

Knowledge Economy and Regional Strategies for Organisational and Sustainable Innovation (KEROSINE)

Aim of the project

Societal aims

Scientific Disciplines

Sociology, Organisation theory, Economy, Political science

Timing

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Budget

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Research partners

Promotor:

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Project summary

Strategic research project

This project aims at broadening and deepening the knowledge on economic restructuring and organisational innovation in Flanders from the perspective of the globalised (knowledge-based) economy and taking into account the regional institutional environment. The major innovative and strategic relevance of the project is its focus on delineating the feasibility of pro-active regional socio-economic management in view of sustainable social and economic development.

The **strategic research questions** focus on the broad field of economic globalisation, evolving institutional contexts and regional sustainable development. Globalisation refers to the actual tendencies with respect to the international level on which social division of labour is (re)organised within economic value chains and the growing networking and integration of communication-, production- and market processes. The theoretically underpinned assumption is that globalisation is manageable by well-informed and strategically oriented decision makers. In view of this, three major innovative perspectives of the project are:

1. Whilst the power of purely macro-economic and statistical approaches of globalisation of transaction chain events is limited, empirical **micro- and meso-level research** have a major and innovative contribution to a better understanding.
2. The systematic investigation of the correlation between the Flemish economic tissue - as the result of strategic organisational decision making - and the **institutional context** is a major characteristic of the different workpackages and of the final outcome.
3. Therefore, the project's focus includes investigation of the **process and drivers** of economic restructuring.

The **scientific work** of the project is organised around four major empirical streams, each of them addressing different dimensions of economic and organisational globalisation and with a complementary approach, thus contributing to comprehensive, coherent and broad knowledge, and a generic synthetic workpackage designed to integrate the outcome. The research phases are:

- the formulation of an empirically driven organisation-theoretical explanation of delocalisation of economic activities based on transaction cost theory and institutional context approaches;
- comprehensive overview and in-depth analysis of collective job loss and job growth events in the Flemish region, explanation and (impact) analysis in relation to a change in transaction strategies and in relation to (sub)regional characteristics, based on a benchmark of the developments in the surrounding countries (France, Germany, The Netherlands);
- the detection of the European-wide emergence of rapidly developing start up companies and assessment in view of perspectives for innovative and sustainable economic development;
- mapping the location of generic business functions of Flemish for-profit companies and the characteristics of transactions for these business functions. To identify motives, the rationality, the criteria used in locational choice and the effects of the implementation. To describe enabling technologies at the level of the value chain and its respective components, and the characteristics of the workforce involved;
- the integration of the data collected in this fourfold empirical strategy in a coherent, centralised and continuously updated generic open-end database on transaction-chains. On this basis, applied sectoral and subregional investigations targeting at stakeholders in view of employment, innovation and regional development strategies can be developed in follow-up projects.

The **derived utilities** have the potential to provide practical and concrete applications beyond the project to be used by either subregional, sectoral and/or government policies in the field of labour market, economic development and innovation. The utilities will be developed based on the principles of concurrent engineering, thereby guaranteeing a reduction of leadtime from strategic basic research into application.

Relevance and valorisation potential

The main strategic relevance of the project is its focus on the feasibility of pro-active regional socio-economic management in view of sustainable social and economic development. A strong strategic societal impact of the project in terms of underpinning innovation, economic, employment and (sub)regional development policies can therefore be expected. The major perspective of the project's utility is the question to what extent the re- and decomposition of value chains include opportunities for sustaining the competitiveness and - organisational - innovation capacities of Flemish companies and for empowering the employability of the workforce. These dimensions are the central pillars of the sustainable development of a regional economy, that this project is targeting at.

Strategic European policy documents confirm that changes in work organisation are a precondition for successful technological innovation and a transition towards a socially and economically sustainable knowledge economy.

A critical review of as well employment as innovation policies, however, highlight the fact that Flanders lacks a system of knowledge management on work organisation and innovation. In particular the fact is neglected that in a globalised knowledge economy the real actors are increasingly networks of companies. Because of this current lack in employment and innovation policy, stakeholders are hampered when developing effective anticipative strategies to manage organisational restructuring and to manage the societal effects of globalisation in view of sustainable development and competitiveness. Public policy and business support organisations have a critical role to play in this respect which points directly at the target audience of this project. Globalisation of competition and the new possibilities opened up by advanced ICT, include the danger that a growing number of organisations are not sufficiently prepared to these challenges and, consequently, will be stuck into traditional markets with no reasonable growth prospects and doomed as laggards in the global innovation competition. The focus of programmatic development on organisational innovation should shift to cover company- and network-level, calling for new conceptual frameworks, that are precisely aimed at in this project.

Hence the project outcome has the capacity to lay the ground for an adaptation of regional and sectoral policies to developments of models of organisational innovation, drawing on external experience but customising and improving it through local knowledge, resources and institutions. Critically, organisational innovation should be seen as the product of a complex process of learning grounded in vertical and horizontal interaction within firms, networking between firms (industry associations, supply chain relationships, etc.), public policy, vocational training, industrial relations, the financial system, and so on.

In this respect, current developments and growing importance of the (sub)regional dimension in employment, social, economic and innovation policies offers several opportunities for further developing the generic knowledge created in this project in order to realise effective uptake. First, a valorisation trajectory during the project include a three-level advisory group involving (a) direct stakeholders from industry, Chambers of Commerce, trade unions, (sub)regional tripartite and joint industrial committees (GOM, STC-Streekplatform), sectoral funds and government bodies and (b) indirect stakeholders such as a.o. IWT, innovation agencies, SERV, VDAB. Second, possible spin off applications, aiming at anticipating and assessing ex-ante decision-making processes related to changing transaction strategies, will be developed based on simulations with the open-end database.

In conclusion: this project is to provide guidance to use the opportunities opened up by the new global communications environment and the global restructuring of value chains for effective organisational innovation in view of more economic competitiveness and more sustainable jobs and in order to promote a regional sustainable development. The institutional embeddedness of the targeted stakeholders provides a fertile seedbed for the projects' outcome, when the need for development of practical application and user-friendly tools and instruments is there.

Expertise, capacity and track records

All project partners, and their respective research units, have complementary institutional competencies and add expertise value to the project's objectives. The research partners combine considerable expertise in fundamental scientifically-oriented research as well as applied policy-oriented research on all the issues developed in this project. The experiences of the promotor and the project leader relate as well to the participation in and management of large research projects, as to the management of knowledge creation, IPR, management issues and valorisation activities.

Two partners of the project, Section for Work and Organisation (K.U.Leuven) and HIVA-KUL, have obviously complementary institutional competencies but they share a common scientific expertise. The combined relevant expertise of both partners refer to: organisational design and change, economic and industrial development, (quality of) work, internal and external labour markets (organisation of work and division of labour), participation issues, HRM and diversity management. HIVA-KUL is one of the largest interdisciplinary policy-oriented research institutes in Flanders, with a staff of more than 80 people, including not only research excellence necessary for the main objectives of this project, but also providing relevant additional expertise and scientific knowledge, in particular with respect to Sustainable Development, Socio-economic Policy and Labour Market and Education Policy. The Work and Organisation sector of HIVA-KUL, the project leader of this proposal, has also come to occupy a key role in a number of leading consortia at European level, including taking up the role of co-ordination of two European projects. The section 'Work and Organisation' of the department of Sociology (K.U.Leuven) is a highly qualified academic centre of knowledge. It consists of three professors and a research staff of 13 researchers. The section is strongly involved in and oriented on international networks that combine several universities and academic disciplines.

Based on their research curricula, these partners have built up scientific excellence and extensive experience related to large research projects on the core issues organisational restructuring, globalisation and innovation. This joint history of consecutive, interrelated projects and synergies contributes to an established 'research area' on the topics addressed in the project. The point of departure of this 'roadmap' is formed in a number of projects in the EC 4FP and 5FP, (TSER and IST). In brief: the SOWING-project was targeted at 'Information society, work and the generation of new forms of social exclusion'. EMERGENCE focused on plausible relocation movements that were caused by technological factors and was limited, in accordance with widely-spread excitement concerning the eEconomy, to transactions in the service sector. STILE 'Statistics and Indicators on the Labour Market in the eEconomy' concludes that the developments related to the Information Society require a re-orientation and innovation of instruments and approaches to investigate the generic aspects of the Information Society. Parallel to this roadmap and starting from a thematic network WHOLE (4FP-TSER), the research partners participated in research (Orglearn) that explored the relationship between, knowledge, skills and competences, and production processes. Finally, an ambitious 4 year Integrated Project called WORKS (Work and Organisation Restructuring in the Knowledge Society) is approved in the 6FP in Priority 7, Citizens and Governance in the Knowledge Society. The project, including 17 international partners, is led by the project leader of this research proposal. This way, several linked projects contribute to the broad, fundamental scientific and strategic research questions, which underpin this proposal. The genealogical typology clarifies the necessary switch that will be made now to research with a strong strategic and fundamental character but aiming at take up of this knowledge for Flemish policymakers. The project proposal will deepen and broaden the knowledge with regards to globalisation and relocation movements of transaction-chains, based on the need felt to address the problems and societal aspects related to globalisation in a more fundamental and comprehensive way and in order to explore how this knowledge can contribute to policy strategies for the Flemish economy, that is typical for its 'open' character.

The third partner, R.U.Ghent, provides complementary expertise. Over the past 10 years, the research group of Bart Clarysse (R.U.Ghent, Faculty of Economics and Business Administration and the Vlerick Leuven Gent Management School) focuses on research in innovation and technology management and entrepreneurship. The group counts about 8 researchers and is headed by prof. Dr. Bart Clarysse. Two researchers recently (2004) defended their PhD on technology transfer and spin-off activities from public research institutes and on the early growth path of research-based start ups. One researcher will defend her PhD on high tech investing in the coming months. The other team members are junior researchers who recently engaged in a doctoral research project. Previous research is published in leading academic journals such as Journal of Business Venturing, Research Policy, Journal of Product Innovation Management, Journal of Technology Transfer, ... The group is well-embedded in the international research community and is the co-ordinator of several European research projects sponsored by the EC such as INDICOM (direct indicators for the commercialisation of research and technologies), INCUPUB (Role of technology policy in incubating European New-Technology Based Firms), Gate2Growth Finance Academia (Network of academics in finance, academia and entrepreneurship). The group is also member of other European networks such as PRIME (Policies for Research and Innovation in the Move towards the European Research Area), ... In 2001, the spin-off Vlerick Venture Coaching. This organisation has the mission to coach entrepreneurs and intrapreneurs and help them to realise the full potential of their innovation projects.

Strategic research project

1. Rationale: global capitalist economic restructuring and regional strategies

This project aims at improving the feasibility of pro-active socio-economic management with the perspective of sustainable social and economic development of the Flemish region in the globalising economy. This should allow actors to exceed a retroactive dealing with unforeseen outcomes. The main scientific innovating contribution of this proposal is its focus on the processes and the drivers of capitalist economic restructuring.

Contemporary economic development is characterised by increasing international connections between corporations, markets and activities. In general terminology, globalisation may thus be described as a process towards 'growing interconnectedness of human affairs' and 'the belief that the world is fast becoming a shared social and economic space' (Held & McGrew, 2000, p.1-45). Globalisation has become obviously revealed by increases in global trade in both product and financial markets. In this respect, globalisation is a new phase in capitalist economic restructuring, marking a departure from previous phases in that it has become broader and more powerful in its reach than ever before (Bradley et al., 2000). The awareness of this interconnectedness has diffused across a large number and variety of social actors throughout society.

Yet, this seems to be as far as the consensus goes. The drivers as well as the impact of globalisation, although actively discussed and debated, are until today poorly understood, and studied from diffuse angles and disciplines, yielding divergent conclusions. On the one hand, some authors go as far as calling the process of globalisation, at least in some respects a myth, a pretext for governments in pursuit of neo-liberal policies (Bradley et al., 2000). On the other hand, others argue that globalisation has 'changed the arenas, and thereby the conditions, of contests between political and economic actors' (Montanari, 2001). While these propositions are not necessarily contradictory to one another, little progress has been made towards a better understanding of the mentioned arenas and conditions. Similarly, while the perception of globalisation is deeply rooted in all segments of society, assessments and appreciations tend to vary widely (Robertson & Khondler, 1998, p.25-40).

During recent years, various political and socio-economic stakeholders have advocated a renewed social compromise for the twenty-first century. Referring to the postwar agreements that were attained between social partners half a century ago, this call implies a renewal of the regulatory foundations of socio-economic life. Whereas the postwar compromises led western societies into a prosperous industrial period, strong arguments are moved forward that similar widely-supported agreements are needed to maintain prosperity and social security in the emerging post-industrial era.

The need for a new social compromise is proclaimed in view of developing strong and far-reaching regulatory transformations that are supported across all relevant stakeholders and that sustain economic prosperity in reconciliation with social protection.

Problematic in the current debates on socio-economic development is that, on the one hand, conflicting propositions are confronted with much rigor, while on the other hand, few arguments are profoundly based on appropriate and firm empirical evidence. In essence, we contend that **economic globalisation, defined as a process of intensified capitalist economic restructuring, is indeed observable, understandable by means of well-targeted empirical research, and manageable by well-informed strategically oriented decision makers.** This proposition may even pertain to a greater extent to small and open economies, as the Flemish economy.

In the alternative scenario, however, vigilance is necessary in order to avoid further polarisation within society on these issues. More specifically, awareness may be increasingly needed to prevent the development of a negative evolutionary spiral in socio-economic policymaking and socio-economic negotiation. Failure to reach policy objectives, (quasi-) failures to reach agreement between social partners, such as the recently failed inter-professional agreement between the social partners, in combination with hampering economic development and increasing pressure on social protection, may give rise to disappointment and disillusion. This may feed back into the radicalisation of discourses within and further polarisation between the socio-economic stakeholders. The origins of these polarising developments are rooted in particular observations of stakeholders within their respective and particular realm of social and economic actions. However, cumulative research results offer more and more substantive insights that may point to fruitful directions for policy development. Such insights are increasingly yielded by research efforts that cross disciplinary boundaries.

The proposed research sets out to provide new substantial evidence in this emerging research stream on socio-economic development, and aims at engaging its results in stimulating and informing socio-economic stakeholders in fruitful policymaking efforts in dialogue.

In the following section, the main components of global economic restructuring are spelled out in relation to the implications to research strategies on socio-economic evolution.

2. Motivation: macro-analytic components of economic restructuring and the need for a meso-approach

In many analyses of the contemporary economy, a strong focus is put on macro-indicators to describe the current developments. However, attention for lower levels of analyses are required in view of offering a better understanding on how the economy evolves. Macro-economic change is commonly analysed by pointing to three interrelated macro-developments:

1. Firstly, economic globalisation is observed in terms of the **increasing exchange on global product and financial markets**. More in general, it is related to the co-evolution and co-determination of cyclical evolutions in the domestic markets of different countries. The common denominator of much writing on the new economy is thus the observation of increased economic mobility. The most important characteristic of the process of economic globalisation is, of course, the increased mobility of capital. Economic agents are said to be scanning the entire globe in search for conditions that increase their profitability. Firms are assumed to follow capital in its volatile course across the globe, although, perhaps, with a certain time lag. Therefore, unambiguous and refutable inferences can be attributed to the thesis of economic globalisation. This is because macro-economic analyses are indeed based on behavioural assumptions regarding meso-level actors and their strategic decisions. In addition, recent research points at the limits and difficulties of approaching phenomena such as offshore outsourcing, a core development in the process of economic globalisation, through mere macro-economic statistical analysis (EMCC, 2004; OECD, 2004). Logically, therefore, the meso and micro level of analysis should therefore be taken as the focal domain of investigation for deriving empirically refutable implications that can underpin currently debated assumptions. This is possible because the development towards economic globalisation is revolving around the increased mobility of organisational segments, or activity clusters, in the production process. This proposal precisely aims at monitoring and analysing these core processes of economic restructuring. The main added value of this research is that it can provide **process-oriented** rather than outcome-oriented empirical evidence, thereby illuminating the black box of assumptions regarding economic restructuring and simultaneously providing perspectives for pro-active, long-term policymaking for sustainable socio-economic renewal.
2. Secondly, economic restructuring is categorised as driving our societies towards **post-industrial economic structures**. The multitude of causal drivers in this development are generally known: the substitution of labour by technology, the expansion of the social and personal service sectors due to demographic evolutions and the gradually increased labour-market participation of women in the postwar era, the delocalisation of labour-intensive industrial activities towards low-wage countries, the emergence of global competitive product markets, changed consumer preferences necessitating the reorganisation of industrial enterprises and the reshuffling and externalisation of industrial business functions into specialised firms in the services sector. Again, these are significant developments emerging from macro-level data on socio-economic change. However, the relative importance of, and effective explanations for each of these developments can not be derived from available macro-oriented data. Yet, such outcomes at the surface of macro-economic indicators are the reflection of **restructuring corporate value chains**, and better knowledge of such processes would offer an obvious added value for better tailoring of policy measures. In general, a better understanding of these value chains could contribute significantly in understanding the significance and impact of specific regulatory changes versus regulatory stasis.
3. Thirdly, the **shift towards a knowledge-based, information and network society** is the third feature of what is conceived as socio-economic restructuring and captured under the umbrella term of the 'new economy'. The notion of network, as it has been diffused by the influential work of Manuel Castells (1996) proclaims the possibility of transferring knowledge and information in an unprecedented scale at very fast pace. This may lead to decentralisation and to greater global dispersal of social interactions and economic transactions. Paradoxically, a strong tendency towards centrality is embedded in the notion of a network as well, as 'the Internet is in fact the technological medium that allows metropolitan concentration and global networking to proceed simultaneously' (Castells, 2003, p.207-246). The argument of the information and

network society depends on the increased knowledge, information and transaction transfers by business actors, calling for flexible implementation, processing and transmission. There is not very much debate surrounding such conclusions. Again, however, such statements should be considered as a source of refutable implications that can be tested in research at the meso-level of organisations. Analyses should begin with the elaborated notions of 'information-' and 'network society'. Where the analyses must end, however, is in making transparent the mechanisms and processes that are concealed by such notions.

Summing up, we argue that the main analytical components which are taken up in the debate on macro-economic restructuring, by academics as well as policymakers and other stakeholders, are often delusive because they are neutralised by aggregation to the highest analytical level. It is at this level that the notions of post-industrialism, globalisation, network and information society are encountered. In this sense, capitalist economic restructuring is assumed to occur at the 'global' level, where it evolves beyond the reach and control of 'local' stakeholders. Global economic restructuring is thus presented as an autonomous process obeying to its own laws, whatever disruptive or destructive tendencies it entails. Such a presentation is fatalistic because the outcomes of economic restructuring are conceived as the inevitable results of economic laws of nature, or economic axioms, while they should be conceived of as the aggregation of a multitude of potential economic alternatives in the process of socio-economic change. It is in this sense of ecological fallacy that Michie et al. have recently (2002) argued that contemporary economic analysis ignores 'the key industrial and organisational detail underlying production' (Michie, Oughton & Wilkinson, 2002, p.351-365). Michie et al., in other words, urge us to understand that macro-economic change is indeed the result of the cumulative effect of conscientious organisational strategies being adopted in our own backyards.

3. Problem statement: institutional mediation of organisational strategies

The main deceptive element in much contemporary analysis on economic development is that the terminology of 'globalisation', 'post-industrial', 'network-' and 'information society' are imposed as universal developments, and as such, divert attention away from the significance of national, regional institutional determinants. International convergence of national arrangements is thus inevitable within such a framework, because 'the logic of efficient organisation is the same regardless of the cultural tradition of the country that adopts it' (Noble, 2000, p.260). Publications that report on contemporary socio-economic development indeed tend to highlight forces of convergence, such as 'the increasingly global scope of markets; strong convergence in the regulation of employment (driven by supra-national standards set, *inter alia*, by the WTO, the ILO and - in Europe - an array of Europe-wide directives); work cultures which are increasingly shaped by the practices of large transnational corporations and the use of global languages, notably English; work practices which are increasingly determined by international quality standards; labour processes which are increasingly 'designed in' to standard software, notably Microsoft products; and the all-pervasive and insidious normative influence of global mass media representations of working life' (Huws, Jagger & Bates, 2001, p.111; Huws, 2003).

Yet evidence rather points to increasing divergence in organisational strategies across institutional contexts, rather suggesting a mutual shaping of organisational and institutional regulation. This has become apparent in research in the field of welfare state analysis (see for instance Esping-Andersen, 1999, p.206; Esping-Andersen, 1990; Crouch, 1999, p.543; Castells, 1996). Convincing evidence has also been delivered by recent comparative organisation research in Europe (Huws, 2003), and by a wide variety of organisation studies (see for instance Lane, 2000, p.207-234; Maurice, 1995 & 2000; Sorge & Brussig, 2003, p.1261-1282; Whitley, 1992 & 1994, p.291) suggesting that the recent development, including the recent development of the information sector, follows the pattern of existing institutional variation, rather than pushing nation states towards institutional convergence in socio-economic policies. Consequently, two interrelated research dimensions need to be addressed:

1. First is the question of effective organisational strategies. On the one hand, by investigating current strategies of organisational decision makers, structural economic change can be addressed and analysed. On the other hand, the issue of effectiveness of organisational strategies can be scrutinised, including organisational innovations in the form of strategies involving the intra- and inter-organisational restructuring - and the relocation - of value chains.
2. Second is the question of institutional influence on firms' strategies. Different effects can be distinguished, including minimising and maximising the feasibility of sustaining specific economic activities, at the expense of other economic activities, and sectors of employment. In this sense effective versus ineffective institutional conditions can be distinguished, and taken up in the policies of a wide variety of stakeholders interested in pursuing policies for sustainable socio-economic development.

4. Cross-disciplinary state-of-the-art in social sciences-literature

4.1 Sociology

4.1.1 Theories on social change

A lot of strands within social theory devote focal attention to socio-economic change. This includes the work of Manuel Castells, but also of Saskia Sassen (1999, p.49-63), in which, firstly, is referred to processes of deregulation and privatisation, legitimated by a 'geo-political-economic discourse' (Sidaway & Pryke, 2000, p.176-190) that promotes free trade and leads towards an increased range of options in the behaviour of globally operating corporations (Sassen, 1999). A second causal process for disruptive change is the process of informatisation, in which corporations increasingly make use of capacity offered by Information and Communication Technology (ICT) (Duff, 2000). Additionally, the rapid succession of capacity enhancements of these technologies is matched by a rapid uptake and usage of these enhancements by economic actors, because communications are associated with an increased economic value (Sassen, 1999). Therefore, ICT can have a substantial impact on work organisation as well as on the business and market-dynamics of which corporations are part (Hoogervorst et al., 2000).

The importance of these evolutions has led social theorists to the conclusion that economic change, and its consequences on work organisations and employment, are the motor of social change in contemporary societies (Beck, 1992). Furthermore, it has been argued that we are 'probably heading towards new large scale conflicts [having] their roots in structures of ownership, production and distribution' (Genov, 1997, p.409-428). These conflicts would involve new categories of social actors, such as a 'transnational capitalist class' (Sklair, 2002), and take place within a society in which 'who we are is no longer a function of where we are' (Giddens, 1990). In such societies, very diffuse influences from disparate parts of the world are influencing our social identities, thereby contributing to the process of individualisation, which in some cases may be associated with feelings of disillusionment, powerlessness and loss of autonomy.

Beck (2000) adds to this that economic and social ways of acting, working and living no longer take place within the container of the state. According to Beck, the main question boils down to this: 'have politics and the state become zombies - dead long ago but still haunting people's minds?' (Beck, 2000). While we may not fully agree with Beck's all-encompassing emphasis on transnational processes, to the detriment of localised processes, we would fully agree with the statement that "procedures have not been developed in those places [...] where explosive sources of conflict will arise, that is, out of the mix of protectionist reactions, the constraints of co-operation [...], which demand concrete and radical changes in the economy, administration, politics and everyday life" (Beck, 2000, p.101).

General sociological theories seek for explanations for all forms of social interaction. Sociologists have thus previously observed the structuring of social interaction around a nation-state concept, and they currently observe the fading away of this core concept along with the emergence of a more diffuse pattern of interaction across nation-state boundaries. In recognition of this diffusion, Therborn (2000, p.51) rightly argues for a 'global sociology' that starts "not from anything supposedly general but from global *variability*, global *connectivity*, and global *inter-communication*". Following James Rule, Therborn subsequently, advocates "for a pragmatic eclecticism, for the judgement of ambitious theories and programmes of inquiry by their contribution to [...] 'first-order questions' about social life, to questions from outside the theory itself, emerging from 'certain tensions of social life itself'" (p.52). Following such an approach would enable us to step aside of conflicting conceptual views and paradigmatic disputes in regard to addressing the problems that are moved forward *a priori* by reality. With Nolan, we would contend that this requires researchers to break "out of the straightjacket of existing disciplinary boundaries" (Nolan, 2003, p.379). Together with Thompson we would "pursue the connections between the various territories - the labour process, employment relations, firm governance structures, capital and product markets - through which restructuring takes place" (Thompson, 2003). And along with, among many others, Swedberg (2004), Storper and Salais (1997), Campbell (2004), Rowlinson (2004 & 1997), North (1984) we see opportunities to do so by following an intermediary path that benefits from insights of sociology as well as economics.

4.1.2 Welfare states and political economy

Liberalisation and privatisation have evoked a fear that globalisation leads to diminishing capacities of states to sustain social policies (Mishra, 1999). It has also been argued that welfare states will have to be restructured and slimmed (Montanari, 2001), thereby competing against one another in a destructive 'race to the bottom' with regard to social standards, sometimes referred to as a process of 'Americanisation' (Crouch, 1999, p.543).

Other authors have contested this thesis, pointing to the generally exaggerated impact of socio-economic change (Esping-Andersen, 1999, p.206; Ferrara, Hemelrijck & Rhodes, 2000; Mann, 2000), or to alternative

effective modes of implementing and sustaining social protection, for instance through the efforts of the European Union with regard to social policy (Walby, 1999, p.118-140). Montanari (2001) demonstrates that, "in contrast with hypotheses on convergence based on economic or technological imperatives, socio-economic reality allows for 'choice of types and forms of institutions', but this, so is instantly added 'implies giving prominence to actors with different power resources involved in conflicts of interests'". Combining both observations adds up to the general conclusion that, 'between, on the one hand, the pressures from a transnational economy which eludes national governance and the national political forces which represent its interests, and, on the other hand, the actual adaptation of policies and institutions within national polities in the direction of market-conformity, there are however institutional barriers' (Montanari, 2001).

The nature of such institutional barriers has been further elaborated in the so-called 'varieties of capitalism'-school of the political economy (see Allen, 2004). The central claim here is that the origins of these barriers can be found in "the organisation of production through markets, and market-related institutions" (Soskice, 1999). The study of Soskice (1999) is path breaking in that it convincingly demonstrates the causal impact of selected institutional methods of co-ordination on, for instance, product market strategies of firms, or innovations within organisations. Soskice's study succeeds in illuminating causal linkages between particular institutional frameworks and particular outcomes in the population of organisations, and leads to the conclusion that "business has sought not deregulation but re-regulation in order to face up most effectively to global markets" (Soskice, 1999, p.134). The authors of the current proposal understand such conclusion as an invitation for additional research. The current proposal therefore wants to take on the challenge of supporting and informing the stakeholders involved in such re-regulation, since a lot of unanswered questions remain in this regard. While studies in the field of political economy are often very revealing, there nevertheless remains a considerable intellectual and empirical gap that must be narrowed in order for these research results to offer real practical relevance. Although Soskice, for instance, manages to establish a causal link between, on the hand, modes of institutional co-ordination and economic outcomes, considerable effort needs to be invested in order to clarify what mechanisms and causal chains that lie underneath this causal observation.

4.2 Social and economic geography

Much literature in social and economic geography takes aspects of location theory on board. However, the majority of literature within this discipline is much broader in scope, embracing the 'dialectical relationship between society and space and between economic, social and political change and territorial development change' (Dunford & Perrons, 1995).

Recently, the discipline is also extensively focusing on new 'geo-economic' and geo-political' developments and discourses (Sidaway & Pryke, 2000, p.176-190). Accordingly, very broad appraisals of these phenomena have recently been debated (see Bryson et al., 2000).

It is, indeed, in view of a better understanding of the process of capitalist economic restructuring that many geographers have promoted more extensive collaboration between separate research traditions, in order to combine the insights of the various disciplines within social science (Benko & Strohmayer, 1995). The current proposal offers interesting prospects for such interlinking. One of the tools that render this interlinking possible, is the notion of 'asset specificity' of transactions in the Transaction Cost Economics (TCE) approach. Among the many elements in TCE that are of interest to geographers, a primarily interesting and determining factor of asset specificity is the notion of 'site specificity' in transaction cost. The elaboration of this notion would particularly benefit from the available input of expertise from social and economic geography.

4.3 Economic science

4.3.1 Organisational location theory and regional development economics

The pervasive implications of recent socio-economic change have also come to puzzle organisational location theorists and regional development economists. The puzzlement stems from the observation that 'regional policies based on the orthodoxy of neoclassical economics, were not up to the task assigned to them' (Malecki, 1991, p.495). Earlier 'classical' work in this field has often theorised starting from a relative assumption of sustainability and stability in time of the locational choices of organisational decision makers. This was based on the observation that, 'in practice, a manufacturer is unlikely to go at great lengths to find the most profitable location; because he knows it will not always be in the same place. He is more likely simply to ensure that this location is within the margin in the long run, relying on his efficiency and enterprise to build up profits' (Smith, 1970, p.73-99). Recently, two distinctive developments have cast doubts on this statement. Firstly, and to an important extent influenced by the debates between sociologists such as Granovetter and important (neo-)institutional economists such as Williamson (1975), the social network model has manifested itself as an explanatory model for the spatial distribution of economic activities. This line of thought indicates that inter-

firm co-operative relations may differ significantly from the organisational boundaries associated with individual firms, and that these relations may be continuously reconstituted (McCann, 2001). Secondly, as advanced technology enables firms to become more 'footloose', their choice of location is becoming more complex as well (Shefer & Rietveld, 1999, p.255-267). Communications technology thus allows firms to overcome geographical restrictions and restructure business relationships by bypassing intermediaries while linking with desired organisations (Malecki, 1991, p.495).

4.3.2 (New) institutional economics

Responding to influential works on the shortfalls of classical and Neoclassical Economics (NCE), (new) institutional economic theory and research has recently experienced an important upsurge. This upsurge is the result of fundamental criticisms coming from the field of sociology, as well as from within economic science itself, against persistent problems that kept arising in neoclassical models. From a sociological perspective, Granovetter, for instance, noted that 'classical and neoclassical economics operates [...] with an atomised, *undersocialised* conception of human action, continuing in the utilitarian tradition. The theoretical arguments disallow by hypothesis any impact of social structure and social relations on production, distribution or consumption' (Granovetter, 2001). From within economics, Williamson (1993) a.o. has criticised the neoclassical approach for, in short, ignoring the cost of running the economic system. Neoclassical models, more specifically, have been prone to ignore the "costs of specifying and enforcing the contracts that underlie exchange" (North, 1984). New Institutional Economics (NIE) hence "spawned from dissatisfaction with neoclassical economics" (Smyth, 1998, p.362).

Institutional economic theory, in contrast to NCE, is based on the notion 'that in each case [...] the institutional framework defines and delimits the set of practicable forms of economic organisation available to economic actors' (Eggersson, 1996). Taking the reality of institutional mediation, or determination, into account, NIE stresses the role of individual decision makers and argues that organisation is influenced strongly by the firm's *internal* 'political' processes' (Furubotn & Richter, 1991). In doing so NIE seeks to extend the range of applicability of neoclassical theory, by considering how property rights structures and transaction costs affect incentives and economic behaviour (Furubotn & Richter, 1991). According to the NIE-perspective, neoclassical models tend to treat such features of the economic system as market externalities or market failures, where government intervention is required, simply to restore the conditions of the perfect market. Unfortunately, however, while the aim of many NIE-scholars is to enrich neoclassical models with NIE-insights, the hybrid models that are moved forward as alternative solutions, have been judged insufficient in overcoming the anomalies that exists between NIE and neoclassical economics (NCE). Notably, "the basic problem here arises from the difficulty of finding [...] 'ideal' configurations for the firm when the array of technological/organisational options is very large, information is costly, and the cognitive capacity of decision makers is limited" (Furubotn, 2001).

Importantly, Furubotn's formulation of NIE's basic problem comes, in many respects, very close to Soskice's central focus on the problem of "the organisation of production through markets, and market-related institutions" (Soskice, 1999). Obviously, depending on the specific mode of the organisation of production and on the specific nature of these market-related institutions, firms may have more, or respectively less, opportunities for finding appropriate technological resources, or for configuring a successful mix of technological and organisational options. Studies in political economy may therefore benefit greatly from conceptual developments stemming from NIE. Such beneficial input has recently resulted in, for instance, the 'Institutional Analysis and Development (IAD) framework'. This framework of institutional analysis has been constructed for assessing two conceptual levels where institutional problems could occur: 'The problem could be at an operational tier where actors interact in the light of the incentives they face to generate outcomes directly in the world. The problem could also be at a policy (or collective-choice) tier where decision makers repeatedly have to make policy decisions within the constraints of a set of collective rules' (Ostrom & Ostrom, 2004).

Until now, two major issues in institutional analysis have remained, however, somewhat unresolved (see on these issues also e.g. Eggertsson 1990; Hodgson, 2004; Campbell, 2004).

Firstly, the question remains in which realms of socio-economic life an institutional focus should prevail, and, alternatively, in which alternative cases neoclassical models would offer a more appropriate and accurate perspective on reality. At least, NCE as a foundation of economic science should be considered as "half a theory" (North, 1984) that must be complemented by transaction cost considerations. With regard to the applicability of NIE in the theory of the firm, Furubotn (2001) maintains that when organisations face problems that are not 'too complex' the assumptions of neoclassical analysis are approximated. This might for instance be true for economic issues of strategic choice regarding relatively standardised products. NCE-assumptions might, on the other hand, be less approximated in case of "a long-run process of ongoing respecialisation and

redefinition of outputs" (Storper & Salais 1997, p.9). Williamson (1993), for instance, has proposed a distinction between several kinds of disturbances that render the assumptions of neoclassical models inapplicable. These disturbances are qualified in terms of inconsequential, consequential and highly consequential. While such distinctions may be useful, they are however not sufficient to finally resolve the tensions between NIE and NCE.

Secondly, quite some anomalies persist in institutional theories with regard to the impact of the institutional environment on the internal structures and process of the firm, and the effect of institutional incentives on organisational change. While this impact is by now empirically well-documented NIE, and notably transaction cost economics, regularly departs from the assumption that the strategic preferences of the firm are exogenous to the institutional setting of which the firm is part. Consequently, opportunities for integrating insights from NIE into studies on political economy are severely compromised, despite the strong need for "frameworks of economic action, centred on conventions among economic actors, which enable them to coordinate, in coherent fashion, ensembles of economic practices leading to successful products" (Storper & Salais, 1997).

Most recently, and fortunately, consensus is growing that 'institutional change can proceed from the most micro interpersonal and suborganisational levels to the most macro societal and global levels', and prospects for scholars to address 'the full array of governance mechanisms at work' (Dacin et al., 2002) 'and the interplay of organisational action and organisational context' (Greenwood & Hinings, 1996) are increasing. Acknowledging the added value of combining interdisciplinary insights, most notably by combining economic and sociological institutionalist insights, "during the late 1990s scholars began calling for a *second movement* in institutional analysis, that is, a more constructive dialogue that explores the ways in which these paradigms might complement and connect to each other" (Campbell, 2004). A promising avenue forward may be found in further exploitation of the 'transaction cost' concept.

4.3.3 Transaction Cost Economics (TCE)

TCE, has been identified - and indeed promoted - as a NIE-approach that has, as such, provoked much internal debate within the economic discipline. Gradually, however, the notion of 'transaction costs' has diffused far beyond the confines of the economic discipline, albeit with some - mostly minor - modifications in significance during diffusion process. Nevertheless the notion of 'transaction' is a strong point of overlap that opens up prospects for interdisciplinary convergence. Opportunities for such a convergence process between the general disciplines of sociology and sociology, most notably emerge within the somewhat more specific domain of organisation theory and organisation studies (see for instance Van Hootegem, 2000).

Williamson, the main proponent of TCE, has indeed developed the approach as an organisation-theoretical account (Williamson, 1996, p.429). The central premise of this theory is that managers choose organisational measures in order to minimise transaction costs (Chiles & McMackin, 1996, p.73-99). The amount of these costs are dependent upon, firstly, the nature of the asset that is subjected to the transaction ('asset specificity'). When an asset is characterised by a high degree of transaction-specificity, then a correspondingly high level of investments must be made in order for the transaction to succeed. This is the case because the value of these investments are predominantly determined by the nature and the sustainability of the relationships between the partners in the transaction (Nooteboom, 2000, p.117-144). Secondly, transaction costs are also determined by the frequency in which the same transaction can be repeated in the course of time. Generally, transactions characterised by a lesser degree of frequency are, at least from the point of view of the demanding party, more favourably arranged in the market. Finally, the amount of transaction costs is also dependent upon the degree of uncertainty regarding the completion of the transaction, because for diverse reasons transactions can vary according to the extent in which they are liable to disruptions. (Williamson, 1981, p.548-577; 1993, p.3-37; 1996, p.429). It is frequently argued by referring to these transaction-attributes that the expanded use of ICT is responsible for an important reduction of transaction costs (Campbell, 2001; Mol, 2001; Grimshaw et al., 2002; De Jonckheere et al., 2003). This is because some form of codification of information is a precondition for the usage of ICT. As a consequence, the availability of information for the transaction partners increases, while the degree of 'uncertainty' correspondingly decreases. In turn, codification also facilitates commodification (Grimshaw et al., 2002, p.186-203). In terms of transaction cost reasoning, 'asset specificity' can be significantly reduced as well, because the process of commodification implies that the asset is more universally available, thereby reducing the specificity of the transactions.

Notwithstanding the value of these insights, TCE has been subjected to several severe criticisms.

A first important problematic aspect of the transaction cost approach concerns institutional-comparative analyses (Wang, 2002, p.153-181). This problem is also recognised by Williamson - the founding father and most important proponent of contemporary transaction cost theory: 'The correct argument is that institutional environment matters and that transaction cost economics, in its preoccupation with governance, has been neglectful of that' (Williamson, 1996, p.230). The black box of the approach is primarily due to the 'uncertainty'-attribute of transactions. This notion lacks conceptual depth, because the sources of uncertainty may

well originate from the institutional environment in which transactions take place. This limitation is also apparent in empirical research on transaction cost economics that emphasises inter-organisational relationships at the expense of casting light on the institutional environment as a source of uncertainty. The operationalisation of uncertainty in much TCE-research is predominantly elaborated by observing the efforts brought to bear by the transaction partners in order to exclude inter-organisational uncertainty (see for instance Wang, 2002). Such limitation of the significance of the 'uncertainty'-factor in the transaction cost approach implies a substantive loss in potential explanatory power. This proposition is indeed supported by research evidence pointing to the high degree of institutional mediation in the diffusion of the 'new' economy (Huws, 2003), as well as evidence pointing to its high degree of spatial concentration in metropolitan areas (Castells, 2003) which can be equally understood as an indication of social and institutional mediation.

A second problem is that studies in transaction cost economics have exhibited a too narrow focus on 'static' efficiency, where it should better focus on dynamic efficiency (see for a discussion Nooteboom 1992, p.283). Many empirical studies in TCE, on the one hand, adopt a far too narrow - indeed reductionist - conception of the transaction cost attributes, while, on the other hand, some of the conceptual foundations of the theory lack sufficient elaboration, and are acquiring an almost metaphorical status (Osborn & Hagedoorn, 1997). Many research approaches based on TCE are therefore of the 'reduced form type and do not adequately test the hypotheses in hand' (Pitelis, 1998, p.1006). In order to stimulate the move from static TCE towards more dynamic analyses, Pitelis has pointed to the notion of 'power', as an important explanatory concept and he effectively discredits Williamson's arguments to renounce this notion in analysis. Additionally, Chiles & McMackin (1996) proposed the addition of the concept of 'trust' in order to proceed more fruitfully in the analyses of transactions. Notably, the concepts of trusts and power are prominently elaborated in organisation studies, by sociologists as well as economists.

4.4 Organisation studies

Illustrative to the importance of the 'transaction cost'-notion in organisation studies, is that e.g. the 'eclectic paradigm' (Dunning, 2000), as well as the 'dynamic capabilities' approach (Teece *et al.*, 2000) make extensive use of notions and concepts from TCE, notably for broadening the analytical scope of the Resource Based View (RBV) of the firm. Pitelis has, strikingly, argued that, in as far as the discipline of (mainstream) economics is engaged in studies with a focus on work organisation, the nature of the employment relationship stands out as a significant element in these studies. With regard to TCE's contribution in this respect, he contended that "TCE explanations of the emergence of the employment relation seem to be one of the only ones still available in the mainstream tradition" (Pitelis, 1998, p.1007). Additionally, TCE is can also be employed in evolutionary economics, since it offers, as Child and McMackin point out "a theory about what governance structures we would observe among a population of organisations at the end of a lengthy evolutionary process, in which the economic system reaches the competitive equilibrium" (Child & McMackin, 1996). Thus, as evolutionary economics "consists of a set of organisational transformations which aim at adapting to the new environment and occur in line with environmental renewal" (Santos & Merina, 2003, p.1438), obviously, economising on transaction costs is central to organisations' adaptation strategies, and is as such extremely relevant to evolutionary economics (see also Child & McMackin, 1996).

Organisation studies have thus opened up possibilities for integrating TCE-insights in critical and innovative ways. Organisation studies can moreover offer pathways for integrating concepts of 'trust' and 'power' with TCE perspectives, within an integrating perspective of institutional embeddedness. Diverse approaches within organisation research indeed focus on the institutional embeddedness of organisations, among which 'power' or 'political' accounts (Clegg, 1990, p.261; Knights & Murray, 1994), the 'societal effect approach' (Maurice, 1995 & 2000; Sorge, 2000), the 'business systems' approach (Whitley, 1992), the 'resource dependency' approach (Pfeffer & Salancik, 1978) and the 'institutional construction' approach (Scott & Christensen, 1995). Uniting these academic actors theoretically as well as empirically is the establishment of a clear connection of the link between organisations and their institutional environment. These approaches are, individually as well as in relation to one another, problematic because of three reasons. A first observation is that these authors are only very limitedly engaged in a debate with one another. This dialogue is caused by a considerable heterogeneity in either the assumptions or the points of departure of these various authors. Conversely, differences in emphasis give rise to important disputes and misunderstandings, thereby functioning as an obstacle for a mutually enriching dialogue (Scott, 1995; Williamson, 1996). Secondly, an assumption that every change in forms of organisations can be traced back to the institutional context is implicit most of these approaches. By emphasising mostly nationally specific institutions the potential spread of transnational models is ill understood by most of these accounts (Smith & Elger, 2000, p.225-240). Multinational organisations indeed carry a potential for enforcing such models on their institutionally disparate plants without by institutional interference. For that reason such organisations can more or less be characterised as 'decontextualised organisations'

(Giddens, 1994), because their scope for action is less mediated by institutional influence. By simultaneously distinguishing between different extents of institutional embeddedness, organisation theory can also respond to the criticism that theory has up until now not satisfied the need for assessing the impact of globalisation (Parker, 1999, p.234-256). A third point is connected with the previous in that the gaps in the conceptual framework are matched by gaps in empirical work as well. Available research is limited to establishing and demonstrating the connection between the 'existence' of institutionally specific forms of organising. Yet, by treating institutional embeddedness as given, potential explanatory power is lost by adopting the 'false' assumption that institutional limitations 'are predestined and irreversible' (Pfeffer & Salancik, 1978). A further inference derived from 'institutional alignment' (Knights & Murray, 1994) between organisations and their environment is that in those instances where economic activities disappear from a certain locale, a causal link should be observable between the event of delocalisation and the relative failure of the aligning process. Empirical research that is able to establish such a link is still non-existent (Pfeffer, 2003).


Finally, this is also related with much work in the field of sociology of work and organisation. In the latter field of study, much emphasis is put on the production structures within and between organisations. As the notion of asset specificity within TCE is specified, there is also a clear link with traditional research issues in sociology of work and organisation (see Van Hootegem, 2000), regarding amongst others, work organisation, job content and the development of skills. As has become clear (see for instance Grimshaw et al., 2002, p.186-203), these aspects are all heavily decisive with regard to the relocation of transactions.

Interesting and promising attempt to integrate concepts of transaction costs, trust, power and economic development are gradually emerging, most notably in recent work of Toms and Filatotchev (2004) and Woolsey and Delbridge (2004). These publications deliver a more comprehensive and sophisticated framework for analysing economic restructuring. These approaches, however, require further refinement, elaboration and validation by means of targeted empirical research.

5. Objectives of the research agenda

5.1 Guiding criteria and features of the research agenda

Our proposal is dedicated, not so much to take a stance in many of the currently raging theoretical debates, but rather to empirically address the assumptions and debated concepts of existing research approaches. While this obviously makes the proposal vulnerable to criticism of not making clear conceptual choices, five major arguments imply that the proposed research agenda is useful and feasible in a large-scale empirical study on economic transformation. The focus and depth of the research agenda is, indeed, guaranteed in two interrelated ways.

-  Firstly, many international academic journals, in various disciplines that are concerned with socio-economic reality, are substantially moving, either towards the boundaries of their disciplinary paradigms, either across disciplinary boundaries in order to enrich their frameworks with insights from complementary disciplines. In doing so, empirical results are yielded that are increasingly functional in nurturing targeted interdisciplinary complementarity of insights and operational development of research instruments. Our claim is that a good breeding ground is emerging, and that sufficient substance is available for eventually combining interdisciplinary conceptual perspectives into powerful explanatory models at the meso-level of empirical analysis. Meanwhile, the continuing relevance of sophisticated neoclassical models of economic phenomena is obviously demonstrated by recent valuable empirical studies (for instance Marmolo, 1999; Haltiwanger & Schuh, 1999; Rama, 2003), and these contributions must indeed be acknowledged for a full understanding of economic reality. It is, however, in the interest of advancing the explanatory power of sophisticated neoclassical models that a maximisation of the explanatory power of complementary approaches of the economy must be pursued. The latter challenge is fully taken on in the current proposal.
- Secondly, recent studies reveal the **inadequacy of the existing statistics** and the difficulties and limits of purely macro-economic and statistical approaches of contemporary globalisation of value chains. In particular the extent of phenomena linked to **the restructuring of economic value chains and the (re)location of transaction chain events**, such as offshore outsourcing of business services for instance, are prone to these limits. To cite one example: "It is important to emphasise, along with the OECD (van Welsum, 2004), that there are currently no reliable statistical indicators of the extent or nature of global outsourcing. Neither the trade statistics nor the occupational and employment statistics in the EU (or elsewhere) make it possible to track imports and exports of business services in a manner which would make it possible to identify with any accuracy which components of international trade in services represent jobs (...)" (Huws, 2004, p.11).

- Thirdly, we will pursue a central focus on transactions or transaction-chains as a *unit of analysis*, complemented by empirical subprojects that take additional units of analysis into account. Notably, this does not imply the adoption of TCE as the guiding theoretical framework of the proposed research. The proposal, by contrast, rather takes the shortcomings of the TCE-framework as its starting point, and subsequently moves forward in a strategy that, on the one hand, shares the main unit of analysis of TCE, but that, on the other hand, approaches this unit with renewed conceptual instruments. Empirical strategies that allow to illuminate and assess the basic assumptions underlying existing heterogeneous conceptual models and approaches, are the appropriate - and ultimately the only feasible, trajectory - to reach maximum explanatory power.
- Fourth, we uphold the consistent choice to take the meso-level of organisational structures and strategies as the appropriate *level of analysis* in the research and simultaneously guarantee institutional variation in the design. Particular knowledge and insights into the **drivers and processes**, and thus the opportunities for a pro-active management, require an alternative innovative approach at this level of analysis.
- Finally, the **focus on a variety of organisational forms in a variety of institutional contexts** is a crucial condition for validity and reliability in testing the impact of institutional variables. As has been highlighted by the state-of-the-art review, and most notably by a heterogeneous range of state-of-the-art empirical studies, **organisational development is highly mediated and determined by the institutional environment to which organisations are exposed**. The interaction between institutional environment and company strategies can be observed in the actual policies adopted by decision makers at the level of the firm. Moreover, this should be explicitly observable in Flanders, characterised as a small and open economy, which is more intensively subjected to international competitive pressures. In such a competitive environment the need for ‘institutional alignment’ might be more stringent than in a highly organised large-scale economy, in which protective belts against outside competitive shocks may be operative.

5.2 Strategic research questions

The proposed project sets the objective of explaining the dynamism in the economic structure of the Flemish economy. The available research is too focused on demonstrating the linkages between the existence of certain organisational forms in correlation with the existence of certain institutional forms. The added value of the current proposal is that it is set up to focus on processes and drivers in monitoring and analysing the evolution of the Flemish economic tissue - as the result of strategic organisational decision making - in correlation with an evolving institutional context. The design should therefore allow distinction between several important determinants.

- Firstly, research should map the **empirical diversity of organisational strategies**. These can take on three distinctive basic forms of organisational adaptation. In the past, most organisation studies on innovation investigated organisational innovation in the assumption that the institutional environment exerts limited influence on organisational change. This empirical possibility is acknowledged in the middle column of Figure 1, where institutions exert a neutral impact. In reality, however, institutions are most often likely to determine which organisational strategies are feasible and which are not.
- Therefore, and secondly, the institutional environment can exert a favourable influence on organisational alignment strategies in changing market conditions. This can be done by restructuring supply chains via the options of internalisation versus externalisation of business functions. This is expressed as **organisational alignment** in Figure 1.
- Thirdly, institutions may act as a barrier for organisational alignment. In the context of a globalised economy this may either lead to failures or bankruptcy of firms, or to organised strategies of institutional realignment by economic actors. In the latter case organisational decision makers can choose to manipulate the availability of production resources in the external environment in reconciliation with the organisational requirements. More specifically, this results in organisational attempts to adapt its environment in accordance with organisational needs, which in practice will most often result in the **delocalisation of business functions** to a different institutional constellation.

Figure 1. Institutional impact on organisational strategies

	Institutional impact		
	Positive	Neutral	Negative
Organisational strategy	Organisational alignment	Intra-/inter organisational innovation	Institutional alignment
Socio-economic outcomes	‘Upskilling’ and ‘reskilling’ versus ‘deskilling’ ‘Job loss’ versus ‘job gain’		

The collection of data and the subsequent analyses should therefore lead to answers on the following strategic research questions:

1. What **strategies** do organisations adopt with regard to the management of supply chains in order to sustain competitiveness, and what is the significance of these strategies? That is, on what scale are these strategies being adopted?
2. How and to what extent does the **institutional context** impact upon the feasibility and occurrence of specific organisational forms and strategies? What is the role of various and evolving (sub)regional **institutional environment** in these strategies?
3. To what extent do the organisational strategies vary across **business sectors**, and how can this variation be explained by organisational variables?
4. What socio-economic consequences do these strategies imply in terms of employment? This involves impact assessments in terms of:
 - a. employment: job loss versus job gain;
 - b. qualification requirements: upskilling and reskilling, versus deskilling.
5. To what extent do relocations of economic activities occur at the expense of, respectively in favour of **sustainable development**?

5.3 Research strategy

5.3.1 Success indicators

The success in the research can be assessed by monitoring whether the following research objectives have been attained in the project:

- mapping the incidence of the organisational strategies aiming at the restructuring of supply chains, and assessing the cumulative significance of these strategies for macro-economic change;
- analytically distinguishing between the role of localised institutional impact and the transnational transfer of business practices;
- distinguishing between the explanatory power of organisation-specific explanatory variables and the impact of organisational (institutional) context;
- assessing the impact of specific institutional circumstances on a variety of business functions and strategic organisational decision making;
- assessing the viability of specific organisational strategies and specific business functions in a variety of institutional circumstances.

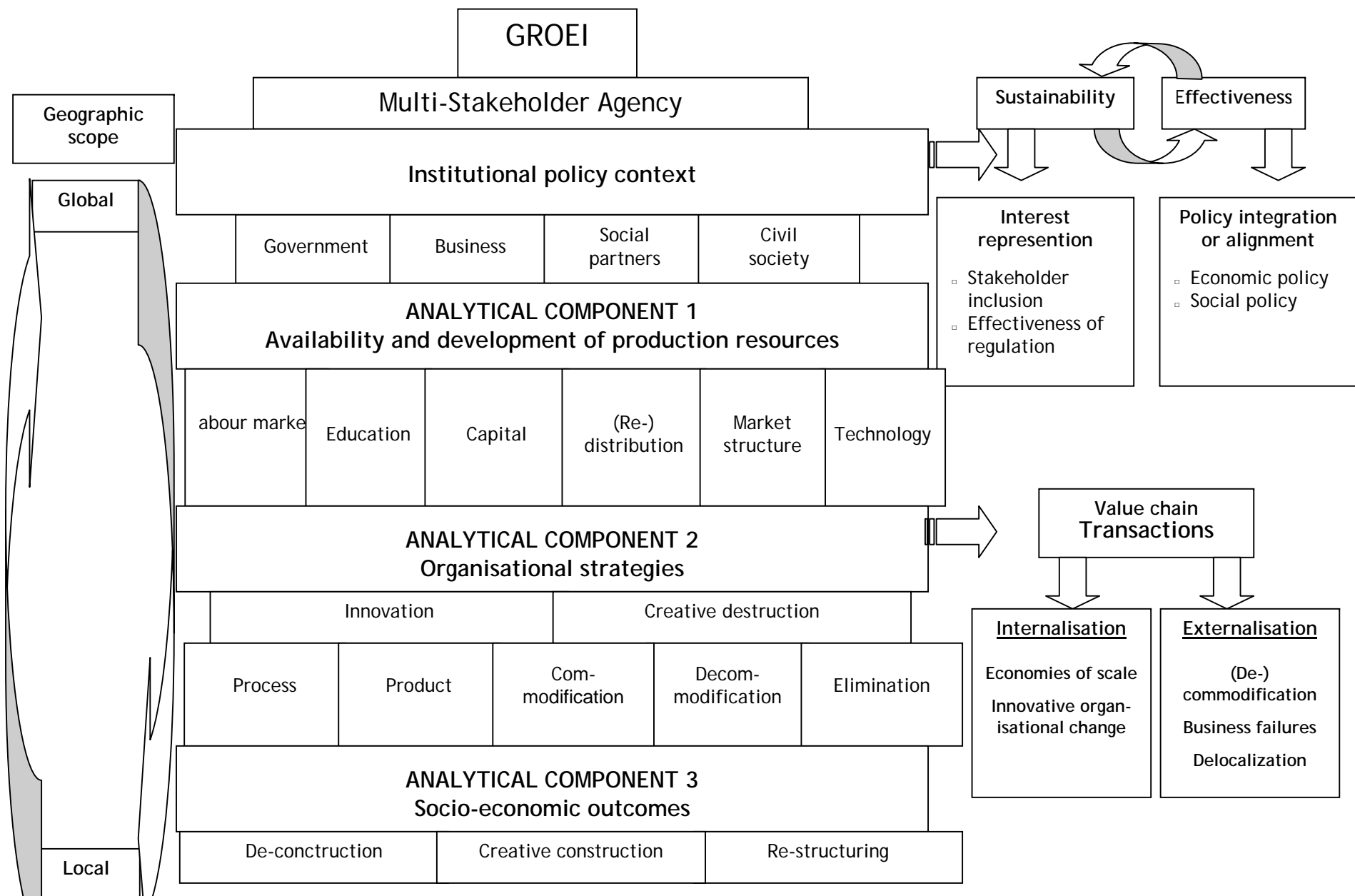
5.3.2 Design requirements

The above objectives impose several requirements on the research design. More specifically, the design must allow the analysis of the impact of a **variety of institutional frameworks** on a **variety of organisational forms**, and more specifically the investigation of the adaptation process of these organisational forms within a variety of business sectors. This can not be done within one single type of research designs. This necessitates, by contrast, the combination of **several complementary empirical and analytical strategies**, each cumulatively contributing to the development of a broad knowledge framework for monitoring and analysing socio-economic transformation. Several elements are necessary in such a frame, because this frame must be built on several essential knowledge components.

1. The construction of the first knowledge component requires in-depth knowledge of **organisational strategies** in the face of global economic development. These organisational strategies differ according to business sectors, and according to the integration or interconnectedness of firms into international or transnational markets or business networks. The development of an accurate and in-depth understanding of various organisational forms and strategies require context-rich methods of data gathering, which implies the adoption of **qualitative research methods**. This is because the complexity of the interacting intra- and inter-organisational variables in combination with institutional variation requires extensive data-collection on each case, which is not feasible in large scale surveys.
2. Secondly and in addition to developing a thorough understanding of organisational strategies, the research design should also provide a potential for **assessing the economy-wide importance and significance** of the various strategies. Therefore, a representative survey, which allows for the inter-sectoral comparison of organisational strategies and specific generically defined business functions, should be carried out.
3. Thirdly **dynamics in the employment structure** must be detected, in order to assess the relative importance of structural change in the labour market, that is: first, the elimination of jobs through failures or delocalisation of specific economic activities; second, the commodification or de-commodification of work via the externalisation of economic activities either to government services or households, either to the

- market; third, the substitution of jobs by capital investments in technology; and finally, the elimination of jobs because of the attainment of higher levels of labour productivity in the work organisation.
4. Fourthly, organisational restructuring of value chains can yield diverse quantitative and qualitative effects on the labour market, which must be linked to wider socio-economic outcomes in terms of **social inclusion versus exclusion**, as well as in regard to **qualification structures on the labour market**. Furthermore, the analysis must allow drawing the link between these outcomes and processes of organisational change. An increase in the number of organisations externalising specific business functions, may on the one hand, lead to negative employment effects in terms of job loss, and to negative effects in terms of job quality as well, if this is evolution accompanied by task impoverishment in the work organisation. The cumulative (macro-level) socio-economic effects of these organisational developments would be measured in terms of declining employment rates and deskilling of the workforce. On the other hand, organisational restructuring may well take the form of - selective - internalisation of activities in integrated organisational units. In the latter case, evidence on the nature of these units, in terms of job content and skill requirements of the workforce, and the geographic location of such organisational units is of extreme importance. This is the case, because, these organisational entities are or may become a valuable source for job creation in the present and future. The assessment of the employment effects in terms of the quality of functions in the work organisation is a complementary design requirement. Alternatively, and finally, the stretching of supply-chain sequences across geographic and organisational units, may take shape in the formation of innovative and highly flexible organisational units, functioning as responsive knowledge-based nodes in the value chain. In the latter case, the design should enable the detection of employment effects in terms of upskilling of the workforce, in line with the formation of innovative and flexible organisational knowledge cores, whilst the quantitative significance of these developments in the employment structure is a complementary design requirement.
 5. Fifthly, the design must enable to **monitor the international - or transnational - development of value chain restructuring**. Data should allow assessing the emergence and importance of the global restructuring of transnationally interconnected networks of organisations. In the light of developing global product and investment markets, the worldwide availability and connectivity provided Information and Communication Technology, and the political trend towards the dismantling of trade barriers, this is a crucial requirement in the design. The widely acknowledged role of multinational corporations is gaining importance as a result of the mentioned developments, and should thus be subjected to rigorous scrutiny in the research design.
 6. Finally, the design must explore and analyse the role of the **institutional regulatory context in relation to sustainable socio-economic policies**. This involves analytical multivariate analysis in which **institutional variables** are cross-tabulated with **organisational variables**, such as the viability and feasibility of diverse economic activities or business functions in relation the institutional context.

By providing evidence on these issues, the research can provide crucial input into policy processes, and enhance the feasibility of well-targeted, and therefore sustainable, and adaptive regulation in view of socio-economic objectives.



6. Work programme and research plan

This project is about the question of economic restructuring and organisational innovation in Flanders from the perspective of the globalised (knowledge-based) economy and taking into account the regional institutional environment. The main outcome is to contribute to the development of anticipative strategies to manage these changes and to allow stakeholders and policymakers to underpin decision making processes with regards to innovation, economic and labour market policies in view of the emergence and maintenance of Flanders as a competitive and knowledge based economy, that provides sustainable jobs and labour market opportunities in view of social inclusion of all Flemish citizens.

The scientific work of the project is organised around five major empirical streams, each of them addressing different dimensions of economic and organisational globalisation and with a complementary approach, thus contributing to integrated, coherent and broad knowledge. In order to address the research question as outlined above the project is divided into five workpackages, including four parallel streams that consist of complementary approaches to the basic research questions, and a general synthetic workpackage designed to integrate the outcome of the four streams and that will contribute to the output that is most directly aiming at the target audiences of the project.

The project explicitly adopts a strategy to include methodological triangulation in most of the workpackages. This is not only relevant in view of (1) combining the different scientific disciplines, (2) to combine economic research, organisational research and research on the institutional context of organisational decision making processes, but last and not least, (3) because this triangulation is a key strategy in socio-economic research to enhance and safeguard the validity and reliability of the empirical data.

6.1 Workpackage 1: Transfer of business practices - Embeddedness of international and inter-organisational transfer of business and supply chain practices in relocation events

The facilitation of access to markets because of economic liberalisation and the increase of technological resources for communication exchange across large distances can function as an important facilitator for the transnational delocalisation of economic activities. The formulation of an empirically driven organisation-theoretical explanation of such delocalisation of economic activities is the key objective of this first workpackage.

As described earlier in this project proposal, the transaction cost theory is an organisation-theoretical approach that is able to partially explain the growing economic globalisation of the value chain and delocalisation of activities, more specifically in relation to the intensified usage of ICT. In addition to transaction cost economics, which are useful to explain growth and decline of supplier buyer networks, specific attention will be attributed to the role of research and development activities in explaining the location choices of production facilities. It has been illustrated that the presence of knowledge poles or districts of creativity (Florida, 2002) attract R&D facilities, which in turn can improve the position of particular production plants in a multinational network (Bartlett & Ghoshal, 1998). These explanations find their tradition in location theory (Brakman & Garretsen, 2004), which is the second theoretical stream which offers a partial explanation for delocalisation. Finally, institutional economics and neo-institutionalism have focused on aspects such as labour market regulation as an institutional factor. Not only the factual issues are important here, also the perceived institutional environment, which might drive business units to stop these activities through processes of mimetic and/or coercive isomorphism. Mimetic isomorphism means that multinationals not always make rational choices but tend to follow the choices made by their competitors. If for instance automobile company closes a plant in Belgium because of perceived high labour costs, this induces company B to do the same. Coercive isomorphism describes a similar process under pressure of peers. For instance, the board of directors of different companies might contain the same persons. The perception of the institutional environment in a particular country might lead to decisions evoked by these persons. An important innovative aspect of this workpackage, as of all workpackages of this project, is that it aims at combining the different theoretical perspectives in one single conceptual frame. On the one hand it rejects strong economic determinism, assuming that forms of socio-economic policy, as distinguished in typologies of welfare capitalism, maintain their role with respect to economic of change because of globalisation. On the other hand, it repudiates the idea that economic, organisational and technological developments are irreconcilable with extensive socio-economic protection. Rather, the project seeks to find out to what extent institutional arrangements (based on both organisational and institutional dynamics) support the emergence of new organisational structures.

This workpackage's objective is to empirically contribute to, on the one hand, the relation between the transaction cost approach, the organisational logic of outsourcing and delocalisation deriving from transaction costs arguments, location theory embedded in the analysis of high tech regions and the approaches of institutional

embeddedness, and on the other hand also to clarify the implications of the embeddedness of organisations in their institutional environment. This institutional embeddedness has several dimensions: the relationships with local decision makers, the integration into local or regional interest groups, such as sectoral organisations or employer organisations, and networks; aspects of the hiring and insertion of staff and issues related to labour costs, flexibility and learning/training. Aspects of financial support of the enterprise, the extent in which requirements in relation to infrastructure and logistics can be met, and the availability of, resp. involvement in research infrastructure are still other important factors of institutional embeddedness.

The following research hypotheses will be investigated in this first workpackage:

- Hypothesis 1: (a) Whether or not companies engage in delocalisation is a function of the *characteristics and structure of the production process*. Production processes in which employees have a considerable autonomy, and in which employees may, precisely for that reason, become an important source of disturbances, are less easily 'transferable' than highly standardised production processes. In other words, standardisation and codification leads to a reduction of transaction costs and increased delocalisation. (b) The reduction of transaction costs because of codification and standardisation leads to an increase use of markets as a means of organising transactions.
- Hypothesis 2: (a) Whether or not companies engage in delocalisation is a function of the *embeddedness of the particular company in the knowledge environment*. Business units, which have considerable connections with knowledge agents such as universities and public research institutes are less easily 'transferable'. In other words, knowledge spillovers lead to co-location.
- Hypothesis 3: (a) Plants from which activities are cut in the delocalisation process are characterised by the *problematic nature of alignment of the production process with the supply of production resources from the environment*. This problematic nature is exhibited in aspects such as:
 - a relative lack or, the problematic nature of rather rigid relationships between decision makers at the level of the organisation or sector on the one hand, and political decision makers, employee representatives, civil society or competing organisations and sectors on the other hand. In plants that are chosen as destination location of new activities, these relationships are by contrast characterised by a more *flexible and co-operative nature*;
 - organisations which are engaged in competitive relationships with one another on product or service markets, benefit by engaging in mutually co-operative relationships, for instance by means of sectoral agreements or participation in employer's federations. To the extent in which organisations are dependent on the local institutional context for similar production resources, such co-operative relationships are more likely to develop in order to aim for interest representation towards the institutional environment;
 - aspects of the insertion of employees in the work organisation, labour costs, flexibility, the training of employees, as well as of the current and future workforce on the external labour market;
 - the extent to which requirements in relation to infrastructure and logistics can be met, financial support of the enterprise.
- Hypothesis 4: Codified and standardised production processes are less context-sensitive (cf. hypothesis 2), than production processes, which require a rather autonomous participation by employees (cf. hypothesis 1). Because of the stringent shaping of the work organisation and the application of technology, the production process is less liable to disturbances, and the organisation as a whole will also be less dependent on its environment.
- Hypothesis 5: The delocalisation of activities will be more difficult and will encounter more obstacles when the organisational decision making process is itself *embedded* in the institutional environment. In this case the decision making process is less liable for de-contextualisation. This implies for instance that activities of certain organisations are more likely to be delocalised when the headquarters of an organisation is situated in a distinct institutional setting than the organisation in question.

This approach requires a research design, which allows assessing the impact of inter-organisational factors, as well as the interinstitutional variation in the context of organisational decisions. It is well-known that the issues of changing organisations are mostly investigated in case study research, which allows a comprehensive analysis of the organisational context, configuration of the organisation, determinants and effects, but which in turn, hampers generalisations and, in particular, comparisons that are precisely important in this workpackage. A first step in the research methodology is to construct a database of business units, which have experienced extreme levels of growth or decline in employment. It is assumed that these extreme changes in employment are often associated with location decisions. The micro economic sources (see also workpackage 2) such as the social balance allow us to calculate average growth rates in employment over the years 2002-2003 at the level of the legal entity. Since the unit of analysis is here a business unit, which can be a plant, an R&D lab or any other autonomous functioning subpart of a larger company, the legal entity is usually an appropriate proxy. However, to avoid overlooking major job changes that are not taking place at the level of the legal entity (e.g. an R&D department which downsizes drastically but is not a separate legal entity so that the

downsize in numbers disappears in the total employment figure of the company), additional qualitative insights will be obtained from newspaper and other secondary data sources.

Based on the statistical sources, that allow to register job loss and job growth events, the first aim is to construct a population of business units, which exhibit extreme growth in employees or decline of employees that can be attributed to location decisions or at least decisions to invest or disinvest in the particular business unit. Extreme growth is identified as the upper percentile of business units (measured as legal entities) among those business units of which the total number of employees decrease or increase at least with 20 over the period 2003-2004. The overall aim is to construct a comprehensive database that includes the business units in Flanders which have experienced an extreme growth or decline in employees.

Among the population of business units (legal entities) that have experienced such a growth, eight to twelve will be chosen for in depth analysis. Because this is a relatively understudied domain and we want to discover more about 'how' and 'why' business units are delocalised, we adopted a qualitative research design with case studies in multinational companies. Qualitative data allows also extracting theory from the ground up (Eisenhardt, 1989; Yin, 1994; Langley, 1999). In view of the aims of this workpackage, it is important to develop an appropriate qualitative research method that allows in-depth analysis in a comparative perspective. Explicit attention will be paid to issues such as dealing with the generalisation of case study findings (external validity) as well as tactics for dealing with internal validity and reliability. In this respect Qualitative Comparative Analysis (QCA) of cases as the appropriate technique for analysis (Ragin, 1987 & 2000). QCA is particularly appropriate and promising 'in the evaluation of theories remains to permit an opening of the 'black-box' to expose the fine grains of the process - or several reinforcing or counteracting processes - which mediate between a causal situation and a given outcome' (Stokke, 2003). The project will specifically address the development of a comparative methodology for organisational case study results by benchmarking the available research approaches with respect to concrete procedures and techniques of case study research, such as the design of the research sample, selection of cases and the analysis of the case study material. A strong basis for this preparatory methodological work will be provided by the wide range of experiences from European and national research projects from the partners involved, including the expertise of the workpackage partner in the use of specific methods on qualitative data analysis, QCA.

This methodological attention is also important because the results of this workpackage will serve as an important input for one of the next workpackages, such as a large establishment survey and survey of starters. The identification of the different aspects of organisational and institutional context will indeed be necessary to construct a set of indicators that are measurable through such a survey.

Particular attention is given to the selection of cases and the construction of the population of business units. A relatively homogeneous population to draw case from is important because of the following reasons.

In accordance with economic cycles in specific market niches a heterogeneous selection of cases would make it impossible to distinguish between the effect of institutional variation and interorganisational relationships on the one hand and the effect of delocalisation as rationalisation strategies in periods of economic downturn on the other hand.

Case selection should account for comparability between cases with regard to economic and technological development on a global scale. Certain economic activities, such as social services, may be embedded in local institutions to an extent that institutional variation is not possible.

Thirdly, relatively homogeneous cases can also put extra focus into the design, because the measurement of 'asset specificity' can focus on the production process and the work organisation.

Previous scanning of potential cases can contribute to a more targeted selection in which the criterion of 'frequency of transaction' is taken into account. Overrepresentation of organisations at the end of the supply chain might increase the importance of this criterion to the extent that the other explanatory variables are neutralised;

A screening would also provide guarantees regarding the comparability of 'size' across the selected cases.

With regards to the regional dimension, a regional variety of economic systems, institutional aspects of labour market regulation and the different regional dynamics with regards to concentration and decentralisation of activities as a result of the global re-division of work will have to be taken into account. At this stage, it is however not possible yet to make final decisions neither on the precise sectors or activities in which the multinational companies are active, nor on the regions that will be involved in the institutional comparative analysis. The latter is indeed dependent on the actual delocalisation decisions and events that occur in the companies that will be investigated. To realise the workpackage objectives, it is vital that different regions involved in the project aiming to investigate the importance of labour market, economic and institutional variety, are included in the case study research.

As a unit of analysis, 8 to 12 companies will be selected based upon the growth in employees of their business units (identified as legal entities). Because we look at the top percentile of growth in business units (this

means we select the 1% top and 1% bottom of business units in a population which at least grows or declines with 20 FTEs over a two year period), we limit ourselves by definition to the larger multinationals with business unit presence in Flanders ... Preferably, each business unit identified is matched to another business unit within the same group, which is located in a different region but which has undergone the same investment or disinvestments, location or relocation decision made at group level. This matched pair is used to guarantee enough regional variation at institutional level. The number of case studies thus amounts in total between 16 and 24. Systematic comparative analysis of cases will be used on the data as the most appropriate method of analysis. Observations will be conducted in the source- as well as the destination locations within the multinational group. As a method of data collection semi-structured interviews will be employed with:

- decision makers at the level of headquarters and establishments of multinationals;
- stakeholders at the level of headquarters and establishments of multinationals;
- stakeholders and representatives at the level of the region, s.a. socio-economic policymakers, representatives of employer organisations and unions.

Issues to address in the case studies will be based on the theoretical approaches that form the basis of this workpackage and that are described in the project rational, strategic research questions and state-of-the-art of this project.

Workpackage 1 summary sheet: Transfer of business practices

Start date: month 1

Objectives

The formulation of an empirically driven organisation-theoretical explanation of delocalisation of economic activities taking into account explanations from transaction cost theory and institutional context approaches.

Description of work

- Based on the inventarisation and evaluation of the different approaches to case study research a comparative research design for the project will be developed.
- Update of focused literature and of the basic hypotheses in view of the translation into information to be collected in the interviews.
- Selection of multinational companies on the basis of the different criteria as preliminarily included in the workpackage description and eventually refined.
- Negotiating access and reaching a commitment on the part of the organisations to take part in investigations. Concluding agreements with companies on co-operation in a case study.
- Finalising and adaptation of interview guidelines and research plans.
- Preparing and carrying out organisational case studies, including in total 2 business units of at least 8 and maximum 12 different multinational companies, eventually at different locations in view of institutional comparative analysis.
- Conducting the guided interviews in the organisations with the aim to fully cover the different issues.
- Analysing the case study material to test the hypotheses.
- Transcription of interviews. Interpretation and analyses of the cases.
- Reporting of the case study material.
- Regularly provide input into other workpackages.

Milestones

- M1.1: Case study method, finalised hypothesis and interview instrument: month 3
- M1.2: Input into WP3 and WP4 in view of survey development: month 12
- M1.3: Detailed case descriptions: month 19
- M1.4: Input into MATRIKS: on regular basis, and for the final findings: month 21

Deliverables

- D1.1: Final report including input into WP5: month 24

6.2 Workpackage 2: Job loss and job growth analysis

This workpackage aims at investigating the dynamic character of organisational restructuring in the perspective of globalised value chains and the impact on the regional economy and labour market. Data gathering in this workpackage will yield a comprehensive overview and in-depth analyses of collective job loss and job growth events in the Belgian regions (Flemish and Walloon region, and Brussels-Capital district) that can be assumed to be related to a change in firms' strategies or capabilities with regard to the organisation of transactions of organisations, in particular concerning outsourcing and/or relocation of activities, or, particularly in case of job growth, the establishment of new enterprises, or branches of new enterprises. From the regional perspective both collective job losses, collective dismissals, and considerable job growth, for instance related to the expansion of companies or the setting up of new establishments, are relevant in this respect.

The 'comprehensive overview' aims to explain job loss and job growth, and to explore how these events vary in correlation with the regional specificities of the Flemish, Brussels, and Walloon regional economy. The 'in-depth analysis' will focus on the processes, including decision making, antecedents and causes, and effects on the regional labour market and economy. In this phase, considerable attention will be paid at the institutional, political and social aspects of both job loss and job growth events. In order to reveal whether the performance of the Belgian national economy -and its three regions- can be enhanced by re-designing institutional configurations, data collection on main job growth events will be replicated in Belgium's neighbouring countries. This replication will thus be executed in, notably, the Netherlands, Germany, Luxembourg and France. Besides feasibility considerations, the inclusion of these countries is first and foremost legitimate on analytical grounds, since the main international trading partners for Belgian firms are located in these nations. The objective of this international comparison is to reveal if, - and if so, to what extent, and why - the Belgian regions either, underachieve, or, inversely, outperform these nations in the creation of employment in specific sectors, or in relation to the economic viability of specific types of organisations. The empirical objectives of the workpackages in the neighbouring countries is thus to detect the job growth events, and to compare these events to job growth and job loss patterns that are tracked and identified for the distinct regions within the Belgian economy. Data on job loss instances in the neighbouring countries are not required for this endeavour. Data gathering and analysis will only be concentrated on the detection of job growth events in these countries, which is obviously required in order to detect institutional intermediation of the causal link between (national or regional) institutions and specific patterns of economic development.

This workpackage is divided in three phases, which are elaborated in the following sections.

6.2.1 Tracking and monitoring of collective job loss and job growth events

The tracking and detection of considerable job loss and job growth events in the three Belgian regions will mainly be based on secondary analysis and desk-research activities, in particular by analysing statistical data, digging out newspapers and other media, but also contacts with local and sectoral trade unions and Chambers of Commerce. In the neighbouring countries, the detection of job growth events will be undertaken on the basis of administrative and statistical data. In this respect, the research team can draw extensively on the knowledge and expertise acquired in the frame of the European STILE (Statistics and Indicators on the Labour Market in the eEconomy) project (see www.stile.be). This project, led by the projectleader of this proposal, included a SWOT analysis of different sources to track and investigate (sectoral and occupational) labour market mobility.

The **statistical data** for the Belgian regions includes mainly labour market data, macro-economic data (e.g. trade statistics) and micro-economic sources (e.g. (social) balances), but also social security data, for instance data from the so-called Datawarehouse labour market data, that is based on the integration of different social security databases. The Datawarehouse allows to conduct detailed labour market mobility analysis of individuals, as well as to track collective mobility patterns (for instance if mobility of several, more than 20, individuals of one company is registered), that can relate to entry and exit of enterprises and establishments.

Based on the statistical sources the first aim is to track these 'statistical' changes in employment figures to get a clear insight into the '**moves**' behind the figures. In the first place it is important, to eliminate cases with changes in employment related to pure legal actions of companies, such as the change of the company name or legal basis, or related to statistical 'noise' such as the simple change of NACE classification of a company. Secondly, and more important, the aim is to construct a **comprehensive database** that includes an assignment or explanation of the moves of jobs in terms of:

- a. decommodification (a product or service is no longer supplied on the market because of fall in demand) versus commodification (a new product or service is launched);
- b. win or loose competition (other competitors take over the market or are forced to leave the market); or
- c. relocation of activities (including as well 'inflow' as 'outflow' of jobs in the Flemish region).

To construct this comprehensive 'population' overview for the Belgian regions, the quantitative analysis of statistics will be complemented with **document analysis and information from (local) stakeholders**.

Based on this comprehensive overview, a selection of **Flemish cases** will be done in view of in-depth analysis in a next phase. The final selection of cases that will be subjected to further analyses will be based on the question if the job loss/growth events are indeed related to changes of transaction strategies of companies, for instance, in relation to the global company strategy in case of multinational corporations.

The period to analyse job loss and job growth events is not only dependent on the availability of statistics, but it is also important to include in the (further) analysis a period long enough to allow a considerable investigation of the societal effects of these events, without affecting the reliability of retrospective interpretations of the respondent. Therefore, this 'tracking phase' will cover the years 2006, 2007 and eventually 2008. At this stage it is not possible to fix a definite number of cases to include in this workpackage, because of the limitation of job loss and job growth events to those related to changes in transaction strategies of companies. This selection can only be made definitively after the completion of quantitative data with additional qualitative information (from media and stakeholders), i.e. when there is a clear insight in the reasons for job loss or job growth.

6.2.2 Context analysis of job loss and job growth events

Once events of important job loss and job growth are identified and the relatedness of these events to changing transaction strategies is assessed, the next step is to focus on the **background and the context of the decision making processes**. In view of preserving the feasibility of the project's data collection and analysis this detailed in-depth background and context exploration will be limited to Flemish cases. The information from the document analysis will therefore be complemented with focused interviews with relevant stakeholders from the company, the establishment, trade unions and other relevant individuals. In view of this, an interview instrument will be developed suited for the different stakeholders. The following information will be collected:

- **general information** about the company challenges and strategies at the short and long term, e.g. (de)commodification of products, product innovation, opening up or focusing markets, assessment of the competitive situation, etc.;
- what was the **primary objective** of a change in transaction strategy (e.g. company reduction versus expansion, company reorganisation versus isolated actions, geographical relocation, outsourcing, ...)?;
- **detailed description of the decision making process** including assessment of regional assets and (dis)advantages from the company's perception;
- in case of job loss: **destination** of the jobs; in case of job growth: **source** of the jobs;
- information about the characteristics of the **workforce** involved;
- the identification of determinants for this event, including the **facilitators and constraints**, costs and benefits. The motives, the rationality, the criteria used in locational choice and the effects of the implementation;
- **assessment of different (regional) policy-related factors** s.a. tax regulation, infrastructure, availability of research infrastructure, labour market related aspects, such as labour costs and wage policies (wage restraint and a structural labour cost reduction by means of a decrease in social security contributions), flexibility and working time regulation, training infrastructure, availability of skilled work force, etc.;
- what were **decisive factors** in the outcome of the decision making process of the changed transaction strategy?;
- **accompanying measures** and issues related to the negotiation of the impact of job losses;
- the **role and/or involvement of stakeholders** in the decision making, in particular unions and (regional) politicians;
- involvement of official bodies of **information and consultation of employees** in the decision making. Application of legal requirements on information and consultation of employees in the case of job loss events. Measures to anticipate the consequences for the employees, especially about the employability of the involved workers.

Where the empirical results derived from international statistical sources show strong divergence across institutional settings, and specifically where Belgium underachieves in terms of job creation relative to the performance in certain sectors or in relation to certain types of organisations in neighbouring countries, additional and **targeted international case studies** will be conducted that allow to reveal what institutional determinants can account for divergence in job growth. International and regional disparities may for instance be associated with an unfavourable investment climate for multinationals from one socio-geographical entity to the next, or in the relatively limited availability of opportunities for expansion of organisational activities. Whereas the analysis of the in-depth Flemish case-studies will move forward the most relevant variables, the significance of these variables can subsequently be validated in these international case-studies. Such procedure ensures that

international data-gathering employs a parsimonious focused perspective, so that analytical leverage is maximised and the burden of data collection be contained within manageable proportions.

For this investigation the research team can use relevant methodological expertise developed in both the EMERGENCE (Estimation and Mapping of Employment Relocation in a Global Economy in the New Communications Environment - 5FP/IST) and the MOOS project (Making Offshore Outsourcing Sustainable - ESF), although both projects lacked the possibilities to include in-depth investigation of the role of the regional institutional environment and the role of regional actors in the decision-making processes.

6.2.3 Regional impact, regional coping strategies versus institutional embedding

In case of job loss events, further attention will be paid to analyse the regional strategies to cope with the effects of collective redundancies. Coping strategies can be investigated at the company level and the regional level.

At the regional level, the focus can be on **regional policies** and on co-operation between actors from the **private sector** (Human Resources Management of the dismissing companies) and the **public sector** (Labour Administration, Education and Training). In Flanders the instruments used for (the prevention of) dismissals concentrates mainly on **employee training and the regional employment policy**. This means that a special role is set aside for local government and social partners. Several recent major downsizing events have been accompanied by the establishment of employment cells and/or Territorial Pacts, where different stakeholders are involved in strategies for coping with 'sudden impacts' on the regional labour market such as collective dismissals or downsizing. However, this is not always the case. One of the questions in this respect is the detection of antecedents and determining factors that facilitate the mobilisation of regional actors to develop such strategies.

At the **company level**, linear reduction of the number of employees can be compensated with the use of different instruments in the process of downsizing: redesign of the work organisation, in combination with, for instance, training programs and jobrotation. In investigating job loss events at a deeper level, it is important to take into account the fact that net job loss from a company may also be influenced by such internal reorganisations. If lay-offs are inevitable, the option of outplacement may be employed, in which a third party (the outplacement office), paid by the employer, gives supportive services and recommendations to laid-off employees. In case of **job growth events** due to the fact that the regional labour market is a 'destination' of changed transaction strategies of companies, major research questions relate to provisions that are made to facilitate the institutional embeddedness of new companies, such as impact on regional policies with regard to infrastructure and logistics (accessibility of industrial sites, mobility), the provision of (skilled)workforce, training facilities and skills development, the inclusion into the existing sectoral and regional industrial networks (e.g. Chambers of Commerce) and system of industrial relations at different levels (sectoral, regional, local, etc.). If applicable, analytical conclusions on such embedding processes from the Flemish data will be compared and benchmarked in relation to the cases of job growth in the neighbouring countries.

Also, the results of this workpackage will serve as an important input for one of the next workpackages, such as a large establishment survey and survey of starters. The identification of the different aspects of organisational and institutional context will indeed be necessary to construct a set of indicators that are measurable through such a surveys.

Workpackage 2 summary sheet: Job Loss and Job Growth

Start date: month 1

Objectives

Comprehensive overview and in-depth analysis of collective job loss and job growth events in the Belgium regional economies and Belgium's neighbouring countries with dedicated attention to regional and international disparities, explanation of these moves in terms of changed company strategies and in depth analysis of events that are assumed to relate to a change in strategies with regard to the organisation of transactions within the company, in particular outsourcing and/or relocation of activities, and with regard to transactions at the level of the population of firms. This in-depth analysis will focus on the processes, including decision making, antecedent and causes, and effects on the regional labour market and economy, and at the institutional, political and social aspects of as well job loss as job growth events.

Description of work

1. Tracking of collective job loss and job growth events

- Analysis of quantitative data on collective job loss and job growth events (provisionally period 2003-2005).
- Construct a comprehensive database for the Belgian regions, the Netherlands, Germany, Luxembourg and France, that includes an assignment or explanation of the moves of jobs in terms of (a) (de)commodification, (b) competition or (c) relocation.
- Complementing of these data with document study and interviews with local stakeholders in view of construction of comprehensive overview and selection of Flemish cases of job growth and job loss.
- Data collection and analysis in relation cases of job loss and job growth events in the three Belgian regions and related to changes in transaction strategies of companies.
- Data collection on job growth events in the neighbouring countries and analytic detection of disparities between the Belgian and the foreign data.

2. Context-analysis of collective job loss and job growth events

- Refinement of the research design. Finalising and adaptation of interview guidelines and research schedule.
- Preparing and carrying out in-depth analysis, including interviews with stakeholders at the company level.
- Conducting the guided interviews with the aim to fully cover the different issues with major focus on the background, context and decision making process.
- Transcription of interviews. Interpretation and analyses of the cases.
- Conducting interviews with prominent informants and/or relevant stakeholders in targeted foreign cases of significant job growth.
- Reporting of the case study material.

3. Regional impact, regional coping strategies versus institutional embedding

- Development of a research design. Finalising and adaptation of interview guidelines and research plan.
- Preparing and carrying out the Flemish case studies, including interviews with stakeholders mainly at the regional level.
- Conducting the guided interviews in Flanders with the aim to fully cover the different issues.
- Transcription of interviews. Interpretation and analyses of the cases.
- Validation of the outcome of the analysis of the Belgian cases, in relation to selected foreign cases of significant - and in comparison with the Belgian trends - relatively disparate instances of job growth.
- Reporting of the case study material.
- Regularly provide input into other workpackages.

Milestones

- M2.1: Database construction for comprehensive overview: month 4
- M2.2: Qualitative method, finalised interview instrument: month 9
- M2.3: Input into other workpackages in view of survey development: month 12
- M2.4: Input of the results of Flemish case studies and the statistical data in view of international targeted comparisons: month 12
- M2.5: Detailed case descriptions: month 19
- M2.6: Input into MATRIKS: on regular basis, and for the final findings: month 21

Deliverables

- D2.1: Comprehensive overview of job loss and job growth events in Flanders: month 8
- D2.2: In-depth analysis of specific events in Flanders and in neighbouring countries: month 19
- D2.3: Comparative analysis of major foreign events of job growth in relation to the Flemish cases: month 24
- D2.4: Benchmark of the Flemish institutional context in relation to the international findings: month 24
- D2.5: Final report including input into MATRIKS: month 24

6.3 Workpackage 3: Start up companies - Monitoring and analysis of context sensitivity in relation to the institutional environment

This workpackage is designed to detect and evaluate the emergence of rapidly developing start up companies. The aim of this workpackage is to assess whether or not, and under which conditions, these newly emerging forms of economic activity offer perspectives for innovative and sustainable economic development. The project's set-up acknowledges that firm's may come into existence for a variety of different reasons. New firms may develop on the basis of their enhanced innovative capacity via the (re-)combination of transactions-sequences, and the competitive edge which is derived from this (re-)combination. These strategies may indeed lead to successful business results and subsequent organisational expansion. By contrast, new firms may as well come into being as a result of the optimisation of existing transaction-sequences in search of cost-effectiveness or the exploitation of market opportunities. In the latter case, the primary goal may not be the attainment of innovative organisational forms, but rather the enhancement of organisational efficiency or market strategies. Such a strategy will be pursued via the delocalisation or expansion of existing transaction-sequences, rather than the innovation or re-combination of transaction sequences into or inside genuinely new organisational forms.

Whilst the first row of Figure 2 (below) sheds light on newly emerging firms from the perspective of organisational structure, the first column displays a distinction from the regional economy perspective, in which the nature and the significance of altering transaction-sequences are assessed. More specifically, the latter distinction enables to assess under which conditions new start ups instigate, either, the creation of additional economic activities in existing sectors of employment, or rather, the development of innovative economic activities in new sectors of employment.

On the one hand, additional economic activities in existing sectors of employment can result from two distinct processes of organisational transaction-chain restructuring. Firstly, it may originate from the international transfer or expansion of business activities. A typical example of this category is the establishment of a subsidiary of multinational. Secondly, it may come about through movements of centralisation and decentralisation into, or away from, existing geographically organised production centres. From the perspective of regional economic units, this may incur job gain for some regions, and job loss for other regions.

On the other hand, start ups may also point to the emergence of innovative organisational forms creating new sectors of employment. Again, this may result from two distinct developments in transaction-chains. Firstly, start ups may originate from the re-combination of existing transaction-sequences in new and innovative organisational structures that are able to offer an enhanced innovative potential. Secondly, they can also be the result of the emergence of genuinely new and rapidly expanding enterprises. This would concern new enterprises displaying a very rapid organisational development, as a consequence of a particularly successful competitive edge, enabling smooth market integration and effective expansion of market shares.

Figure 2. Classification scheme of newly emerging organisations

	Restructuring of organisational activities in the value chain	Expansion of existing economic activities
Delocalisation of organisational activities	<p><u>1. Externalisation and divisionalisation</u></p> <p>Creation of new enterprises via the geographical restructuring of business functions</p>	<p><u>2. Branch establishment</u></p> <p>The establishment of additional local subsidiaries of large enterprises, including multinational corporations</p>
The creation of innovative organisational forms	<p><u>3. Mergers and joint ventures</u></p> <p>Creation of new enterprises as an innovative measure for enhancing process- and product development</p>	<p><u>4. New competitive enterprises</u></p> <p>Fast growing innovative enterprises displaying important degrees of market penetration</p>

The design of this research package is related to research based on organisational evolutionary models. This line of research has demonstrated that 'that [organisationally] internal variables (such as age, size, legitimacy, organisational form, past behaviour, initial conditions, and so on) determine both the organisational tendency to take up change processes and the death rate' (Santos & Merino, 2003). The innovative character of the current contribution in this line of research is, firstly, its empirical focus on sustainable start up companies that offer opportunities for sustainable employment creation in the future. Secondly, by expanding this perspective on evolutionary organisational models with an institutionally comparative component in the design, the impact

of variation in institutional structures and policy practices on sustainable employment creation can be assessed.

Within this workpackage, an empirical survey strategy will be adopted which allows the monitoring of the diverse dimensions highlighted in Figure 2. The research design is built on intended European-wide monitoring of start up companies, allowing for analytical cross-tabulation of nationally specific variables with, the features specific to the concerned organisations (including the four dimensions in Figure 2, in addition to variations, such as sector, size, structure, economic performance and so on).

Available statistical and administrative databases, enable to derive sub-databases of organisations that fit the selection criteria of the design for inclusion in the population. These selection criteria are:

1. organisations with an operational age of maximum 4 years (founded no longer than 4 years in the past);
2. organisations employing at least 50 employees.

Available Flemish Data indicate that number of organisations that meet these criteria adds up to a population of 109 organisations. (This is the number of Flemish for-profit enterprises that have been founded after August 1999, and which are employing at least 50 employees in September 2003.)

The operational research design of WP3 will be developed in accordance with several distinctive and subsequent research phases, as follows:

1. Phase 1: Evaluation and benchmarking of population databases

Analysis and benchmarking of the available databases in the EU member states: the structural indicators published by Eurostat include three aggregate indicators on enterprise demography (birth rate, death rate and survival rate). Deriving the envisaged population in the subsequent research phase will make use of these kinds of data, albeit in desegregated form. It has been confirmed in previous communication with the appropriate experts at Eurostat that the compilation of the population of organisations that meet the above criteria for inclusions is indeed feasible on a European scale, by making use of the available data. However, these data tend to differ across countries in how they are measured. The first phase of the research thus compares and evaluates the different available databases, and the analytical opportunities that are offered by these databases.

2. Phase 2: Effective delineating the research population

The databases that have thus been assessed and benchmarked will be used for the demarcation of the relevant research population across-countries. As demonstrated by the mentioned Flemish data, the population will amount up to a number of enterprises that is limited enough to make data collection at the level of the whole population feasible.

3. Phase 3: Data collection and analysis

- Data collection will be executed via websurvey questionnaires. These will be translated in the various maternal languages of the respondents in the surveyed countries. A validity check of the translations will be executed by researchers, who share the maternal language with the questioned respondents.
- Subsequently, statistical tests of significance of the various clusters of organisations in the population and across the nation states will be executed.

Workpackage 3 summary sheet: Start up companies

Start date: month 13

Objectives

1. Benchmark of available administrative and statistical databases.
2. To conduct a census survey of these start up companies, collecting data, on a.o. the following aspects:
 - origin of the questioned organisations;
 - strategies with respect to product- and process innovation;
 - work organisation;
 - economic performance and marketing strategy;
 - attainment and management of production resources.
3. To analyse the collected data in order to discriminate between various clusters of start up companies in a variety of institutional contexts.
4. Reporting.

Description of work

- Evaluating and benchmarking the administrative and statistical databases available in the different EU member-states with regard to their reliability and validity in constructing research populations of start up companies.
- Codetermination of the data gathering phase on the basis of the QCA results in WP5.
- Development of the websurvey and dissemination to the respondents.
- Data analysis, which will proceed autonomously as well as in alignment with MATRIKS.
- Reporting.

Milestones

- M3.1: Evaluation and benchmark of available databases: month 16
- M3.2: Design of questionnaires and the websurvey-format, including tests of validity and reliability: month 20
- M3.3: Data collection: month 26
- M3.4: Data cleaning and analysis: month 31
- M3.5: Input into MATRIKS: month 36

Deliverable

- D3.1: Final consolidated report of the survey including input into MATRIKS: month 36

6.4 Workpackage 4: Restructured values chains

The re-composition of global value chains and the evolution towards globalisation of economic activities in a specific sectors, involving at the same time tendencies of geographical concentration and decentralisation of business functions, is a basic empirical and analytical target of the project. The re-composition of value chains implies that different business functions, such as R&D and design, production/manufacturing, transport and logistics, sales and customer related activities are more interwoven than ever, in particular because of the use of Information and Communication Technologies. Recent research, undertaken by the European Monitoring Centre of Change (Huws et al., 2004) and the OECD (Van Welsum & Vickery, 2004) point out at the difficulties, or even impossibility to measure these de- and recomposition of value chains with existing macro-economic statistics.

This empirical phase, developed in this workpackage, is therefore focusing on the organisational restructuring in a globalised economy, that is, the actual network configuration of a value chain. The workpackage consists of a major survey of establishments, carried out by means of computer-aided telephone interviews. The costings in this proposal are based on carrying out a random sample of private establishments, stratified by sector and by size (number of employees). The purpose of the survey is to quantify and map the transaction strategies of generic business functions of private-profit companies. The questionnaire will be constructed as an algorithm to address the different organisational models and characteristics of generic business functions. The basic questions are: How are Flemish companies organised in globalising value chains? What are tendencies of outsourcing and subcontracting, networking, decentralised and market driven organisation structures? What are dominant models of economic relations within the network? Insourcing versus outsourcing/subcontracting, the use of self-employed, the establishment of cost-profit units, etc.?

This phase includes:

- the investigation of how generic business functions are organised in value chains, in particular the question of organisation via different forms of market transactions (trade, outsourcing, subcontracting) versus 'in-house' organisation;
- the identification of determinants for this, including the facilitators and constraints, costs and benefits of these organisation within the value chain. The motives, the rationality, the criteria used in locational choice and the effects of the implementation will be probed;
- the use and description of enabling technologies at the level of the value chain and its respective components;
- the description of major characteristics of the workforce involved in the generic business functions at the level of the value chain and its respective components;
- the generic business functions under investigation include a.o. :
 - a) core production or service activities, including:
 - i) production and assembly work respectively service work;
 - ii) process control activities;
 - b) information processing work, such as:
 - i) data capture and data processing;
 - ii) systems and software maintenance;
 - c) customer-related work, such as:
 - i) sales;
 - ii) customer related management and services;
 - d) 'creative work', such as:
 - i) editorial and design functions;
 - ii) Research and Development;
 - iii) systems and software development;
 - e) administrative work and Human Resources Management, such as:
 - i) accounting and financial management;
 - ii) training and staff development;
 - iii) HRM activities such as recruitment and selection, outplacement, etc.;
 - f) transport and logistics, including packaging.

This list of issues to be covered in the survey will to a considerable extent be fine-tuned on the basis of the qualitative information collected in the previous workpackages on job loss and job growth and the Transfer of business practices. Indeed, this survey will include the insights gained from these researches and translate them into indicators that are questionable in survey research, i.e. telephone interviews.

The results of this survey will be of value in their own right but will also make an essential contribution to WP5 MATRIKS.

Drawing on extensive experience in quantitative and qualitative research on relocation, organisational innovation and labour market-related issues, the team can build in particular on the experience of two previous surveys, organised in the frame of European and National research projects that included the development a methodology which, for the first time, captured the full range of possibilities for delocalising (telemediated) employment within a single research instrument designed for use in a random sample of establishments. The algorithmic design of the questionnaire has already been used successfully in these projects. The survey is in addition innovative different other aspects:

- the survey design avoids the problems associated with either a solely sector-based or an occupation-based classification of employment by adopting an approach based on business activities, whilst still producing results capable of triangulation with existing data-sets based on standard industrial classification schemes;
- it makes it possible to allocate (delocalised) activities geographically, thus contributing towards a mapping of the emerging pattern of employment at a regional level;
- it captures the entire range of spatial possibilities in where work is carried out, on an activity by activity basis. The results are therefore capable of providing statistical data;
- it captures information about the delocalisation of work whether this is carried out in-house, under contracts of employment, or outsourced, in a traded relationship;
- it captures information on outsourcing from the perspective both of the purchaser and of the supplier, thus making it possible to record the position of the respondent in the value-chain and thus map this variable geographically;
- it captures qualitative information on the criteria used by employers in selecting a location.

In contrast to the previous projects, where this method was developed, the survey is however enlarged to a considerable extent by including not only telemediated work and information-related business functions, but addressing the whole range of generic business functions that are organised within a value chain. This way, a complete database covering the whole Flemish private-profit economy (as well SMEs as large corporations) will be available and allow to acquire insights in the distribution and characteristics of the organisation of business functions in the Flemish economy.

The survey will include SMEs with 5 employees and more. Many of the most dynamic new 'eBusiness activities' starts in very small companies. It is clear from previous research that the position of SMEs in (global value chains) set specific problems. SMEs are on one hand seen as pivot of the knowledge economy while on the other hand research reveals that it is not obvious to get connected to the electronic highway. When the barriers for the optimal use of the eServices patrimony are not mapped and by way of management eliminated, an economic segmenting menaces in which the benefits of the prevailed government investments will profit a limited number of economic actors. In short SMEs clearly form a critical factor in the actual economic development.

Workpackage 4 summary sheet: Restructured value chains

Start date: month 13

Objectives

1. To map the location of generic business functions of Flemish enterprises (private-profit companies with 5 employees or more), and the characteristics of transactions for these business functions.
2. To identify motives, the rationality, the criteria used in locational choice and the effects of the implementation.
3. To describe enabling technologies at the level of the value chain and its respective components.
4. To describe the major characteristics of the workforce involved in the generic business functions at the level of the value chain and its respective components.

Description of work

- Construction of a realised sample of 2 000 Flemish establishments from private profit establishments stratified by sector and establishment size (measured by number of employees) with private profit enterprises with 5 employees or more.
- Development of an algorithmic questionnaire.
- Development of interview guidelines and CATI application (computer-aided telephone interviews).
- Setting up a pilot testing for 300 establishments.
- Carrying out the establishment survey of employers In all, 2 000 interviews will be carried out.
- Database export and cleaning.
- Analysis of the data.
- Reporting of the results.

Milestones

- M4.1: Draft questionnaire and CATI scripts: month 14
- M4.2: Pilot: month 15
- M4.3: Final questionnaire and sample: month 18
- M4.4: Fieldwork: month 21
- M4.5: Database cleaning and analysis: month 33
- M4.6: Input into workpackage 5: month 35

Deliverables

- D4.1: Final consolidated report of the survey including input into MATRIKS: month 36

6.5 Workpackage 5: MATRIKS - Mapping and assessing transaction relocations in interconnected knowledge societies

The data collected in the project's fourfold empirical strategy will be integrated in a coherent and centralised generic database. In the course of the project, the content of this database will be continuously updated by the data that have been collected in the four parallel workpackages (WPs). The central database will thus be constituted of data on various transaction-sequences. More specifically, the integrated database offers data on transaction-chains which, (a) are present in the Flemish economy, (b) flow out of the Flemish economy, or (c) flow into the Flemish economy, or which (d) are non-existent in the Flemish economy.

Transaction-sequence	(a) Present	(b) Inflow	(c) Outflow	(d) Absent
WP1: Transfer of business practices	+	+	+	+
WP2: Job loss and growth		+	+	+
WP3: Start up companies	+	+	+	+
WP4: Restructured Value Chains	+	+	+	

By making use of the research results of the four distinctive workpackages, each transaction-chain can be scrutinised on the basis of the specific characteristics of each transaction-chain. Such a scrutiny incorporates and supersedes the specificity of transaction itself, because it refers to transaction-sequences, which are made up of unique combinations of transactions, as they are empirically observed.

These monitoring and assessment tools will be constructed beforehand, by the different research partners, each employing their specific disciplinary expertise. Therefore, since the construction and development of these research instruments is primarily specific to each discipline, they will be followed by extensive training in field research, with regard to valid and reliable data gathering.

Examples of assessment factors include:

- Factor related to the transaction-chain:
 - descriptions: what is the nature of the activities concerned and how are these activities interlinked;
 - fluidity: the relative velocity in which specific activities are de- and delocalised;
 - dynamic nature: present versus absent, inflow versus outflow;
 - source versus destination: where do transaction sequences come from, and whereto are they heading.
- Economic factors
 - initially, a case-specific assessment is envisaged. If such an assessment appears to be unfeasible in the course of the project, a responsive switch can be made to national and international statistics or other complementary data. Assessment criteria include:
 - capital versus labour intensity;
 - substitution-ratio's;
 - wage costs and R&D efforts;
 - infrastructure-intensity.
- Judicial factors
 - the extent and nature of legislative variation with respect to transaction-sequences across institutional contexts, including:
 - labour legislation;
 - legislation on the protection of the environment;
 - legislative locational obligations.
- Organisational factors, such as:
 - the degree of vertical and horizontal integration in the work organisation;
 - knowledge intensity:
 - high versus low intensity;
 - the relation between knowledge and context, and the embeddedness of work process knowledge;
 - the feasibility for codification of the knowledge that is employed in the production process;
 - the degree of process- and product innovation.
- Determinants of geographic specificity
 - assessing the degree in which the production sequences within the transaction-chain are liable to geographic restrictions, or, conversely, the degree in which production is facilitated by the availability of geographically specific resources. This may involve:
 - the availability and access to natural resources;
 - the availability of spatial and logistical infrastructure;

- the position in the geographical value-chain network, ranging from a central to a peripheral position.
- Impact scan of the impact on sustainable development
 - mapping the impact of the integration of locational chains in the economy in relation to diverse aspects in the perspective of sustainable development. Examples of categories that will be scanned in this regard include:
 - the consumption of natural resources;
 - waste production and waste management;
 - impact in terms of opportunities and risks for precarious categories of workers on the labour market;
 - measurement of the impact on the turbulence of economic changes with regard to entry and exit movements on the labour market, patterns of labour mobility, cultural heritage.

Although the database contains qualitative information, this information is highly formalised. For each variable that is included in the database, only a limited number of distinctions are retained. The transaction-sequences function as cases in the database, and the database contains a rather large amount of characteristics for each case. Accordingly, the number of cases is unknown in advance, and rather limited in comparison to the number variables that provide data on the cases. This kind of data-format is particularly appropriate for analysis by means of Qualitative Comparative Analysis (QCA). As a method of analysis, QCA offers the opportunity of avoiding a range of common analytical problems associated with case-study research, as well as traditional survey-research.

This approach was developed by Charles Ragin (1987, 1991, 1994, 2000) in *Qualitative Comparative Analysis (QCA)* and further refined by other researchers within political science and sociology (see De Meur & Rihoux, 2002), overcomes some of the limitations of the traditional research methods and is an interesting research strategy for students of global restructuring. Considerable expertise has been built up in the research team with regard to this method. Additionally, the research group of the project-co-ordinator is a founding member of an international group of scholars, among which is also the founding father of QCA methodology, Charles Ragin (see www.compass.org).

QCA is a case approach which implies that each individual case is considered as a complex entity (a whole) which needs to be comprehended and which should not be forgotten in the course of the analysis. Different parts of each case are understood in relation to one another and in terms of the total picture that they form together. The organising idea in such research is that the parts of a case may constitute a coherent whole and that they have an integrity and coherence considered together. The restructuring of value chains, for example, can not be understood by considering each aspect separately. By contrast, such complex empirical phenomena can only be understandable by taking the complete configuration of all relevant aspects into account. What matters most is that the researcher makes sense of multiple aspects of each case in an encompassing manner, using substantive and theoretical knowledge to guide the research (Ragin, 1987 & 2000). The essence of case analysis is to understand the configuration of variables and how that configuration is linked to a certain outcome. However, this does not have to imply that each case is unique and that it is useless to look across cases which factors determine the absence or presence of a certain outcome.

Consequently, it is comparative in the sense that it does not treat each case as unique but tries to explore and find similarities and differences across cases by comparing configurations. Hence, it tries to cluster cases in a causally significant way and, in this way, expose diversity across cases. Diversity is here understood in terms of types of cases. The goal is to unravel the different causal conditions connected to different outcomes, thus revealing causal patterns that separate cases into different subgroups. Consequently, in comparative research the examination of diversity - patterns of similarities and differences - goes hand in hand with the study of causes. Generally, researchers expect different causal conditions to be linked to divergent outcomes in interpretable ways. Thus, the goal of the researcher's examination of patterns of similarities and differences is to identify how different configurations of causes produce different outcomes across the range of cases included in a study.

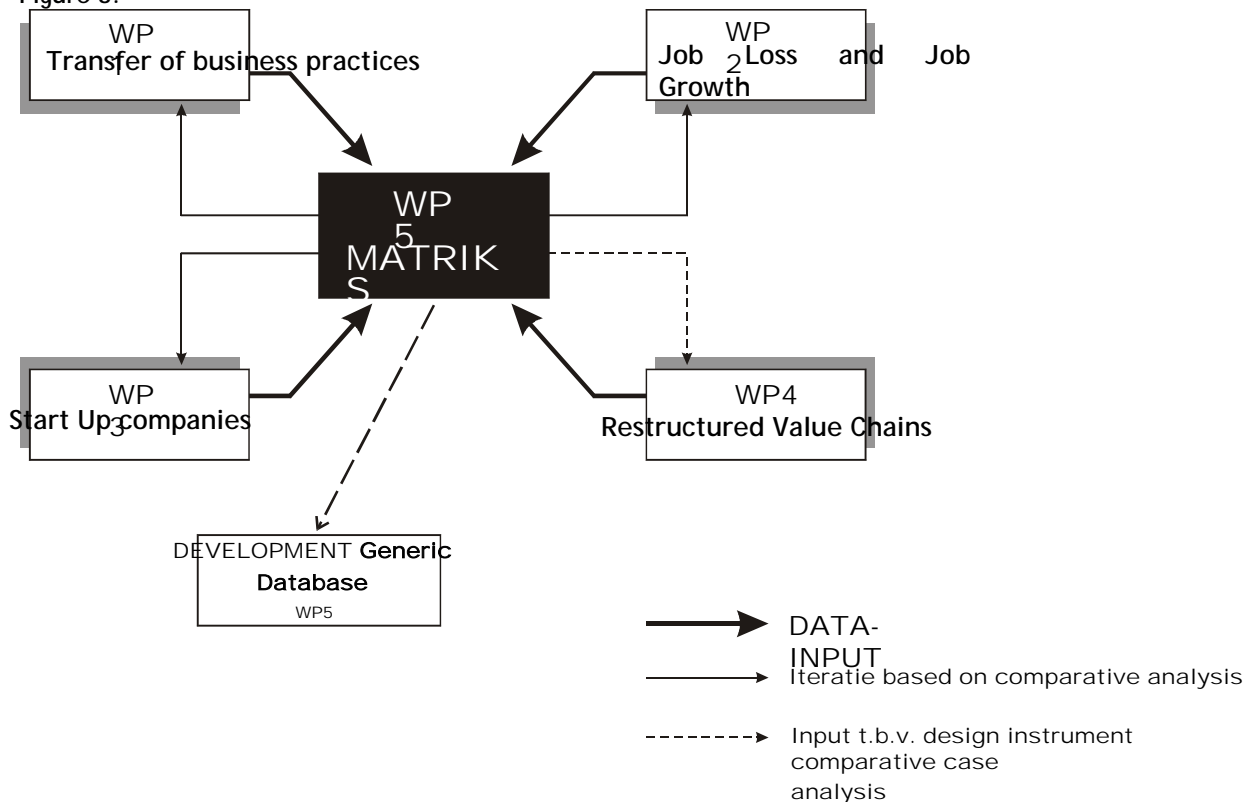
As a result, a systematic comparative case analysis allows for multiple conjunctural causation (Ragin, 1987). This implies that: (1) most often, it is a combination of conditions (independent variables) that eventually produces a phenomenon - the outcome, or dependent variable; (2) several different combinations of conditions may produce the same outcome; and (3) depending on the context, on the 'conjuncture' a given condition may very well have a different impact on the outcome. This implies that different causal paths - each path being relevant in a distinct way - may lead to the same outcome (De Meur & Rihoux, 2002). Thus one rejects any form of permanent causality (Ragin, 1987, p. 55) since causality is context- and conjuncture-sensitive. Systematic comparative case analysis recognises that a variable can have opposite effects depending on the context (relationship with other variables) in which it operates. This is the essence of configurational approach to analysis which recently received some attention in organisation studies (see Churchold, 2002; Winch & et al., 2000; Kogut, 2000; Romme, 1995).

This approach differs significantly, on the one hand, from a variable orientated-research strategy which often starts from the assumption that variables act 'on their own', i.e. that they affect each other independently. On the other hand, the approach also differs from a single case approach where one often assumes that cases are unique, i.e. case fallacy, and a causal explanation is so complex that it defies generalisation. Systematic comparative case analysis actually starts from this assumption, but then mounts an assault on it by comparing different 'unique' cases and analysing which similar factors combine within these cases to generate a certain outcome.

Hence, by using QCA, the researcher is urged not to 'specify a single causal model that fits the data best' (as one usually does with statistical techniques), but instead to 'determine the number and character of the different causal models that exist among comparable cases' (Ragin, 1987, p.167). Hence, in opposition to variable orientated research, QCA starts not from the assumption that social phenomena (outcomes) should be explained in a linear and additive way. Instead of generating only one statement (like for example regression models) about the relationship between independent and dependent variables (mono-causal explanation) it allows for the analysis of multiple causation. QCA essentially starts from the assumption that a certain social outcome can be the result of more than one causal pattern (combination of factors). In other words, one outcome can be determined by more than one configuration of causal patterns.

Finally, it is systematic in the sense that it uses a formal logic to compare cases, explore causal diversity and reduce the wealth of case information. The analytical procedure which facilitates this diversity-analysis is Boolean logic (both crisp as well as multi-value). Boolean analysis allows one to identify causal regularities that are parsimonious, i.e. the fewest possible conditions in a set of conditions that are considered in an analysis. The key-procedure in QCA is Boolean minimisation - that is, reducing a full case description to the shortest possible expression (the minimal equation) that shows the causal regularities in the data. It is then up to the researcher to interpret this minimal equation. In other words, Boolean algebra is used to reduce the complexity of data sets and make comparison between cases possible.

Figure 3.



As such, the comparative analysis that is executed in the database is the coherent link between the various empirical streams of this proposal. Specific to the approach that has been adopted, is the continuous feedback loops that are installed from MATRIKS to the other workpackages (see Figure 3).

However, the impact of this feedback differs for WP on Restructured Value Chains, on the one hand, and the other workpackages, on the other hand. For this WP, the input from MATRIKS is a one-shot injection in the conception of the survey instrument. The further operational development of the survey is of course an autonomous process, which will provide, in the final stage, important input into MATRIKS. In the interaction with the other workpackages, by contrast, opportunities for mutual bi-directional influence may exist. In addi-

tion to the input of the workpackages into MATRIKS, the QCA results of MATRIKS may serve as an input into the workpackages as well. This iterating process enhances the complementary nature of the various research activities, and will eventually lead to integrated and coherent research results. The development of this procedure is moreover quite similar to the principles of concurrent engineering as it is understood within the context of traditional R&D.

This approach also implies that what is being constructed in the course of the project, is in fact an open-end database. The applicability of this tool can easily be extended beyond the limited period of the project. More specifically, the development of this database frame can form the backbone for the establishment of a permanent observatory for monitoring dynamics in the Flemish economy. Not only would this allow to continuously detect in- and outflow movements in the economy, but also, and even more importantly, the database enables to evaluate the significance of these movements in terms of the sustainability of the Flemish economy and labour market.

Finally, the development of a digital toolkit is envisaged on the basis of MATRIKS. Such a toolkit enables a wide variety of stakeholders, regardless of their specific field of activity (public versus private - local versus central - labour market - economy or regional development) - to evaluate a possible relocation of a transaction-chain in terms of its impact for sustainable development within the Flemish economy.

Workpackage 5 summary sheet: MATRIKS

Start date: month 1

Objectives

The construction and qualitative comparative analysis (QCA) of an open-end generic database. This includes:

- cases: all transaction chains that have been documented in the course of the project;
- previously developed assessment instruments that allow to attribute specific codes to specific transaction-sequences in relation to, o.a.:
 - economic aspects;
 - social geographic aspects;
 - organisational aspects;
 - sustainable development aspects.

The attribution of codes is based on data analysis allowing the construction of typologies.

- feedback of the results of QCA to the workpackages;
- offering perspectives of continuation of the open-ended database after the finalisation of the project;
- the development of a digital toolkit at the disposal of stakeholders that have a need to evaluate the threats and opportunities of relocalisation processes.

Description of work

1. The development of audit instruments

- Assessment of changes in transaction sequences in accordance with a number of well-targeted criteria. The criteria for the evaluation schemes will be set up in advance by the various partners, each employing its own disciplinary expertise. The assessment criteria on sustainable development will be developed in a multidisciplinary perspective. The separate assessment parts in the audit will be combined with closed coding. The following assessment parts will be developed:
 - economic;
 - social and geographic;
 - organisational;
 - environment;
 - sustainable development.

2. Constructing the database

- Developing a database structure.
- The training of researchers in the structure of the database, in order to align the modelling of data from the workpackages, in accordance with the requirements for data-input into the MATRIKS-format.
- Input of data on movements in transaction chains, including descriptive information on these movements.
- The assessment of transaction-chain movements, by making use of the audit-instruments. The implementation of these audit-instruments into the database.

3. Comparative case analysis

- As soon as a considerable number of transaction-chain movements are implemented in the database, QCA will be executed.
- In function of the partial results of this analysis, iteration reports will guide the design details of WP1, WP2 and WP3. These reports detect whether or not specific readjustments of the design are required. These adjustments could relate to either sampling or data gathering, or both.
- To deliver input, in function of the partial results of QCA, into the development of the survey-instrument in WP4.

4. Report and the provision of the database

- Dissemination of the research results into the scientific community, via the appropriate channels for scientific communication.
- Dissemination of the research results to the stakeholders, in the most appropriate format.
- Development of an integrated plan that foresees the valorisation of the results and the design of dedicated products based on the results.
- The development of a users' manual for the continued management and control of the open-end database.
- Putting the open-end database at the disposal of relevant stakeholders.

5. Development of the generic database

- The research results will serve as an input for the development of a prototypical generic database. Such a database enables stakeholders to assess the impact of possible relocations.

Milestones

- M5.1: Partial and integrated auditing-instrument + training of researchers: month 3
- M5.2: Data input + first QCA + iterative report 1 + input WP4: month 14
- M5.3: Data input + second QCA + iterative report 2: month 26
- M5.4: Final QCA + scientific report + policy report: month 42
- M5.5: Development of the Digital Toolkit: month 48

Deliverables

- D5.1: Integrated audit instrument based on the several disciplinary auditing instruments and the multidisciplinary report on sustainable development: month 3
- D5.2: Iterative reports at the advantage of the workpackages: month 14 and 26
- D5.3: Scientific final report: month 45
- D5.4: Customised reports for various groups of stakeholders: month 48
- D5.5: Users' manual for the management and control of the database: month 48
- D5.6: Open-end generic database: month 48

6.6 Workpackage 6: Co-ordination and project management

6.6.1 Co-ordination expertise and competencies

The general project promotor is prof. dr. Geert Van Hootegem, professor at the Section for Work and Organisation, Department of Sociology, Faculty of Social Sciences - Katholieke Universiteit Leuven, and one of the core promotors of the Policy Centre Entrepreneurship, Enterprises and Innovation (Steunpunt Ondernemerschap, Ondernemingen en Innovatie).

The project leadership will be in hands of Monique Ramioul, research manager of the Sector Work and Organisation at the Hoger Instituut voor de Arbeid (HIVA-K.U.Leuven; Higher Institute for Labour Studies), based as well at the Katholieke Universiteit Leuven (Belgium), and co-promotor of the Policy Centre Entrepreneurship, Enterprises and Innovation.

Both project managers, and their respective research units, have complementary institutional competencies and share a considerable collaboration history, as can be seen in the track records. In these shared projects, each was contributing to synergetic outcome based on complementary focuses and research traditions, typical to the institutional characteristics of their institutes. The other research partners are included in view of their complementary added value expertise to the project's objectives, and some have shared institutional links with the core partners as well.

Based on their involvement in several important European, National and Flemish research projects of all of the participants, the core partners have built up extensive experiences and practices related to large research projects and, as such, they are part of an established 'research area' on the topics addressed in the project, due to their involvement in several consecutive and interrelated projects and due to their involvement in other structural collaboration settings, more specifically within the Centre Entrepreneurship, Enterprises and Innovation (e.g. the PASO project). At the basis of their personal and institutional experience is, as can be read in the CV's of both partners (see administrative annexes), a.o. their involvement in the European research projects on the core issues organisational restructuring, globalisation and innovation. In particular, it can be referred to the following research projects: ORGLEARN, SOWING, Work Process Knowledge, EMERGENCE, STILE, PASO, INNO, Telework, MOOS, WORKS.

The experiences of the promotor and the project leader relate as well to the participation in and management of large research projects, as to the management of knowledge creation, of Intellectual Property Rights, management issues and valorisation activities. In the frame of these research activities, fair and workable management structures and consortium agreements have already been established and proved to be effective ways of managing these issues. These existing collaboration history and complementarity of competencies is not only a basic condition for synergetic outcome but also a corner stone in the establishment of trust, confidence and good working relationships amongst all involved.

The core partners for the project, Section for Work and Organisation (K.U.Leuven) and HIVA, have obviously specific institutional competencies and broad scientific expertise that are to provide a strong and well-developed basis for enhancing the knowledge on the issues of this project and for bringing it to a good end. These competencies can be clarified as follows.

Firstly, the Higher Institute for Labour studies is one of the largest interdisciplinary policy-oriented research institutes in Flanders, with a staff of more than 80 people, including not only research traditions necessary for

the main objectives of this project, but also providing relevant additional expertise and scientific knowledge, in particular with respect to Sustainable Development, Socio-economic Policy and Labour Market and Education Policy. This interdisciplinary structure of HIVA allows involving in the project at any time the necessary expertise from these adjacent but relevant research domains, in particular on the issues of sustainable development.

Secondly, at the core of the mission and research tradition of HIVA is its policy orientation, not only reflected in its institutional structure, but also in its long-term tradition of research projects and effective valorisation efforts towards a broad variety of stakeholders and policymakers. Effective dissemination strategies to broad or to targeted constituencies are obviously developed in almost every project. In addition, the sector Work and Organisation especially has developed a broad variety of elaborated practices in involving systematically possible users of project results, not only at the end of research project, but during milestone moments in order to include systematic in-process feedback and assessment. In this respect, it can be referred to three particularly relevant examples of such stakeholder- and user-involvement. First, the wide range of tailor-made projects that are developed with and for the trade unions, including the development of manuals, training material, etc. Secondly, the tradition of research-based consultancy. Last but not least, it can be referred to the STILE project (www.stile.be), co-ordinated by Monique Ramioul and co-promoted by prof. Geert Van Hootegem (Section Work and Organisation, K.U.Leuven; project promotor), that was aimed at innovating labour market monitoring instruments and was in particular targeting European and national statistics institutes and employment policymakers. In the frame of this project several adequate methods of involving systematically users and producers of statistics and indicators (e.g. in user groups and dedicated seminars), have not only been developed and implemented successfully, but have become the trademark of this successful project. As is obvious now, the research expertise of HIVA is not limited to the local, regional or national level; the institute, and in particular the Work and Organisation sector, has also come to occupy a key role in a number of leading consortia at European level, including taking up the role of co-ordination of a European project with 9 partners within the 5FP (IST programme). These experiences makes HIVA one of the top Flemish research institutes participating in the EU science programmes in the field of human sciences. All this implies a considerable expertise in managing and leading large-scale scientific research projects with several partners, of a long duration, and with high expectations with regards to as well the scientific level of the outcome, as with regards to adequate valorisation and dissemination strategies towards broad and targeted audiences. The section Work and Organisation, directed by Monique Ramioul, is the unit that is involved in this project. As described in the 'Background information', currently several large projects are carried out. The most relevant for this project under the direction of Monique Ramioul are the STILE project (co-ordinated by Monique Ramioul), the PASO project (see below) and the WORKS project (to kick-off in 2005, co-ordinated by Monique Ramioul).

The section 'Work and Organisation' of the department of Sociology (K.U.Leuven) is a highly qualified academic centre of knowledge. It consists of three professors and a research staff of 13 researchers. The focus of the research team is on major issues that are relevant for the main objectives of this project, this is organisational design and change, economic and industrial development, (quality of) work, and internal and external labour markets (organisation of work and division of labour).

Both fundamental as well as applied policy research is conducted on these issues. In relation to fundamental research, the expertise and scientific knowledge of the section emerges through research projects (several PhD-projects) on the further development of key-theoretical frameworks and methodological techniques. Special attention can be made on the focus on cross-sectional and panel survey research and the systematic comparative analysis of case studies (www.compass.org). Moreover, all members of the section are well-known experts in their field and as such they are often asked as external experts and consultants. In relation to applied policy research, the group is currently involved in several externally funded research projects on trends in organisational change, a panel survey of organisations in Flanders (www.paso.be), teamwork, quality of work and stress, the organisational structure of start up companies, innovation of products and production processes, integration of migrants on the labour market and the relationship between companies and new social movements. One of the workpackages of the STILE project (as mentioned above), co-promoted by Geert Van Hootegem, is also based on the expertise of the staff members of the section.

The section is strongly involved in and oriented on international networks that combine several universities and academic disciplines. Due to the institutional link with (amongst others) HIVA and STOOI, the section is often asked to embed their expertise in cross-national research. Based on their numerous relevant experiences, the professors of the section often take the initiative themselves to promote or co-ordinate research projects of this kind (see list of research projects).

All these arguments contribute to creating a high-committed group where trust and confidence are already well established, but also where innovation of knowledge with respect to the highest scientific standards will be guaranteed, based on efficient use of resources and combined with effective and adequate utility of the outcome.

6.6.2 Project management

The *promotor* of the project will be prof. dr. Geert Van Hootegem. The *project leader* will be Monique Ramioul - HIVA-K.U.LEUVEN, and she will be assisted by a secretary staff for the day-to-day administrative aspects of the project. To manage the project, three groups will be formed.

- The **project management** including the promotor and the project leader, assisted with secretarial staff. The project management is responsible for all major decisions, such as: contractual matters, planning, financial matters, major technical decisions, preparation of reporting. Further, the project management will be the co-ordinating agents and the essential contact with the outside world and they will be responsible for:
 - the organisation of project team meetings; administration, preparation of minutes;
 - follow-up and adaptation of the project planning;
 - organising, steering, checking and assuring of the reporting in time towards the IWT;
 - the overall monitoring of progress on all work;
 - the organisation of initiatives to stakeholders;
 - monitoring of the expenses and allocation of the budget;
 - co-ordinate the payments to the partners;
 - provide assistance towards the participants concerning: the rules of the project.
- A **workpackage team** formed around individual workpackages. The workpackage team is responsible for the execution of the technical tasks as stated in the workpackage description, and is therefore the smallest scientific/technical entity within the project. The workpackage lead partner, the scientific responsible of the team, chairs workpackage meetings, called by whenever needed.
- A **project team**, including all scientific staff of the project. The project team will be called by the project management regularly, every three months, to inform and involve all about the progress of the work. The aim is to organise systematically feedback on the projects' progress in order to fine-tune and improve it, in order to provide the necessary links between the different workpackages and phases of the project, and in order to establish the necessary valorisation of the project's outcome to the targeted audience.

6.6.3 Information and communication structures

Full use will be made of telematic communications, including email for routine communication, a website on sharing information and supported by regular 'face to face' meetings with the team as described above.

An Intranet solution will be installed as a basic information platform with specific password oriented access rules. An overall summary bulletin board, documenting status of the project (results, deliverables), status of milestones, project's calendar (meetings, events, etc.) will be open for all participants in the project.

An electronic library will be offered, containing all documents relevant for the project (administrative, technical, scientific). The Intranet will offer an expert database for exchange of information and advise including a discussion forum for open questions, new ideas, etc.

The website of the project will also be developed as a communication platform towards the external world, notably the targeted users of the project outcome. This website will be developed in order to keep the possibilities open for including, for instance in follow-up projects or at later stages, user-friendly tools and instruments towards the targeted users. This website will therefore include:

- an open project website with description of the results during the project, including summaries and press releases of key results;
- scientific and technical publications generated by the partners and published in leading peer-review papers;
- announcements, programmes and proceedings of workshops and conferences organised by the partners.

6.6.4 Management of knowledge and of IPR

The project leader, HIVA-K.U.Leuven, has also been a partner in the RESPECT project - Professional and Ethical codes for Technology-related Socio-economic Research - funded by the Commission under the 5th Framework programme to draw up ethical and professional guidelines for socio-economic research (www.respectproject.org). This has created a high awareness of ethical issues concerning Intellectually Property Rights and scientific quality standards. Further, in relation to participating in several (large) consortia, considerable experience has been built up with consortium agreements. For instance a basic consortium agreement was elaborated in the STILE project and further fine-tuned in the RESPECT project. This fine-tuning included a in-depth review by lawyers that are also involved as partners in the management of the IPR helpdesk of the 5FP. This consortium agreement will serve as the basis for the elaboration and fine-tuning of the

projects' own collaboration practices in line with the work to be carried out. It will do so by describing the obligations, duties, rights and responsibilities of all partners involved.

6.6.5 Outcome reliability

The expertise of the consortium and the broad network of funding institutions, as explained in the *Track Records* section, could only be reached thanks to a persistent and combined result of effectiveness, efficiency and research innovations in these previous projects. The track record of the group would not have been possible without these efforts and concern. In European projects, high performance in all its dimensions is constantly *monitored and assessed*: in process, on site, in panel reviews, etc. The monitoring of progress and achievements, the fine-tuning of objectives and the efforts for scientific and policy dissemination require permanent attention and efforts that - until now - have always been reached successfully.

In view of this proposal, the consortium plans implementing *at the start* of the project an effective *accompanying structure* to reinforce a systematic in process peer review and assessment, including:

1. The development of an *assessment instrument* to monitor the progress in view of a continuous improvement. The core evaluation criteria for this include:
 - *effectiveness*: to what extent are the project objectives met? To what extent are the different research activities and output effective in meeting the objectives?
 - *relevance*: are the research activities, the project's outcome and the valorisation and dissemination activities (utility) still relevant in view of the Flemish economic, innovation and labour market policies?
2. To do so, a further *detailing of the outcome* of each workpackage in terms of reports, articles, popular press, conferences, and presentations will be elaborated at the start of the project. This outcome will be object of an agreement between the accompanying structure (see 3.) and the consortium in view of optimising the dissemination and uptake.
3. This monitoring and assessment will be consigned to a *scientific board*, to be established in view of monitoring progress and achievements and in view of permanent 'in-process fine-tuning', to meet regularly (3 times a year). In the partners' national and international networks, several relevant and pertinent scientific experts can be approached to participate.
4. Finally, it is obvious that the project's outcome, dissemination and utility will also be assessed by the *multi-level advisory group* (see details below) that will be established at the start of the project and that will act as the reference group for systematic assessment, in particular with the aim of relevance and valorisation/implementation strategy development.

We are confident that these procedures will ensure that the project will be run efficiently and that the deadlines will be met.

7. Timing

Year 1 - 2006

WP	Name	Partner	jan.	feb.	mar.	apr.	may	jun.	jul.	aug.	sep.	oct.	nov.	dec.
WP1	Transfer	RUG				M1.1								
WP2	Jobs	Sociology				M2.1				D2.1	M2.2			M2.3 M2.4
		HIVA												
WP3	Startup	Sociology												
WP4	Value chain	HIVA												
WP5	Matriks	Sociology			M5.1 D5.1									
		HIVA												
		RUG												

Year 2 - 2007

WP	Name	Partner	jan.	feb.	mar.	apr.	may	jun.	jul.	aug.	sep.	oct.	nov.	dec.
WP1	Transfer	RUG	M1.2											
WP2	Jobs	Sociology							M2.5 D2.2		M2.6			D2.3 D2.4 D2.5
		HIVA												
WP3	Startup	Sociology				M3.1			M3.2					
WP4	Value chain	HIVA	M4.1	M4.2				M4.3		M4.4				
WP5	Matriks	Sociology	M5.2 D5.2											
		HIVA												
		RUG												

Year 3 - 2008

WP	Name	Partner	jan.	feb.	mar.	apr.	may	jun.	jul.	aug.	sep.	oct.	nov.	dec.
WP1	Transfer	RUG	M1.3	M1.4					D1.1					
WP2	Jobs	Sociology												
		HIVA												
WP3	Startup	Sociology	M3.3						M3.4				M3.5 D3.1	
WP4	Value chain	HIVA										M4.5	M4.6	D4.1
WP5	Matriks	Sociology	M5.3 D5.2											
		HIVA												
		RUG												

Year 4 - 2009

WP	Name	Partner	jan.	feb.	mar.	apr.	may	jun.	jul.	aug.	sep.	oct.	nov.	dec.
WP1	Transfer	RUG												
WP2	Jobs	Sociology												
		HIVA												
WP3	Startup	Sociology												
WP4	Value chain	HIVA												
WP5	Matriks	Sociology							M5.4	Integrated final report Development valorisation activities				M5.5 D5.4 D5.5 D5.6
		HIVA												
		RUG												

Utility and potential impact on society

1. Relevance and potential impact for employment, economic and innovation policies in view of sustainable development

1.1 Globalisation and economic restructuring, a major challenge for regional socio-economic development policies in Flanders

1.1.1 Strengths and weaknesses of Flanders in the knowledge economy

The globalisation and the related intensified restructuring of value chains and redistribution of labour have a major impact on regional and subregional economies and labour markets. Regional economic development is more than ever shaped in the interaction between the global and the local:

- The growing role of knowledge and the widespread application of ICT in a globalised economy imply that the location of knowledge intensive activities in globalised value chains is a crucial factor for the innovation potential of regions and subregions (Millard, 2002).
- The combination of geographical concentration and decentralisation of economic activities in general and of knowledge-intensive activities in particular, play an important role in the outcome of this restructuring.
- This global restructuring implies a more complex regional economic "tissue": it is a 'networked' economy.
- Sets of comparative advantages at the level of regions and subregions play a more prominent role: not only labour costs, but also skills and qualification structure on the labour market, VET structures and institutions, labour market regulation (flexibility), infrastructure (not only for transport but also telecommunication infrastructure for instance), standards of living, state regulation, entrepreneurship, innovation etc. This means that the structure of (sub)regional labour markets is at the same time at the origin and the effect of processes of the interaction between the global and the local.
- These evolutions imply an increased need to better understand the strengths and weaknesses, threats and opportunities of regions that originate from the regional economic tissue.

What is the position of the Flemish Region in this globalised economy? What are the strengths and weaknesses? A recent study of Sleuwaegen en De Backer (2003) concludes on the following:

- The historical specialisation in traditional industries imply that economic growth in Flanders is mainly based on productivity increase and the substitution of labour by capital based on massive rationalisation investments (De Backer & Sleuwaegen, 2003, p.8). In these industrial branches there is a underrepresentation of activities that grow fast globally and that are at the core of the knowledge economy (s.a. telecom and ICT).
- The strategy of productivity increase based on price and cost competitiveness has its limitations in the long term. In an open economy as Flanders with an important presence of foreign owned enterprises, this implies a particular vulnerability for the increased mobility of capital and for the intensified global (re)location of activities.
- Flanders role in the knowledge economy is too much based on knowledge related to production processes (hence the high productivity rates) and product strategies based on cost reduction instead of innovation, which implies an increased risk of relocation of investment and technologies, because of the mobility of such knowledge (ibidem, p.24). This conclusion is confirmed in the latest analysis of the National Bank of Belgium, just press-released at the date of this proposal submission.

Longitudinal analyses of the Flemish labour market structure, such as published yearly by Steunpunt Werkgelegenheid, Arbeid en Vorming, confirm the fast decline of industrial employment in Flanders. The latest analysis show the economic activities with an employment growth are exclusively service jobs (Herremans, 2003, p.81). Moreover, this employment growth is more than proportionate related to public services (with a structural lower productivity growth), while employment growth in market-oriented services tend to lag behind (De Backer & Sleuwaegen, 2003, p.34).

While the growing interconnectedness within economic value chains imply a strong relationship between market oriented services and industry, the economic prospects for a region such as Flanders highly depend on the productivity growth in these market-oriented services. In these economic activities, productivity increase

highly relates to the intensive use of ICT on the one hand and on the liberalisation of trade in services on the other hand (De Backer & Sleuwaegen, 2003, p.34). The authors conclude that such productivity increases in these service activities is currently lagging behind, which is less caused by the absence of the required resources in our region but rather by an ineffective employment of these resources in view of innovative policies. In other words, the potential to innovate in a globalised knowledge economy is currently unused. (De Backer & Sleuwaegen, 2003, p.16). The quality of infrastructure, the structure and quality of available labour market resources, the advantages in term of geographical location etc. are not the major problem. However, in regional economies, embedded in a global networked economy, it is not only the traditional production factors (capital, labour, natural resources) that matter but increasingly factors referring to entrepreneurship, innovation and the ability to act in a globalised economy. With respect to these decisive factors, and especially the first two, Flanders needs to intensify efforts (De Backer & Sleuwaegen, 2003, p.17). Innovation-related activities are underdeveloped, often created in foreign-owned enterprises and too less focused on market-related applications. (De Backer & Sleuwaegen, 2003, p.17).

These conclusions on the current weaknesses of the Flemish innovation potential, creation of new enterprises and the 'underdeveloped' market orientation of innovative services, are crucial when it comes to assessing the possible impact of future globalisation for the Flemish economy. It is the aim of this project to contribute to a better insight into the drivers and processes at the level of enterprises and economic value chains in view of strengthening the regional socio-economic policies in this respect.

1.1.2 The growing policy concern for offshoring

The performance of regional economies with respect to market-oriented services is all the more relevant because the global relocation of business activities and of services is in particularly connected to internationalisation. The relocation of business services - currently often too narrowly interpreted as 'offshore outsourcing of business services' - is becoming a major concern for European (and American) policymakers. Even though relocation of jobs is not a new phenomenon, it is obvious that the intensified mobility of capital and the move of even knowledge intensive jobs to low(er) wage regions in Eastern Europe and the Far East seriously worry both governments and socio-economic actors. This concern is important and relevant to the extent that it impacts on decision-making processes and on the behaviour of both the stakeholders of the industrial relations system and socio-economic actors in Europe (we can refer to the background and impact of the collective agreement increasing working time of Siemens in Germany as just one example) and the political strategies and discourses (see for instance the Lisbon Agenda at the European Level).

The debates in the US and in European countries have recently led to an inflation of policy documents and studies focusing on the one hand on estimations and forecasts of job moves in the forthcoming decades (with as the most famous examples the reports of Forrester and Gartner¹) and on the other hand aiming for policy guidelines and strategies at different levels. In the latter, the focus is often on a better insight of advantages and disadvantages of job relocation, motives of management, 'best practice examples and cases, estimations of the impact on the labour market of specific 'vulnerable' activities and occupations, etc. Relevant recent examples are: European Monitoring Centre on Change (2004), Central Planning Bureau The Netherlands (2005), OECD (2004).

Generally, these policy studies also sketch a nuanced picture, including the importance of 'insourcing' of activities in European regions (OECD, 2004, p.9). In these recent policy documents, there is further attention to the advantages and opportunities that the intensified globalisation may offer for the 'source' regions (in Europe). Generally speaking, these advantages refer to the opportunities to focus the economic activities on core comparative advantages (whilst outsourcing other activities), to increased competitiveness through productivity gains, to more efficient organisation of firms because of risk spreading, etc. All these potential benefits are assumed to absorb possible jobloss related to global relocation of business activities. Increasingly, a new 'attitude' towards relocation implies a renouncement of protectionist responses in favour of: "A more measured response (would be) to take advantage of the benefits while managing the adjustment process, compensating for adjustment costs where necessary and enabling workers to seize new job opportunities" (OECD, 2004, p.2). It is precisely these adjustment processes that this project is focusing on its research activities.

¹ Widely cited figures from Forrester Research suggest that by 2015 around 3.3 million US business processing jobs will have moved offshore, accounting for USD 136 billion in wages (McCarthy, 2002). Gartner recently predicted a 40% growth in the European offshore outsourcing market, and Ovum Holway forecasted that by 2006 some 20 000-25 000 IT jobs would be lost offshore from the United Kingdom (Moran, 2003).

The emergence of pro-active policies towards offshore outsourcing can be illustrated by the UNI-charter. UNI is the international Trade Union of white-collar workers that actively wants to contribute to making offshore outsourcing economic and socially sustainable. In their recent charter, they state:

"(...) What UNI observes today is the globalisation of work organisation in the services sector at an unprecedented scale and speed with an increase in offshore outsourcing of service jobs to all continents with the globalisation of services provision. More people in UNI sectors throughout the world are being exposed to the realities of globalisation. UNI is adamant that this process must not become a race to the bottom, as regardless of where we are in the world, this is not in the best interests of workers, consumers, national economies or sustainable development. UNI believes that the human dimension is missing in the discussions on this issue. The lack of sufficient economic growth to reduce unemployment and offset the effects of offshore outsourcing is a key problem in developed countries. There must be public policy debate to ensure that there is consideration and solutions found for the disproportionate effect that will be felt in those regions which having borne the brunt of the massive job losses in traditional industries then saw the growth of the call centre and service industries. This requires active labour market policies and public investments in education and training. UNI believes that it would be ill placed to respond to employer initiatives to relocate work overseas with arguments that could be misconstrued as racist, xenophobic or protectionist. We want decent work for all. Our aim is to ensure job security for our members and ensure compliance with decent labour standards through agreements between the employers, the national unions, and UNI at the appropriate levels wherever the work is undertaken. UNI believes that the only way to ensure that there is compliance with decent labour standards is for companies and UNI to establish Global Framework Agreements. These Global Framework Agreements should include clauses on workers rights, union rights, health & safety, elimination of discrimination, minimum wages and working conditions, employment stability, respect for others at work and respect for the environment. Our aim is also to ensure quality services for customers and quality jobs for workers. This can only be achieved if regardless of where the work is carried out, there are standards for customer service and back office work." (UNI Charter, see www.moosproject.be)

The Dutch Central Planning Office (Centraal Planbureau) recently published a document on relocation of work, highlighting especially the advantages this 'globalisation' offers for the Dutch economy and labour market. In general, this report focuses on the importance for government policies to facilitate international trade in general, to innovate economic activities and knowledge infrastructure as part of 'generic' socio-economic policies, and to focus on sectoral restructuring in view of globalised markets, rather than focusing too unilaterally on the possible job loss related to relocation of business functions (CPB, 2005, p.48 e.v.)

The growing pro-active instead of defensive attitude towards globalisation and relocation can be inspiring and stimulating for Flanders. It is the aim of this project to contribute to the development of such pro-active strategies at the level of different socio-economic stakeholders and at the level of (sub) regional policy makers.

1.2 Organisational renewal and regional innovation

Two - closely interrelated - policy domains are particularly and explicitly pointed at for their contribution to pro-active regional and/or sectoral management of economic globalisation:

1. the crucial importance of organisational renewal and innovative work place design,
2. the importance of strategic innovation policies both at the level of organisations and at the level of (sub)regions.

1.2.1 Organisational renewal as a strategic response to value chain restructuring

Obviously, organisational renewal and innovative workplace design are an essential and strategic element in the adjustment processes that firms need to develop in response to globalisation.

To cite the recent OECD report: "In a context of globalisation, market deregulation and rapid technological developments, firms increasingly resort to new organisational forms in order to face competitive pressures." (OECD, 2004, p.2). As another example, in a recent report for the European Monitoring Centre on Change on Offshore Outsourcing in ICT and related Services in the EU, Huws et al. state that "the impact on employment in the EU may well be not so much a quantitative one, in terms of absolute decline in the numbers of jobs, but a qualitative one. On the one hand, the jobs that remain are more likely to demand relatively high skill levels, creating a risk of exclusion for those who lack such skills; on the other, the character of many previously secure jobs may become more contingent and precarious in the face of the possibility of relocation, even if this is not actually realised." (Huws, 2004, p. 14).

As concluded in the state of the art section in this proposal, an increase in the number of organisations externalising specific business functions, may on the one hand, lead to negative employment effects in terms of job loss, and to negative effects in terms of job quality as well, if this is evolution accompanied by task impoverishment in the work organisation. On the other hand, organisational restructuring may well take the form of - selective - internalisation of activities in integrated organisational units. In the latter case, job content and skill requirements of the workforce, may benefit. Finally, the stretching of supply-chain sequences across geographic and organisational units, may take shape in the formation of innovative and highly flexible organisational units, functioning as responsive knowledge-based nodes in the value chain.

One important dimension of the utility of this research project is the question to what extent the re- and decomposition of value chains include opportunities for new forms of work organisations that empower the workforce, sustain the competitiveness of companies and maximises their innovation capacities. It is widely acknowledged that new forms of work organisation significantly help to improve the performance of companies. It is also increasingly accepted that such new systems, often called the 'high road to competitiveness', provide employees with greater employment security, enhanced job satisfaction, considerable learning opportunities, reduced stress and health risks, while incorporating extensive levels of employee involvement in decision making. The combined effects of employment security - while not reducing labour market mobility and flexibility - competence development - including learning effects of active direct and indirect participation - and the conserved physical and psychological abilities to perform during a life long career, can be synthesised under the general concept of *employability*. It is well-grounded and legitimate to define these both dimensions, the dimension of improved economic performance of companies and the dimension of enhanced employability of citizens, as two central pillars of the *sustainable development of a regional economy and labour market*.

These issues have also become of key importance in the context of the European Employment Strategy, that is, as the general policy framework, relevant for the Flemish (and Belgian) policies. Next to this, organisational innovation has become an equally important dimension of the European innovation policies. In various *green papers and communications* the European Commission and the member states expressed the view that developing the *productivity and competitiveness* of enterprises and at the same time improving the quality of work is one of the fundamental aims of the European Employment Strategy (EES).^{2,3,4,5} The way in which work is organised, as an aspect of the *adaptability pillar*, is an important aspect of this. In this regard, the European Commission has implemented innovative measures under Article 6 of the European Social Fund (ESF): a.o. 'innovative approaches to the modernisation of work'. This policy goal of 'adaptability' has equally become a dimension in the Flemish economic and labour market-related policies. This is reflected in the importance of this pillar in regional funding mechanisms (such as ESF) and employment policies as a consequence of the method of open co-ordination. The goals set, co-ordinated and monitored at the European level in the European Employment strategies, with respect to the functioning of the labour market, the economic and employment policies and the related innovation policies, are not only relevant for the Flemish region, but they are actually the main guide and benchmark for the regional policy development.

However, one crucial aspect in all this is a '*narrow*' approach to new forms of work organisations. Strikingly the definition of 'work organisation' typically explicitly refers to changes 'within enterprises'. It is however questionable whether in an increasingly networked knowledge economy the organisation as such is still the appropriate level to instigate changes in work organisation. The real actors in the knowledge-based economy are increasingly *networks of companies* and not so much individual companies any more. The focus of programmatic development on work organisation should shift, accordingly, from the level of individual workstations or working units to cover company- and network-level issues as well. Policymakers and social partners in many European countries and regions have yet to recognise work organisation as a significant factor in the achievement of major economic and social goals. Despite the publication of the Partnership for a New Organisation of Work Green Paper as far back as 1997 there is a significant policy development task ahead if Europe and its regions are to realise the full potential offered by new forms of work organisation.

One of the main innovative and utility aspects of the proposal is precisely the fact that it locates work organisation and its analysis within (global) 'value chains' and networked organisations. Hence the project has the capacity to reorient the debate and lay the ground for an adaptation of policies to developments such as the recomposition of global value chains.

² European Commission Green Paper 'Partnership for a new organisation of work', 1997.

³ European Commission Communication 'Modernising the organisation of work', 1998.

⁴ European Commission Communication 'COM (2000) 894 Brussels 12.01.2001'.

⁵ European Commission, The Green Paper on the Information Society (COM 96, 389).

More attention to work organisation is needed if policymakers and social partners are to exercise real leadership in addressing the potential offered by new forms of work organisation that emerge as the result of re-structured value chains. Given the growing knowledge intensity of the economy, globalisation of competition and the new possibilities opened up by advanced ICT, there is the danger that a growing number of workplaces are not sufficiently prepared to the challenges of the knowledge-based economy and, consequently, will be stuck into traditional markets with no reasonable growth prospects and doomed as laggards in the global innovation competition.

1.2.2 Organisational renewal and innovation policies

The link between new forms of work organisation and innovation policies, was also clearly established in several Green papers, of which the most important are *The Green Paper on the Information Society (COM 96, 389)* that indicates that the very flexibility of new technologies can be realised only if they are appropriately embedded in the social organisation of the work processes. Under paragraph 3.3, 'The first challenge: to build knowledge and raise awareness of new forms of work organisation' the paper states:

'The most important obstacle to this development is the lack of awareness of the new forms of work organisation and the potential of flexible organisation. Managers may also be rightly cautious about innovations which alter systems and procedures currently delivering an acceptable level of performance, compared to entering an unknown realm in which there is uncertainty about how to complete the process of change and how long it will take. There are no 'turn-key' solutions. The very flexibility of the technologies means that they must be embedded in the social organisation of the workplace in order to achieve a competitive combination of productivity, performance and quality. The key question therefore is how to increase awareness of the potential of new approaches to organisation of work.'

Next, the Green Paper on Innovation (COM (95) 688) identifies Europe's weaknesses in combining technological and organisational innovation. In its introductory chapter the Green paper defines innovation also as 'the introduction of changes in management, work organisation, and the working conditions and skills of the workforce'. It also draws attention to changes in work organisation as a precondition for successful technological innovation. '*Innovation in work organisation and the exploitation of human resources, together with the capacity to anticipate techniques and trends in demand and the market, are frequently necessary preconditions for the success of the other forms of innovation.*'

The analysis by Lundvall (1992) and others of *national innovation systems* provides a more strategic approach to the question of organisational innovation, which is highly relevant for this project. Critically, workplace innovation should be seen as the product of a *complex process of learning grounded in, for example, vertical and horizontal interaction within firms, networking between firms (industry associations, supply chain relationships, etc.), public policy, vocational training, industrial relations, the financial system, and so on. Learning and innovation are therefore very localised, and not placeless processes.*

This approach has recently been confirmed in the discussions on policy co-ordination of innovation policies in the '*learning economies*' and European science and technology basis (Lundvall, 2004). In the frame of this debate, there is a strong plea to co-ordinate and combine two different models of innovation that co-exist and co-evolve. The first mode of innovation is the traditional science and technology mode, dominated by systematic research for solutions of reasonably well-defined problems. This innovation mode is aiming at codification in view of facilitating communication and dissemination of explicit knowledge. The second mode of innovation is called the Doing, Using and Interacting mode, routed in everyday routines. This mode is rather opportunistic than systematic, but the outcome of the process includes competence building and know-how shared within teams and networks. This innovation mode is one where local and implicit codes predominate because trust, unspoken rules, dialectical concepts and discursive rationality are essential. In this case, communication of implicit knowledge tends to remain local.

It is clear that in globalising economies, such as Flanders, more comprehensive insights into the importance and co-existence of both types of innovation and 'learning', competing in all the market-oriented activities of the learning economy, are crucial for the development of effective and co-ordinated innovation policies. Recognising the co-existence of the two modes may represent, according to Lundvall, major progress in innovation theory and policies, including in 'adjacent' policy domains such as employment and education policies. At the level of the - globalising - enterprises, it is becoming more and more crucial to combine these two modes of innovation. In view of the development of transaction strategies within global value chains, the core issue to address in this project, it is clear that *organisational innovation and restructuring strongly determines the structural conditions that facilitate or hinder these two models of innovation.* The concept of the *learning organisation* is, in this respect, at the core of these structural changes. Based on several research projects on new forms of work organisations, it becomes clear that firms, that combine a number of organisational charac-

teristics normally associated with 'learning organisations' have an obvious predominance of the second, implicit-knowledge oriented mode of innovation.

Because of this current lack in employment and innovation policy, stakeholders are hampered when developing effective anticipative strategies to manage organisational restructuring and innovation and to manage the societal effects of globalisation in view of sustainable development and competitiveness. With respect to the project objectives, it is therefore important to discover and to strengthen the characteristics of *effective and dynamic innovation systems at regional, national and European levels* - for example the types of bridge that can be built between academic research, social partners, business support organisations and the individual firm. At the *regional level*, learning networks also influence innovation: companies and organisations do not develop in isolation but through collaboration with other companies and organisations. This *regional clustering* implies a strong, complex and dynamic set of horizontal and vertical interrelationships between companies within one region, including changing outsourcing relationships, the emergence of spin-offs, mergers and acquisitions, etc. This may also imply a joint collaboration in innovation projects and knowledge management, the sharing of research centres, infrastructures and qualified personnel and a shared 'identity' based on the regional proximity.

Participation in learning networks makes the immediate environment larger and richer with all the benefits that this accrues in the form of reduced uncertainty and new stimuli. Moreover the networking process has an inherently proactive capacity to create new opportunities, and not simply to react to changed environmental demands (European Work & Technology Consortium, 1998).

Public policy must promote a wide range of opportunities for collective learning about the design and implementation of new approaches to work organisation, building broad communities of expertise at local and sectoral levels and creating new technical resources to support change. Such intervention pursues innovation. The 'high road' is defined as one in which organisational structures reflect both creativity within the workforce and interaction with external knowledge and experience.

1.2.3 Regional diffusion and embeddedness: combining organisational innovation with regional innovation

As in any other domain of innovation, *diffusion* is to a large extent dependent upon the infrastructure available to manage and to distribute knowledge. This is taken as self evident in the field of technology, where essential components of the infrastructure include:

- close co-operation between technology suppliers, users and knowledge centres in both the public and private sectors;
- intermediary organisations which help to customise general technological knowledge to meet specific needs;
- expert centres which integrate local and general knowledge within education and training initiatives.

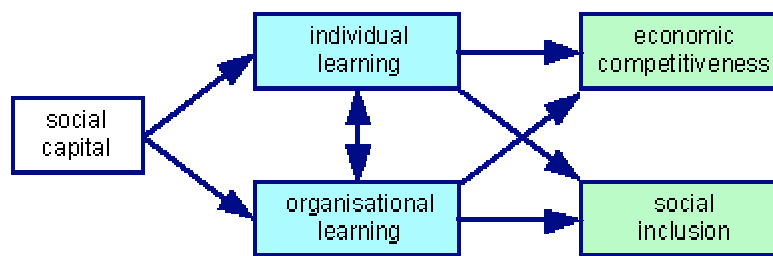
Organisational innovation is directly comparable to that of technological diffusion in this respect. Experiences from the Scandinavian countries (Gustavsen, 1996) show that an innovative society needs specialised support structures, or 'development organisations' to create the conditions for broad scale change. Such structures represent a coalition of interests and resources with shared values, capable of generating new synergies and momentum, and of giving a strategic direction to change. Critically however, such organisations are not conventional technology transfer agencies seeking to disseminate or apply a defined approach. Rather the emphasis must always be on *creating contexts* (both internal to the company and within its wider environment) able to animate and sustain innovation. *In creating new capacity, essential targets for public policy include:*

- building new bridges between *research institutes and practitioners* to ensure both a strong knowledge base for organisational change and the incorporation of concrete experience within research programmes;
- creating new *centres of excellence* at regional or sectoral levels with a commitment to the active resourcing of innovation in the workplace;
- mainstreaming *work organisation within the activities of business support centres, technology transfer agencies and social partner bodies*, many of whom have insufficient appreciation of its impact on competitiveness and little access to appropriate knowledge or expertise.

This approach is elaborated by the OECD that introduced the concept of the '*learning region as a framework for analysing key relationships and developing effective strategies for regional policy*'. At base, economic competitiveness at the regional level is determined by the quality of social capital, defined as the institutions, relationships, and social norms impinging upon the quality and quantity of social interactions within a society. In a broad sense it includes the social and political framework that shapes both these norms but also the relevant social structures. Social capital, in turn, moulds the types of learning, the use of knowledge and the abil-

ity to innovate (i.e. create new knowledge) resulting in economic competitiveness, but also in social inclusion if long term sustainability is to be ensured.⁶ The following diagram summarises the OECD approach.⁷

The learning region model:



Two categories of learning are recognised as important in this process: individual and organisational. Each has specific characteristics for disseminating existing knowledge and creating new knowledge, but the types of interaction between the two are also important. The necessary interaction between individuals and organisations, leading to the ability to innovate and become competitive is much more likely to occur in regions with high physical densities of skills and specialised firms.

Regional competitiveness increasingly depends on knowledge and innovation, and the importance of territorial complexes of 'milieus of innovation' is at the heart of the ability of (sub)regions to become the sources of wealth in the knowledge economy.

1.3 Contribution of the project

A strong strategic impact of the project in terms of reinforcing competitiveness, solving societal problems and underpinning innovation, economic and employment policies can be expected. In particular, policy relevance and utility dimensions can be found in the relationship between globalisation, regional development, new forms of work organisation, productivity, innovation and employment. The strategic relevance and added value of this research project is to be found in a systematic and multi-dimensional scientific approach to better assess the possible impact of organisational restructuring of value chains on employment, the role of institutional regulation and the interaction with the labour market. In the research design, both methodologically and theoretically, the dimensions legitimately assumed to be of major importance in view of a strategic policy response at the regional level, are included:

- The research design enables to monitor the international - or transnational - development of value chain restructuring as this occurs in the Flemish Region. In-depth knowledge of organisational strategies in the face of global economic development and business start ups is based on context-rich methods of data gathering (case studies) to understand the complexity of the interaction of intra- and inter-organisational variables with institutional variation.
- Second, the research methods aim at assessing the economy-wide importance and significance of the value chain restructuring by setting up a representative survey, which allows for the inter-sectoral comparison of organisational strategies and specific generically defined business functions.
- Thirdly, statistical analysis complemented with focused data collection will map the dynamics in the employment structure, related to different mechanisms of job growth and job loss. This includes the investigation of changing qualification structures on the labour market.
- The research design includes as major dimensions company strategies on the one hand and the role of the institutional regulatory context in relation to sustainable socio-economic policies on the other hand.

The outcomes of these different research activities are not only relevant and valuable as such, they are especially aimed to be the constitutive elements of the final outcome of this project, which is a generic database and methodology, combining both institutional and organisational variables.

The final output, the generic database, is as such the combination of different original (work package-derived) data sources in a logic structure. The units of analysis of the database are *transaction chains*, composed of the different business functions of several value chains. In order to construct this database and to add the necessary information, the four different work packages capture simultaneously *cross-sectional analyses* of the Flemish economy, and *processes of entry and exit*. This way the database encompasses the key elements of the Flemish economic structure.

⁶ For more information see also: www.emergence.nu/toolkit.

⁷ OECD (2001), *Cities and Regions in the New Learning Economy*, OECD, Paris.

This generic database allows to provide a broad basis for a wide variety of applications and valorisation in specific follow-up activities beyond the project, as will be explained in the valorisation plan. These valorisation opportunities include different dimensions:

- the regional and subregional dimension;
- the core policy dimensions of globalisation: socio-economic, labour market and innovation-related dimensions;
- the sectoral dimension: obviously, different business sectors will act different in view of internationalisation strategies, not the least because the scale of the production organisation differs and the economies of scale widely differ between business sectors which implies different strategies at the level of value chains (for instance automotive versus textile), as do the market orientations.

2. Utility and valorisation potential and plan of the project

2.1 Utility and valorisation potential: A broad target audience

Based on the above described analyses and conclusions, it has become clear that the project outcome is effectively addressing a very broad spectrum of Flemish policy domains and a wide variety of stakeholders related to economic development, employment and labour market policies and innovation strategies in Flanders and its subregions. These stakeholders and domains include in particular:

- public policy bodies at the regional level and Flemish Ministries qualified for work and employment, innovation, economy and education;
- the social partners, the industrial relation system, and the tripartite consultative bodies and institutions, at the sectoral, regional and, in particular, the subregional level on the domains of employment and the labour market, economic development and innovation;
- the role of these institutions in the management of socio-economic impact of globalisation and the opportunities this offers for the diffusion of innovative organisational practices and of sustainable work related policies and practices;
- the broad domain of institutions and policies aiming at qualification acquirement, skills and competence development in and outside work, including in particular: vocational training and life long learning policies and infrastructure at different levels and in different institutional contexts;
- labour market strategies and research and education policy focusing on mobility between the educational system, e.g. universities, and industry, interaction between knowledge institutions and businesses, aiming at experience-based learning during the working life and in enterprises;
- aspects of labour market regulation, such as flexibility;
- innovation policies at the supply side (e.g. science parks, etc.) including public-private partnerships of innovation.

At the level of the Flemish region, and its subregions, a well-developed 'tissue' of such policy bodies relevant to the issues of this project, is already established and in constant dynamic growth, in parallel with the growing importance of Flanders as a major policy and regulation level within Belgium.

We refer in this respect as well to stakeholders, policymakers, institutions and organisations :

- at the regional level, especially the Sociaal-Economische Raad Vlaanderen (Socio-economic Council of Flanders- public government);
- at the subregional level: in particular Gewestelijke Ontwikkelingsmaatschappijen (Regional Development Agencies - public government), RESOC (Regional Socio-economic Councils), subregional tripartite consultative bodies which integrate the former Regional Development Platforms , competent for economic development and the Subregional Labour Market Committees competent for labour market developments), Education fora, etc.;
- at the sectoral level, in particular the sectoral funds, managed by the social partners of a sector and the respective sectoral employer and union organisations.

The economic and social bodies are currently undergoing a fundamental re-orientation and reforms in the frame of the general objective of the Flemish Government, called 'Better Governmental Policy' (Beter Bestuurlijk Beleid). This reform is focusing in particular on the socio-economic regional policy. A main characteristic underpinning this reform, which is extremely relevant for this project, is the systematic integration of the economic and social policy domain at the different levels. This is in particular affecting all consultative tripartite bodies at the subregional level. In particular, the integration of Regional Development Platforms and

Subregional Labour Market Committees offers important opportunities to develop new and innovative policies, addressing in synergy economic and social objectives.

Both tripartite policy 'pillars', the economic and the social, have developed during the last decades their own networks, competences and best practices with respect to the subregional policies. The Regional Development Platforms, traditionally organised at a broader regional level, have mainly developed policies with respect to economic development such as the availability of business sites and their 'opening up' and accessibility, mobility and public transport, etc. The Subregional Labour Market Committees, on the other hand, have actively developed a broad range of policies and best practices strategies aiming at as well the demand-side as the supply-side of the labour market: active labour market participation, fight against unemployment, diversity management practices, subregional oriented vocational training initiatives, etc. The last decade, they have enlarged their scope and activities to a considerable extent as a consequence of the growing importance and elaboration of Flemish Labour market and employment policies. In this respect, these committees now include also the elaboration, stimulation and diffusion of specific best practices that can be related to the 'learning organisation', notably in view of the inclusion of groups at risk in companies, for instance initiatives to promote job rotation, on-the-job training, tailor-made apprenticeship modes, etc. Finally, increasingly, specific (sub) regional strategies are developed to manage or to cope with the impact of globalisation, including relevant socio-economic partners (unions, chambers of commerce, employer organisations, etc) and subregional stakeholders. As major examples we can refer to Territorial Employment Pacts or alike, that are created related to major lay-offs and restructurings s.a. Sabena and Renault.

A second development is the growing interrelationships between these tripartite (sub)regional policy bodies and the bipartite sectoral funds, that are governed by the social partners of different economic sectors. These interrelationships relate for instance to the development of sector-specific vocational training initiatives, 'sectorconvenants' and occupational profiling methods in view of matching demand and supply on the labour market, and becomes obvious at the regional as well as on the subregional level.

Both developments, the integration of the economic and social policies and the growing interrelationship between sectoral and (sub)regional public and tripartite bodies, can be assessed as a strong opportunity in view of the growing importance of regional networks in a globalising economy. The geographical networking and industrial clustering, which is one of the core issues of this project, implies indeed the growing importance of integrated subregional policies. For the institutionalised industrial relation system this development implies a shift from the sectoral to the (sub)regional regulation. In fact, the identification of Flemish regional spearheads including a strong regional policy focus on innovation and economic expansion, is a testimony of this growing importance of the (sub)regional dimension in social, economic and innovation policies.

The identification of this broad range of policy domains, institutions and bodies at different policy levels offers considerable opportunities for development and take up of the project's creation of generic knowledge. Essential in this project impact is to provide these policymakers with guidance to use the opportunities opened up by the new global communications environment and the global restructuring of value chains for effective organisational innovation in view of more economic competitiveness and more sustainable jobs and in order to promote a regional sustainable development.

2.2 Interaction with stakeholders and valorisation structure

In view of a permanent and systematic interaction with the identified stakeholders a threefold complementary structure will be implemented around the project:

- a Project Advisory Committee;
- A Utility Reference Group;
- A Utilisation and Incubation Centre.

a. The Project Advisory Committee

This will be established to monitor and assess the project during its implementation and in close interaction with the researchers. This Committee will therefore meet on a regular basis, at least three times a year. The Project Advisory Committee involves stakeholders including three key perspectives of the project:

- the subregional perspective;
- the sectoral perspective;
- the perspective of socio-economic policy domains, notably economy, employment/labour market and innovation.

The aim is to include 9 members in this Project Advisory Committee, notably

- 3 representatives of GOM's (Regional Development Agencies) (respectively the successor bodies fulfilling the same role in the socio-economic subregional policies) and/or RESOC's (Regional Economic and Social Committees);
- 3 representatives of Sectoral Funds and/or Sectoral employer organisations;
- 3 representative, representing the targeted policy domains labour market, innovation and employment.

The Project Advisory Committee has a double role:

- in process assessment of the development of the different project activities and providing particular input for on-going activities;
- development of plans and strategies for uptake of the project result beyond the project in the regular activities of these stakeholders on the one hand and in new valorisation trajectories on the other hand.

In view of the establishment of this Project Advisory Group, preliminary consultation and a first meeting have been organised before the submission of this proposal. Letters of Intent, confirming the interest and participation of these members will be send in the forthcoming weeks as soon as possible for these members. Preliminary commitment for intention letters are received from:

- GOM Vlaams Brabant
- GOM Limburg
- GOM Antwerpen
- GOM West-Vlaanderen
- RESOC Antwerpen -Boom
- RESOC Leuven
- FEVIA
- AGORIA
- CEVORA
- INOM Bedienden
- IPV

b. A Project Reference Group

This second level Group is aimed at broadening the project's reference audience, mainly in view of developing more general follow up activities beyond the project and in view of providing input into relevant research programmes. A part from an enlarged representation from the stakeholders that have also representations in the Project Advisory Committee, a broader network of interested parties will be included, notably from the regional and the federal level. Ideally this Reference Group has 99 members and will especially target, on the one hand, representatives from innovation agencies, SERV (Socio-Economic Council Flanders), VDAB (Flemish Employment Office), IWT. On the other hand, representatives from relevant research programmes will be included with the aim of facilitating the valorisation of the project's outcome in further research programming beyond the project. In this respect relevant stakeholders are: representatives from VIONA (the Flemish Labour Market Research Programme) and their equivalents of research programmes in other policy domains, the several "Steunpunten" (Work and Employment and Entrepreneurship in particular), etc. Finally, this group will include leading researchers from within the "European Research Area". In summary, the following distribution of members can be aimed for:

- 30 representatives from regional and subregional audiences;
- 30 representatives from sectoral organisations;
- 30 representatives from the targeted policy domains, innovation, labour market and economy;
- 9 representatives from academia.

The Project Reference Group will be established in the first project year and will be consulted in yearly conferences.

c. An Utility and Incubation Centre

A Utility and Incubation Centre will be established in the third project year. The main objective of this Centre is to establish 'concurrent engineering' in order to reduce the leadtime from empirical and theoretical insights, developed during the project, towards practical applications. It is crucial to set up such required channel for further applications beyond the project, before the project itself is finalised. To avoid a delay of transfer and a 'gap' in the resources after the end of the project, this Utility and Incubation Centre will already investigate and ensure the preconditions and resources for further uptake.

The generic database that will result from the research activities is conceived as a generic point of departure and stepping stone. However, in order to enhance the practical utility, concrete applications and cases, for instance for specific subregions or economic sectors, should be derived from it. In the utility workpackage list that will be developed in the next paragraph, all possible applications as currently conceived are listed. Membership of the Utility and Incubation Centre will depend on the contribution in the development of the practical applications and on the potential of mobilising the required resources. In practice, members for this Centre will obviously be selected from the targeted audiences as described and as participating in the Project Reference Group and the Project Advisory Committee.

2.3 Utility and valorisation plan

In the following, a list of valorisation activities envisaged during the project is elaborated. For each of these activities a specification of the activity and the required approach will be detailed. In addition the relevant records of the research group resulting from previous projects and activities will be detailed.

2.3.1 Utility Workpackage 1: multi-stakeholder advise for firms, sectoral and subregional actors

a. Description

Based on the generic database developed in workpackage 5 Matrix, it is possible to guide and advise socio-economic actors on the potential for relocation of specific transaction chains and economic activities. Obviously, this can be of interest of firms, unions at different levels, sectoral funds, communes, subregions, sectoral consultation bodies, RESOC's, GOM's etc. The background and reasons for a need for such advises are diverse:

- Are investments in specific transaction chains worthwhile to consider? What is the risk assessment of such investment plans?
- Which elements of specific institutional contexts or policy plans is facilitating or hindering relocation?
- What is the social-economic impact of respectively exit and entry of activities? What effects can be expected on:
 - employment, skills requirements;
 - environmental effects;
 - opportunities for economic embedment;
 - regional clustering;
 - opening up of regions from the logistic point of view;
 - etc.
- What are subregions or sectors that offer similar benefits and can therefore be competitors?

The advice developed in the frame of this utility workpackage can thus be described mostly as risk assessment, SWOT-analysis and impact assessment. Even though these kind of advises is rather 'on demand' instead of proactive, they could easily serve more active support of decision-making processes. A diverse range of stakeholders can be supported in the expression of preferences thanks to the multi-criteria analyses that the database offers. The criteria included in the generic database Matrix, allow indeed to develop scenario's that can be presented to interested parties.

b. Approach and relevant experiences of the research team

The consultancy activities as described, will be a part of the portfolio of Panta Rhei, Centre for Integral Organisational Renewal and Innovation. This is a project from Leuven Research and Development that is currently being set up. This project is a collaboration between on the one hand the promoter of this proposal and on the other hand the ST-Groep. The ST-Groep is a Dutch Consultancy Bureau with 12 consultants providing socio-technical advice. This bureau is embedded academically and operates on the basis of research-based consultancy. This project will contribute to a similar LRD-spin off. According to the business plan, the spin off is normally operational halfway 2006, which suits the time schedule for this utility workpackage.

2.3. Utility Workpackage 2: Policy-oriented research on labour market, innovation and economy

a. Description

Policy initiatives per definition offer a lot of opportunities and stimuli to valorise the project outcome in terms of risk assessment. On a regular basis, policy-evaluation is included in policy initiatives. This concerns however mostly single- issue and ex post evaluation focusing on the impact of policy measures. So-called double-loop evaluation and also ex-ante evaluations are however not so common and more complex to undertake. In such evaluations, the aim is to assess the contribution of a specific policy initiatives to a broader set of strategic objectives. The problem here is that a more global frame of reference is not available and it is precisely such global frame that will be provided by the generic database Matrix. As such this implies that Flemish policy initiatives related to regional economic development, labour market and innovation can be assessed in view of their anticipative strength to benefit from tendencies related to relocation and globalisation.

b. Approach and relevant experiences of the research team

Double loop, ex ante and ex post evaluations can be included in policy preparation and policy supporting research programs developed at the Flemish level. Taking account of the current research infrastructure, such evaluations could be integrated in VIONA (labour market research program) and/or short-term projects of Steunpunt Ondernemerschap Ondernemingen en Innovatie.

The research partners have several evaluation-research experiences. In the annexes these projects are included in detail. In particular, the following activities are relevant in this respect:

- evaluation of training cheques (opleidingscheques);
- policies towards minorities in personal policies of the federal government;
- policies related to investment support;
- impact evaluation European Employment Strategy, impact evaluation National Action Plan.

In these activities, partners have been involved as promoters, researchers or members of the academic advisory group.

2.3.3 Utility Workpackage 3: Updating of the generic Database MATRIX

a. Description

The return on investment of the generic database will depend on the updating after the first delivery. This is also necessary in view of preventing obsolescence. Such updating can be assigned preferably to one of the partners and/or actors that are involved in the project. The required resources for such first update are however estimated to be minimal and do not require additional research activities likely to the ones that are the basis of its first design and construction. In principle, updating of statistics and the inclusion of data from other research should be sufficient.

b. Approach and relevant experiences of the research team

Both the transfer of the generic database and the related methodology are essential for the updating. In this respect, a protocol for transfer will be developed in the last year of the project. Several partners and actors are possibly interested for receiving the generic database in view of further updating and exploitation. The investigation of the conditions for the transfer of the generic database will be a major task for the Utility and Incubation Centre, that will be set up in the third project year as described. Further, this Centre will assess the resources and capacity of interested partners to take over the generic database.

In the PASO project (Panel Survey of Organisation Flanders), the research group has acquired considerable expertise in setting up all required conditions to manage databases and to make them useful and usable for third parties. This project 'PASO data management' included a.o.:

- extensive documentation of the database;
- the development of protocols, contracts and IPR-related agreements for third parties to work on the data, including privacy-provision and data protection aspects;
- the provision of material equipment for third parties to work on the data in secure circumstances (safeguarding privacy of company information etc.);

- quality control procedures and effective quality controls to safeguard the validity of analyses that are carried out on the data by researchers outside the PASO research team;
- a monitoring system to keep track of all use that is being made of the database.

As a result of this project, more than 25 data exploitations realised by third party researchers were possible in a period of less than 9 months. These analyses and related reports were additional to the original research project. This way the PASO database was highly valorised beyond the original project.

Another record in this respect can be provided by the STILE project (Statistics and Indicators on the Labour Market in the Economy), co-ordinated by the projectleader of this proposal and co-promoted by the current promotor. This research was a prototype for the development of new research instruments and database development. The core features and added value of STILE were precisely the fact that the project outcome served as input into existing statistics and methodologies. The following examples are a.o. relevant in this respect:

- the development of ad hoc modules for existing questionnaires;
- the establishment of national and European 'utility groups' (gebruikersgroep) including representatives of national and international statistical bodies and academia to assess and fine-tune the project outcome and to promote the uptake of the project results;
- the development of a digital toolkit on surveys and questionnaires for international research purposes.

2.3.4 Utility Workpackage 4: Contribution to statistical innovation based on the projects' output

a. Description

The success of this project can also be assessed on the basis of the extent to which it can be 'redundant' in the long term. It is indeed crucial that the project identifies critical variables to monitor global relocation movements of transaction chain. Methodological effectiveness (validity and reliability) has to be linked to efficiency. After the completion of the project, the generic knowledge of the KEROSINE project should be included in the regular monitoring system of the Flemish (or federal) government and socio-economic actors. This implies:

- the most adequate measure instrument has to be identified;
- relevant methodologies must be identified.

The database is constructed on the base of Flemish cross-sectional data and European comparative dynamic data. As exploitation of the databases grows, a *European multiplication effect* can be expected, for instance by enlarging the database with cross-sectional data of additional regions and/or countries. This way, the project's outcome, developed and initiated as prototypes in the frame of the project, might gradually become part of the *Geographic and Socio-Economical Information Structure (GSEIS)*.

b. Approach and relevant experiences of the research team

The participation of the actors involved in such monitoring have to be included in the Utility and Incubation Centre in order to organise the transfer of the project's expertise and methodologies in their infrastructure. For instance, APS (Administration Planning and Statistics, Flemish Government), Flemish Planning Bureau, Steunpunt Werkgelegenheid Arbeid en Vorming, Steunpunt Ondernemerschap, ondernemingen en Innovatie are relevant in this respect.

As to the partners' expertise, the STILE project as described earlier can be illustrative also with respect to adequate interaction and dialogue with relevant statistical bodies in view of uptake of the project results:

- recommendations from the STILE project were included in the process for the NACE review as co-ordinated by Eurostat and OECD;
- the developed best practice module on measuring telework was consulted and used for the development of the ICT-usage questionnaires from Eurostat, in the QNHS from Ireland and in the LFS from Hungary.

2.3.5 Utility Workpackage 5: Users guide and digital toolkit

a. Description

A *user-friendly digital toolkit* as possible application beyond the project. This toolkit can be conceived as a user-friendly exploitation of the project's database. In the frame of the KEROSINE project, the *specifications and a prototype* of the toolkit will be developed. Crucial in the prototype development within the project are not the project's empirical data as such, but the possibilities for tailor-made searches in view of the construction of SWOT profiles of transaction chains, regions and the combination of both. The toolkit will be complemented with a users' guide. Toolkit and users' guide can be used in regular education and in management training.

b. Approach and relevant experiences of the research team

In the course of the project, the Utility and Incubation Centre will investigate who will be the best host for the digital toolkit. Further, investigations will include the financing of these additional products. With co-finance from the ESF, the initial investment costs can be reduced. Possible organisations of interest are VOKA (Flemish Employer Organisation), GOM's and in particular VIZO. VIZO is director for the [ESF Goal 3](#). These are projects aiming for the objective 'development of entrepreneurship'. As ESF director VIZO, co-ordinates approx. 2 mio € per year European funds to stimulate entrepreneurship.

As is detailed in the track record, the project leader and promotor have developed considerable methodological and technical experience in the development of similar digital toolkits in the frame of the previous European projects, both with respect to content and syntax. In addition, the team developed also policy oriented handbooks, such as:

- handbook globalisation for the ILO;
- handbook Quality of Work for the sector of Construction for the Trade Union;
- in the frame of the STILE project a digital toolkit was developed on establishment surveys, including design details and questions (incl. Search engines) of all international establishment surveys (see www.stile.be);
- further examples from the team can be found on the following weblinks:
 - Emergence <http://www.emergence.nu/toolkit/index.php>;
 - Stooi (mibe) <http://www.ondernemerschap.be/inventaris/index.jsp>.

2.3.6 Utility Workpackage 6: Round Table conferences

a. Description

In the frame of the project, three round table conferences will be organised. A first conference will be targeted at regional socio-economic actors, a second will attract sector-related actors and the third will focus at labour market, economic development and innovation policy representatives. At each conference, the project outcome will be presented in view of a collective assessment and SWOT - analysis. Based on these SWOT-analysis, a roadmap can be developed to tackle the threats and facilitate the opportunities.

The strength of such 'active conferences' is double: to provide direct and detailed assessment of the project's activities and to promote and disseminate the project. In the preparation of these conferences and in the dialogue with the participants, it is also possible to develop more broad and encompassing conclusions of likely developments. Forecasting exercises and ideas on future developments can indeed result from the interaction between researchers and stakeholders.

b. Approach and relevant experiences of the research team

Such conferences have an important promotional and dissemination effect. The specific target audiences will be selected with the help of the Project Advisory Committee.

The experience of the research team with respect to similar conference methods are:

- Round Table for HR managers on labour market oriented HR policies in view of inclusion of the lower skilled (Min. Kelchtermans, 1999);
- Round Table on the automotive sector (Min. R. Landuyt, 2002);
- Round Table for IT-detachment (yearly, for Unipartners).

For similar expertise with this methodology, we can also refer to the various validation conferences for occupational profiles that both HIVA and Dept. Sociology have organised in the frame of Occupational Profiling Projects that were set up for sectoral organisations. More precisely, occupational profiles were developed and validated in validation conferences with HR managers, VET organisers, sectoral funds, etc. on the following occupations: construction, Informaticians, telecom operators, customer technical support, webdevelopers, call centres. These validation conferences aim at validating research findings related to task and qualification descriptions of specific occupations in view of their practical implementation. These descriptions are the basis for the development of recruitment practices, training programs and HR policies on internal mobility of staff of both enterprises and sectoral funds. This occupational profiling and validation method has been developed at the HIVA unit of the projectleader of this proposal and was later adopted by the SERV (Social Economic Council of Flanders) and included in its regular activities providing occupational profiles for sectoral partners.

Background information on research partners

Expertise and capacity of project partners

Partner 1 + project coordinator: Department of Sociology - K.U.Leuven

General information

The section 'Work and Organisation' of the Department of Sociology (K.U.Leuven) is a research team which focuses on major issues in relation to organisational design and change, economic and industrial development, (the quality of) work, and internal and external labour markets (cf. organisation of work and division of labour).

The research team conducts both fundamental as well as applied policy research. The group is currently involved in several externally funded research projects on trends in organisational change, a panel survey of organisations in Flanders (www.paso.be), teamwork, quality of work and stress, the organisational structure of start up companies in Flanders, Poland and China, innovation of products and production processes, integration of migrants on the labour market and the relationship between companies and new social movements.

In relation to fundamental research, the team focuses - in several PhD projects - on the further development of key-theoretical frameworks and methodological techniques. In relation to theory, the research group mainly concentrates on integral organisational renewal theory (based on the modern socio-technical systems theory), social-structural theories (i.e. social network theories) and institutional theories (i.e. regulation school). In relation to methodological techniques the focus is on cross-sectional and panel survey research and the systematic comparative analysis of case-studies (www.compass.org).

Research capacity

The section 'Work and Organisation' consists of three Professors, thirteen internal researchers and several external researchers (still linked with the section). Altogether, a lot of expertise exists in conducting case-analysis as well as large-scale surveys with CATI (Computer Assisted Telephone Interviewing) and face-to-face interviewing (due to the trained interviewers of the ISPO Interviewer network).

(Inter)national contacts

The section 'Work and Organisation' is also institutionally linked to the Research Centre on Entrepreneurship, Firms and Innovation (Steunpunt Ondernemerschap, Ondernemingen en Innovatie; www.ondernemerschap.be) and the Research Centre on Employment, Labour and Training (Steunpunt Werkgelegenheid, Arbeid en Vorming; www.steunpuntwav.be).

International research is carried out in collaboration with the Danish Technological Institute (DTI), the Institute for Employment Studies (IES) Brighton UK, Institut Technik & Bildung (IT&B) Bremen Germany, Forba Vienna Austria, TKI Budapest Hungary, VfA Athens Greece, Work Research Centre University of Tampere Finland, Organisatie voor Strategisch Arbeidsmarktonderzoek (OSA) Tilburg The Netherlands; IAB Nürnberg; SOFI Göttingen; University of Arizona; Katholieke Universiteit Nijmegen.

Partner 2 + project leader: Higher Institute for Labour Studies - K.U.Leuven

General information

The Higher Institute for Labour Studies (HIVA - Hoger Instituut voor de Arbeid) is a research institute attached to the Katholieke Universiteit Leuven (K.U.Leuven) in Flanders, Belgium. It was set up in 1974.

HIVA's policy-oriented research activities focus on problems facing employees, underprivileged and disadvantaged groups, social organisations and movements in society. The research activities are organised into four departments: (1) Work and Organisation; (2) Education and Labour Market Policy; (3) Social and Economic Policy; and (4) Sustainable Development. Each research department adopts a multidisciplinary approach to its

research activities. Over a period of almost 30 years, HIVA has built up a great stock of experience in many fields, and therefore not surprisingly enjoys national and international renown.

HIVA attaches importance not only to the quality of its research, but also to the wide dissemination of the knowledge and insights acquired through that research. This is achieved among other things through doctorates, publication of articles in scientific and other journals and the provision of 'tailor-made' advice and expertise, for example in the area of business and personnel organisation, provision of help and services to disadvantaged groups, labour market policy, education, etc.

Research capacity of the institute

HIVA has a staff of more than 80 people: about 60 researchers (mainly sociologists, economists, educationalists, psychologists), 5 computer scientists, and about 15 administrative people. The institute has its own technical department for conducting large-scale surveys (computer-assisted telephone interviewing and face-to-face interviewing) and data manipulation. Working languages are Dutch, French, English, and to a lesser extent German, Spanish and Italian. HIVA is participating in 'Steunpunt Werkgelegenheid, Arbeid en Vorming' (HIVA-Steunpunt WAV), an information and data support centre for studying employment, labour and training, financed by the Belgian Federal and Flemish governments. Transnational research at the European level is carried out in collaboration with many EC institutes (European Social Fund, European Foundation Dublin, CEDEFOP, Fifth Framework Programme, Socrates, Leonardo, ...).

Departments

- **Work and Organisation**

The research in this department concentrates on changes in the field of employment and organisation. How do jobs, organisations, sectors of the economy change? What effect does this have on the quality of working life, job security, risks of stress and learning opportunities? What impact do these changes have on combining work and family responsibilities, or on the labour market opportunities of weaker groups? At the same time, the research also analyses what underlies these changes and what role is played in them by various institutions and policy sectors, such as the government and the two sides of industry.

The research projects are not limited to the local, regional or national level; the research department has also come to occupy a key role in a number of leading research consortia at European level. This makes it one of the top Flemish research departments participating in the EU science programmes in the field of human sciences.

The studies in this research department are carried out from three main perspectives: organisation, personnel policy and participation. A consistent link is made with the wider labour market. The staff of this research department have a variety of training backgrounds (sociology, economics, psychology and history), thus making possible an interdisciplinary approach to the research.

- **Education and Labour Market Policy**

There are two ongoing research programmes in the Education and Labour Market Policy research department, each with its own emphases. The common ground between the two domains is also covered, for example in research on school-to-work transitions. The themes are approached from five disciplines: educational theory, psychology, sociology, law and economics.

The education research concentrates on three major themes: education and social inequality, school-to-work transitions, and the economic aspects of education. The labour market policy research also focuses on three core topics: active labour market policies (with special attention for disadvantaged groups), training and guidance for (primarily) employed people, and intermediaries in the labour market. These latter themes logically involve close co-operation with the Work and Organisation research department.

- **Social and Economic Policy**

The Social and Economic Policy research department studies both the creation and the social distribution of wealth. It does this through policy and evaluative research into systems of social protection and into the economic and social emancipation of workers. Here again, special attention is devoted to groups with a weak social position. The relationship between the economy/welfare state and the organisation of social security and social provisions is the subject of research at the macro, meso and micro-level. The client - or patient - occupies a central role.

Five research lines are developed within this research department: economy and the welfare state, housing, regional and local studies, organisation of care provisions, and poverty, well-being and health.

- **Sustainable Development**

The Sustainable Development research department views the concept of 'development' from the perspective of three key domains: social, economic and ecological. An integrated analysis is made of the relation-

ships and processes between and within these domains, and these analyses are then applied both in the Flemish and Belgian and in the international (North-South) context. The emphasis lies mainly on the analysis of policy processes, the participatory and social aspects of sustainable development, the role of social movements and the social economy.

The research in this department is concentrated on three major themes: environmental policy, sustainable development and social participation, international co-operation and migration research.

International contacts

- Member of Euronet, a European joint venture for applied social research. Other members of Euronet are: ACORD International, Luxembourg; CESO I&D, Lisbon, Portugal; CIREM, Barcelona, Spain; Danish Technological Institute (DTI), Human Resources Development, Taastrup, Denmark; Institute for Employment Studies (IES), Brighton, UK; Institut Technik & Bildung (IT&B), Bremen, Germany; ITS, Nijmegen, Netherlands; FORBA, Vienna, Austria; NEXUS, Dublin, Ireland; SFS Sozialforschungsstelle, Dortmund, Germany; TKI, Budapest, Hungary; VfA, Athens, Greece; Work Research Centre, University of Tampere, Tampere, Finland.
- Member of EESUN (European Employee Support Network). All members of the network are independent firms or institutes who are engaged in working life studies and/or consultancy to employees and their representatives. Participation of employees and their representatives in organisational changes is a common principle for all the EESUN members.
- The sector 'Work and Organisation' is also institutionally linked to the Research Centre on Entrepreneurship, Firms and Innovation (Steunpunt Ondernemerschap, Ondernemingen en Innovatie; www.ondernemerschap.be) and the Research Centre on Employment, Labour and Training (Steunpunt Werkgelegenheid, Arbeid en Vorming; www.steunpuntwav.be).
- International research is carried out in collaboration with: Universiteit Gent - Vakgroep Sociale Economie (Belgium); Universiteit Antwerpen (Belgium); Université de Namur, Centre de Recherches Informatique et Droit (CRID, Belgium); Université Libre de Bruxelles - Centre de Sociologie du Travail, de l'Emploi et de la Formation (Belgium); Université Libre de Bruxelles - Point d'Appui (Belgium); Université Catholique de Louvain - Institut des sciences du Travail (Belgium); Central Statistics Office (CSO, Ireland); Centre for Alternative Social Analysis (CASA, Denmark); Centre d'études de l'emploi (CEE, France); Centre d'Initiatives i Recerques Europees a la Mediterrània (CIREM, Spain); Centre National de la Recherche Scientifique (France); Cork Telerwork Centre (CTC, Ireland); Danish Technological Institute (DTI, Denmark); Edith Cowan University (ECU, Australia); Estadística y Análisis, S.L. (CAMIRE, Luxembourg); Forschungs- und Beratungsstelle Arbeitswelt (FORBA, Austria); Forschungszentrum Karlsruhe GmbH - Technik und Umwelt, Institut für Technikfolgenabschätzung und Systemanalyse (Germany); Institut für Arbeitsmarkt- und Berufsforschung (IAB, Germany); Institute for Employment Studies (IES, UK); Institute of Management and Information Technology (IMIT, Sweden); Institute of Political Science, Hungarian Academy of Sciences (PTI, Hungary); Institute of Sociology, Hungarian Academy of Sciences (ISB, Hungary); Instituto Ricerche Economiche e Sociale (IRES, Italy); Instituut voor Toegepaste Sociale Wetenschappen, Nijmegen (ITS, The Netherlands); Joanne H. Pratt Associates (Dallas, USA); Linköping University - Centre for Studies on Humans, Technology and Organization (Sweden); Nexus (Ireland); NOP Business Research (UK); Social Research Association (SRA); Sozialforschungsstelle Dortmund (SFS, Germany); Simon Fraser University (SFU, Canada); Stichting Organisatie voor Strategisch Arbeidsmarktonderzoek (OSA, The Netherlands); Technical Research Centre of Finland, Automation, Machine Automation (Finland); Universidade Nova de Lisboa - Faculdade de Ciências e Tecnologia, Centro de Investigação de Ciências Sociais Aplicadas (UNL-FCT, Portugal); Università Cattolica del Sacro Cuore - Laboratorio Psicologica Sociale Applicata (Italy); Università degli Studie die Siena - Laboratorio Multimediale (Italy); Universität Bremen - Institut für Technik und Bildung (ITB, Germany); Universität zu Köln - Seminar Sozialwissenschaften (Germany); Université de Neuchatel - Institut de Sociologie et de Science Politique (Switzerland); University of Münster, Institute for Information, Telecommunications and Media Law (ITM, Germany); University of Tampere - Work Research Centre of the Research Institute for Social Sciences (WRC, Finland); Victoria University of Manchester (UK); ...

Partner 3: Faculty of Economics and Business Administration, University Ghent

Doctoral research of the group

The research group of Prof. Clarysse at the has been active in the domain of Innovation, Entrepreneurship and Technology policy for nearly 10 years. Since 2000, Prof. Clarysse has been supervising different doctoral students that are active in the broad domain of high technology entrepreneurship.

The doctoral research started with data collection in a sample of 'Research Based Start Ups' in Flanders (RBSUs). RBSUs are companies that are active in developing a product or service for commercialisation. To construct the sample frame of RBSUs, different sources were employed: listing of academic spin-outs, portfolio of venture capitalists, and start ups that received R&D subsidies. Next, the sample is complemented with a random selection drawn from the entire population of companies that are active in high-tech and medium-high-tech industries. The primary data source is a structured questionnaire, which is conducted during face-to-face interviews with the founder(s). The data provide detailed insights in the firm's resources and new product development processes and enable us to observe a timeline of events for each company, including if and when it completed its first product.

Ans Heirman is performing her doctoral research on this group of innovative high technology companies. Her research focuses on the early growth path of high tech start ups. More specifically, she studies how young technology-based companies acquire and build-up human, technical and financial resources and how this relates to their pre-founding history, strategy, industrial setting and 'success' (Heirman et al., 2003). In 2002-2003 she stayed as a Visiting Fellow at the Sloan School of Management, M.I.T. Ans has degree in bio-engineering degree from Ghent University. She defended her thesis in December 2004.

Nathalie Moray focuses on the academic spin outs as a sub population of research based start ups. Taking institutional theory as a framework, she investigates how parent organisations shape the nature of the spin off process and the start up characteristics of the ventures they generate. This research focuses on the nature of that interaction at different levels of analyses. First, at the level of one spin off, then at the level of one institution, and finally comparing different European academic institutions and the spin offs they generated (Clarysse & Moray, 2004; Moray & Clarysse, 2003). Nathalie has a Master in Medical Social Sciences (1998) and a Teaching Degree in Social Health Sciences (1999) She worked in several health care settings (1995-1999) and in higher education as a lecturer (1997-1998). Since 1999, she has been a Research associate at Ghent University and the Vlerick Leuven Ghent University. She is an ICM Doctoral Fellow since 2000, pursuing research in the domain of technology transfer by spinning off ventures. In 2001-2002 she stayed as a Visiting Fellow at the Sloan School of Management, M.I.T. Nathalie obtained her PhD in September 2004.

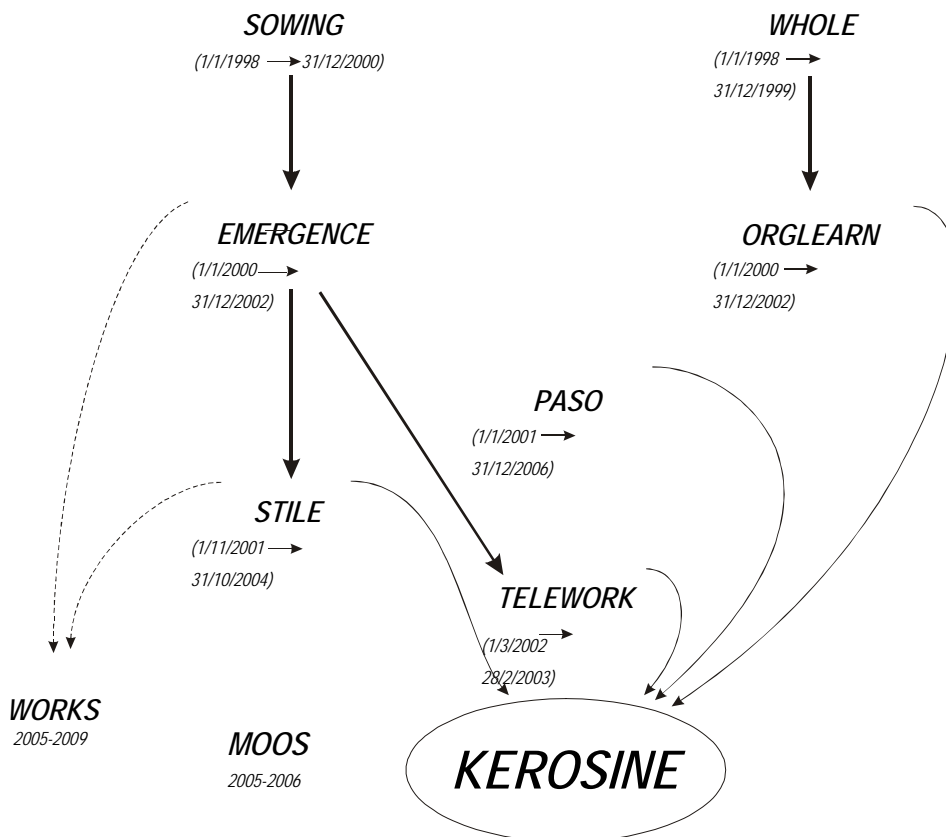
Els Van De Velde is a doctoral student doing research on the process through which new companies are formed in corporate, industrial firms.

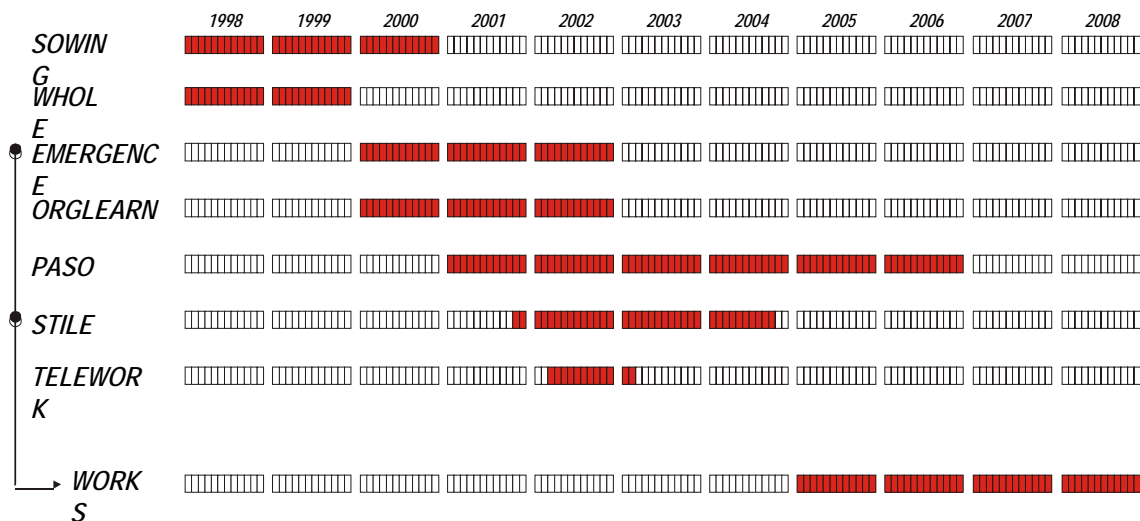
Mirjam Knockaert, in turn, studies one of the major determinants influencing the success of high technology companies and research based start ups in particular: Venture Capital. More specifically, she studies the selection and monitoring behaviour of early stage venture capitalists. Mirjam has a Master in Applied Economics (University of Leuven, 1997) and a Teaching Degree in Applied Economics (University of Leuven, 1997). She specifically investigates selection and monitoring behaviour of investors in early stage companies. In 2003, 70 venture capital firms were visited and their selection and monitoring behaviour was analysed.

Track record of the project partners

As is apparent from the various attachments, the research partners have built considerable expertise in fundamental scientifically-oriented research as well as in applied policy-oriented research. Furthermore, the partners have also developed expertise in extending the value of the executed fundamental research into positive and innovating spill-over effects that added extra value to applied research designs. Accordingly, these experiences have contributed to a firm body of knowledge and expertise of a rather wide diversity of research approaches and methodologies. The participation in several research projects, the existing scientific collaboration networks, and the organisation of scientific activities and conferences related to the innovation of research methods, are only a few indications of the solid scientific base that has thus been built up by the research partners. The partners, moreover, share a longstanding tradition of mutual collaboration in several intra- and inter-organisational configurations.

All relevant research projects are listed in attachment to this proposal. Numerous projects, linked to each other or developed in parallel, contribute in one way or the other, to the broad, fundamental scientific and strategic research questions, that underpin this proposal. Separately commenting on each of these projects at great length is beyond the scope of this text. However, in relation to the current proposal, a genealogical typology of these various projects clarifies as well the underlying links and logics, as the necessary switch that has to be made to the strategic and fundamental character of this proposal. This is graphically expressed in the figure below.





The point of departure for the current project-proposal is formed in a number of projects in the EC Fourth and Fifth Framework Program, within the TSER and within the Information Society Technologies (IST) Program. The SOWING-project was targeted at 'Information society, work and the generation of new forms of social exclusion', and included, next to the project co-ordinator and HIVA, the following partners: IRES (Italy), IES (UK), FCT-UNL (Portugal), Forba (Austria), Nexus (Ireland), ITAS (Germany), and was co-ordinated by WRC (Finland). Already in the second operational year, some partners (including the applicants of the project themselves) found the scope of the project to be too broad, in addition to, and even more importantly the perceptions that the standard methodologies which were initially planned, were inadequate to capture the reality of the Information Society. The research questions were far too focused on direct policy issues, which implied, in absence of available fundamental scientific knowledge, that they the provision of, even partial, answers had become virtually impossible. In terms of deliverable, the project was nevertheless successfully finalised. The results were also widely disseminated among the scientific community by means of two scientific conferences and two readers were disseminated by scientific publishers. In addition, specific partners in the research, in varying co-authorship, published diverse peer reviewed articles in scientific journals.

Generally, the project left the researchers question with a lot of questions. With several partners of the consortium mentioned above, a new consortium was founded, in which a far more astute problem-statement and more appropriate research techniques were employed in order to formulate answers on the pondered questions. These were summarised as follows: 'Relocation in a Global Economy in the New Communications Environment'. The objective was the 'Estimation and Mapping of Employment' in this new environment. EMERGENCES was the acronym of this project, which was successful in several respects. Three scientific conferences, several research reports, newsletters and a popular website (www.emergence.nu) featuring digital tools were the outcome. Peer reviewed articles are currently in preparation. Conversely, the project also generated several spin-offs. One of the latter, a project on 'telework' on behalf of the federal authorities of scientific policy (previously DWTC), extends the research methodology to the nation-state level, as has also been done in Ireland and Denmark. The majority of these spin-offs, encompass a rather global perspective (US, Canada, Australia and Asia).

EMERGENCES focused on plausible relocation movements that were caused by technological factors and was limited, in accordance with widely-spread excitement concerning the eEconomy, to transactions in the service sector (i.e. accounting, software engineering, etc.). However, the results itself, the discussions during the conferences and extensive self-assessment, indicated that a 'back-to-basics' approach had become rather necessary. Fundamental scientific projects -theoretical as well as methodological- that incorporate the ambition to formulate answers on applied questions, appear to have become, even after all these European and global investments in R&D, the only plausible road to successful monitoring and analysis of the new economy in the new society. Solely this type of research will offer the opportunity to effectively transform technology-investments into reality.

A first answer on this fundamental scientific question has been provided by the research project with acronym 'STILE. This acronym stands for 'Statistics and Indicators on the Labour Market in the eEconomy'. The role of co-ordinator of this project is fulfilled by the project-leader of the current proposal. This project will be finalised in the fall of 2004 and is carried out by partners from 10 different countries. The basic principle of this project, and its 8 workpackages, is the conclusion that the current developments related to the Information Society cannot be 'measured' with the available methods and instruments. A re-orientation, and above all, innovation to investigate the generic aspects of the Information Society is the general aim and outcome of this project (see www.stile.be). The approval, and to date successful accomplishment of this project, is in our view a strong confirmation and acknowledgement of the IST program of the roadmap developed so far.

A continuation and further deepening of the research questions will in the near future be embedded in the WORKS project - WORKS is an acronym derived from 'Work Organisation and Restructuring in the Knowledge Society' - currently in the phase of contract preparation as an Integrated Project within the Sixth Framework Programme of the European Commission. This proposal was submitted under Thematic Priority 7 (Citizens and Governance in the Knowledge-based Society) under thematic area 'Changes in Work', for which it was the only project proposal amongst 16 submitted that passed the required evaluation thresholds. In conformance with the philosophy of Integrated Projects, the WORKS proposal is a research program that puts the emphasis on the interwoven nature of diverse technological, economic and societal processes. The co-ordinator and principal applicant of this Integrated Project is the project leader of this proposal, Monique Ramioul. WORKS is supported by the participation of 17 partners from EU member states and accession states, including again the partners of the consortium of this tender. In conformance with the philosophy of Integrated Projects, the WORKS proposal is a research programme that puts the emphasis on the interwoven nature of diverse technological, economic and societal processes and change. Submitted under the thematic priority 'Changes in work', this project is the current culmination of the joint research approaches of the group. The main aim and objectives of WORKS include a broad and, above all, comprehensive and integrated research agenda on the current industrial changes that we testify. WORKS aims at deepening and broadening the knowledge on changes in work, at the global level (including restructuring at the level of globalised value chains) at a workplace level (including the investigation of workplace innovation), at the regional level (in view of a comparative institutional approach) and at the individual level (including time use and qualification issues). The project is based on the need felt to address the problems and societal aspects related to globalisation in a more fundamental and comprehensive way and in order to explore how this knowledge can contribute to policy strategies.

The successful submission as a project co-ordinator of such a large-scale project under the new instruments developed in the 6FP, gives evidence of the broad scientific basis and the very ambitious research objectives that the applicants of this proposal are able to develop, and of the availability and international acknowledgements of the organisational conditions and expertise that allow to steer, stimulate and co-ordinate such a project and such a consortium.

Finally, a smaller but quite relevant project is MOOS 'Making Offshore Outsourcing Sustainable', which is a Article 6 ESF-funded project led by UNI Europa - IBITS (2005-2006). Monique Ramioul is the research partner in this project. MOOS is a pan-European project focusing on the transfer of jobs within the professional and knowledge intensive sectors of the economy. The project aims at increasing the understanding on the mechanisms of offshoring and the flows of these processes. This will be possible through the use of the extensive networks of the eight trade union partner organisations in the project. This will be done through online reporting tools, 'offshore outsourcing trackers' allowing the network to report on offshore outsourcing events of companies belonging to the IBITS sectors both in a short 'monitoring' way, and in a questionnaire collecting more detailed qualitative information on the relocation event. The analysis of these cases will be the major input for a case study report and a handbook on 'Making offshore outsourcing economically and socially sustainable'.

However, the present project-proposal aims, starting from the evaluation analysis made above, to deepen and to broaden the knowledge with regards to globalisation and relocation movements of transaction-chains, based on the need felt to address the problems and societal aspects related to this globalisation in a more fundamental and comprehensive way and in order to explore how this knowledge can contribute to policy strategies. More specifically, the research and the proposed workpackages are concerned with the relative balancing of on the one hand the assessment of the institutional embeddedness of transactions in relation to other important determinants of location.

Additionally, the line of research that has been depicted above was also influenced by at least two parallel theoretical as well methodological lines of research.

Parallel to this line and starting from a thematic network (Whole) within the TSER program (4FP), the research partners participated in research (Orglearn) that, through a multidisciplinary approach (including psychology, education science, sociology and mathematics) explored the relationship between, on the one hand, knowledge, skills and competences, and production processes on the other hand. Alarming results, that were provided by fundamental scientific research in cognitive psychology, indicating that knowledge, skills and competences are 'contextualised' assets formed the basic point of departure for this research. In other words, knowledge, skills and competences are to a considerable extent embedded in the production process, and are therefore not automatically transferable. The fundamental scientific research on the embeddedness of work process knowledge has been carried out on the premises and with collaboration of BASF Antwerp.

A final research track underpinning this proposal is the Panel Survey of Organisations, Flanders, that is co-ordinated both by (a.o.) the project co-ordinator of this proposal and the project leader). With funding of the Flemish Ministries of Economy and Employment, a panel of organisations is constructed that is yearly surveyed. Some of the themes of this investigation are included yearly, while others are included cyclical with a longer interval. This project is developed on the basis of a fundamental scientific international meta-benchmark of analogue panel surveys in other countries. This project is a best practice example of the combination of fun-

damental scientific and policy-oriented research. Currently, two PhD projects and four postdoc projects are linked to PASO while at the same time the broad and diverse research results are acknowledged and used as strategic input by the Flemish administrations of Economy and Employment. The expertise developed with PASO guarantees an optimal logistic organisation of data collection, exploitation and use. Within the PASO project, innovative knowledge is obtained on population construction, sampling strategies, survey questionnaire construction, survey methods (websurvey, CATI) and last but not least strategies and approaches for complex data analysis related to quantitative data of enterprises (bivariate, multilevel, comparative case analysis, etc.). The innovative methodological approaches, in particular in mutual combination, are an important input and trademark of this proposal.

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Knowledge Economy and Regional Strategies for Organisational and Sustainable Innovation (KEROSINE)

Administratieve bijlagen

Administratieve gegevens

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Prof. dr. Geert Van Hootegem studied Social Science at the Katholieke Universiteit Leuven (K.U.Leuven) from 1980 to 1985 and is doctor in the Social Sciences (1999). In 1989-1995, he was scientific assistant at the Study centre Sociology of Work and Organisations, Katholieke Universiteit Leuven where his research topics included: temporary labour, Japanese organisations in Belgium, car industry, flexibility, new technology and effects on qualifications in the health care. From 1994 to 2000 (till 1996 full-time, from 1996 part-time) he was assistant professor at the Nijmegen Business School (Katholieke Universiteit Nijmegen). Since 1996 till 2000 he has been a Project Manager at the Higher Institute of Work and Organisation, Katholieke Universiteit Leuven. From 1999 on, till the end of 2000 he was head of the sector labour studies at the institute. Currently, he is professor at the Department of Sociology. Conducting research on new production concepts, flexibility, lean production, new technology, socio-technical system design, integral organisational renewal, the information society and globalisation. He has also carried out research on: team based work and socio-technical system design.

Projectleider + Partner 2

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Monique Ramioul is a sociologist (sociology of work and organisation). From 1985 until 1990 she worked as a researcher at the Department of Sociology of Work and Organisation - K.U.Leuven. After that (1990-1995) she worked as an advisor at the Flemish Foundation for Technology Assessment, where she conducted research on issues like the impact of technological innovation on the organisation of work, outsourcing, flexibility, the position of female workers on the labour market and related issues. In 1995, she returned at the university. Between October 1999 and September 2000, Monique Ramioul worked as a case officer at the Policy and Programme Evaluation Unit of the Information Society Directorate General, European Commission (Brussels). From September 2000 on, she is Head of the Work and Organisation Sector at HIVA, the Higher Institute for Labour Studies (HIVA-K.U.Leuven). Her main research topics concern the information society, organisational innovation

and labour market issues. From November 2001 on, she is the co-ordinator of STILE, a multi-annual project with 8 European partners within the Fifth Framework Programme of the IST programme. Further, she is one of the core partners in the PASO Flanders project (Panel Survey on Organisations), an economy-wide organisations panel research on organisational innovation and Human Resources Management, and co-promoter of the Policy Research Centre 'Entrepreneurship, enterprises and innovation'.

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Bart Clarysse is professor Technology and Innovation Management at Ghent University and the Vlerick Leuven Gent Management School. He has written several international publications in the field of innovation, R&D management, technology policy and entrepreneurship in leading journals such as Research Policy, Journal of Business Venturing, International Journal of Technology Management, and STI Review. He teaches in the master programs of the Vlerick Leuven Gent Management School and Ghent university and participates in several executive education programs for companies including KLM and Interbrew. He is also the founder of Vlerick Venture Coaching. VVC supports innovative start ups, SMEs and innovative multinational companies in evaluating and realizing their radical technical, commercial and organizational innovations.

Aangevraagde en toegekende overheidssteun (Vlaams, Federaal en Europees) van de laatste vijf jaar

Partner 1 + projectcoördinator: Departement Sociologie - K.U.Leuven

Projectleiding Onderzoekers	Titel	Oprichtgever	Samenwerking / projectpartners	Looptijd
Jan Bundervoet Geert Van Hootegem Jan Dombrecht	Organisatorische en psychosociale factoren en ontwikkeling van musculo-skeletale problemen in de bovenste ledematen.	DWTC	Prof. J. Malchaire - UCL Prof. G. Karnas - ULB	01/10/1999 tot 30/09/2003
Jan Bundervoet Rik Huys	De hybridisatie van organisatiemodellen. Een internationale vergelijking van bedrijven en onderzoeksmethoden.	KU Leuven Onderzoeksfonds		01/10/2000 tot 30/09/2002
Jan Bundervoet Ludo Struyven	De betekenis van samenwerking voor arbeidsbemiddeling.	KU Leuven Onderzoeksfonds		01/10/2002 tot 30/09/2003
Jan Bundervoet	Invoering van NACE-BEL in RSVZ-databank. Datawarehouse. Arbeidsmarkt. Verbetering van het Nationaal Repertorium van Kinderbijlagen.	DWTC	Steunpunt Wergelegenheid, Arbeid, Vorming (WAV)	01-01-1999 tot 31/12/2001
Albert Martens Hans Verhoeven	Integratie in het kwadraat: naar een duurzame, evenredige tewerkstelling van 'andere werknemers'.	Viona	HIVA	01/12/2000 tot 31/03/2002
Geert Van Hootegem Rik Huys	Verankering automobieliindustrie in Vlaanderen.	Vlaams minister van Wergelegenheid en Toerisme - R. Landuyt (VIONA)		01/10/2001 tot 28/02/2002
Geert Van Hootegem Joris Van Ruyseveldt	Uitgevoerd op afstand. Onderzoek naar de verspreiding, voorwaarden en implicaties van telewerk.	DWTC	HIVA, ULB	01/03/2002 tot 28/02/2003
Geert Van Hootegem Joris Van Ruyseveldt Joke Manshoven	Organisatiestructuur en mobilisatie van human resources: indicatoren voor een verruimd innovatiebeleid.	DWTC	HIVA, ULB	01/04/2002 tot 31/12/2003
Geert Van Hootegem	Ontwikkeling en implementatie van een studentgerichte en studeerbare 'Inleiding in de Sociologie'. Een project ter realisatie van begeleide zelfstudie.	OOI-project, K.U.Leuven		01/07/2002 tot 30/06/2004
Geert Van Hootegem Anne Delarue	Hoe werkt teamwerk? Performantie-outcomes van teamwerk als effect van structuur- en proceskenmerken.	FWO-Aspirantschap		01/10/2003 tot 30/09/2005
Geert Van Hootegem Axel Marx	Conflict en co-operatie in de Post-industriële samenleving.	DWTC	Prof. Benoit Rihoux - UCL	01/04/2003 tot 31/03/2005
Albert Martens Hans Verhoeven	Wetenschappelijke evaluatie en opvolging van het ESF-project Inburgering.	Centrum voor Gelijkheid van Kansen en Racismebestrijding		01/05/2002 tot 31/08/2002
Albert Martens Hans Verhoeven Jochen Anthierens Danny Neudt	Analyse en evaluatie van het minderhedenbeleid.	Ministerie van Welzijn en Gelijke Kansen (M. Vogels)		01/11/2002 tot 31/05/2003

Projectleiding Onderzoekers	Titel	Opdrachtgever	Samenwerking / projectpartners	Looptijd
Albert Martens Hans Verhoeven Sarah Vertommen Marjan Van de Maele	Etnische discriminatie op de arbeidsmarkt in Brussel.	Brusselse Gewestelijke Dienst voor Arbeidsbemiddeling	ULB	01/02/2004 tot 31/01/2005
Albert Martens Guy Van Gyes	Werknemersinspraak in een gewijzigde bedrijfsomgeving: hoe dit als vakbond uitbouwen? Een analyse van de Belgische georganiseerde arbeidsverhoudingen op bedrijfsniveau.	KU Leuven (doktoraatsproject)		
Albert Martens Axel Marx	Duurzaam ondernemen. Milieuproblemen en organisatieveranderingen.	KU Leuven (doktoraatsproject)		
Geert Van Hootegem Johan Dejonckheere	EMERGENCE: outsourcing ICT-gerelateerde procesdelen.	Europese Commissie (5de kaderprogramma)	IES (UK), DTI (DK), FORBA (A), ISB (H), IRES (I), IMIT (S), NOP (UK), ECU (Australië), SFU (Canada)	2000-01-01 tot 2002-12-31
Geert Van Hootegem Jeroen Delmotte	Hoe werven bedrijven?	Upedi		2000-01-01 - 2001-04-30
Joris Van Ruyseveldt Geert Van Hootegem Fernando Pauwels	ORGLEARN: de lerende chemische organisatie.	European Commission (5de kaderprogramma)	Universität Bremen, ITB (coördinator) (Germany), Victoria University of Manchester (UK), Università degli Studi di Siena (Italy)	2000-01-01 - 2002-12-31
Geert Van Hootegem Jeroen Delmotte	Personeelsbeleid in KMO's: een onderzoek naar de kenmerken van een effectief KMO-personeelsbeleid.	Vlaams Minister van Onderwijs en Vorming - T. Kelchtermans (VIONA); ESF-Comité van Toezicht doelstelling 4 Vlaanderen	Miet Lamberts - HIVA Prof. Luc Sels - ETEW KU Leuven	1999-10-01 - 1900-12-31
Geert Van Hootegem Rik Huys An Bollen Seth Maenen Roel Verlinden	Statistics and indicators on the labour market in the e-economy (STILE)	European Commission (5de kaderprogramma (FP5-IST)	Monique Ramioul - HIVA (hoofdpromotor) CTC (IRL), IES (UK), Camire (LUX), IAB (D), IRES (I), OSA (NL), ISB (HU), CSO (IRL)	2001-11-01 - 2004-10-31
Geert Van Hootegem Tom Van der Steene	Trendstudie sociaal-organisatorische innovaties in het bedrijfsleven. De toekomst van systeemregulerend werk in de procesindustrie.	FWO	Luc Sels - Departement TEW KU Leuven (hoofdpromotor)	2001-01-01 - 2003-12-31
Jan Bundervoet Geert Van Hootegem Joris Van Ruyseveldt Joke Manshoven Jan Dombrecht	Stress in de Banksector	Paritair Comité voor de Banken	ULB/ISW- IDEWE/Onderzoeksgroep stress, gezondheid en welzijn, K.U. Leuven	2001-02-01 - 2002-01-28
Geert Van Hootegem Axel Marx	COMPASS: Comparative methods for the Advancement of Systematic cross-case analysis and Small-n Studies.	Onderzoeksnetwerk: FNRS - FWO - UA - UCL - CERP - Steunpunt OOI - BCF	Onderzoeksnetwerk: FNRS - FWO - UA - UCL - CERP - Steunpunt OOI - BCF	

Projectleiding Onderzoekers	Titel	Opdrachtgever	Samenwerking / projectpartners	Looptijd
Geert Van Hootegem	Tendrapport organisatieconcepten, kwaliteit van de arbeid en de arbeidsmarktimplicaties: een noodzakelijke en haalbare kaart?	Vlaams minister van Werkgelegenheid en Toerisme - R. Landuyt (VIONA)	Departement TEW, K.U.Leuven	2000-12-01 - 2000-06-15
Geert Van Hootegem	Beroepsprofiel van de begeleider in beschut wonen	vzw Zagan		2000-01-01 - 2000-04-30
Geert Van Hootegem	Regionale Imput-Outputtabellen	Vlaamse Gemeenschap, Administratie Planning & Statistiek	Departement TEW, K.U.Leuven, HIVA	2001-11-01 - 2002-11-30
Geert Van Hootegem Bart Cambré Ellen Ceulemans	Diversiteit binnen de Federale Overheid: tewerkstelling van allochtonen in het federaal openbaar ambt.	FOD Personeel & Organisatie	Insituut voor de Overheid ULB	2004-02-16-2004-07-31
Geert Van Hootegem Bart Cambré Jan Bundervoet Rik Huys Christien Gilleir Brigitte Cosemans	Oud is out? Over objectieve factoren die vervroegde uittrede uit de arbeidsmarkt veroorzaken.	Minister van Werk Freya Van den Bossche		15/01/2005-15/07/2005
Geert Van Hootegem Luc Sels Bart Cambré Stijn Gryp Anne Delarue Steven Marx Sara Vertommen Johan Maes Dries Faems	Steunpunt Ondernemerschap, Ondernemingen en Innovatie	Vlaamse Overheid	UGent TEW (KU Leuven) Vlerick Leuven Gent Management School	
Geert Van Hootegem Luc Sels Bart Cambré Stijn Gryp Sophie De Winne Anne Delarue Johan Maes	PASO Flanders (Panel Survey of Organisations)	Vlaamse Overheid	VIONA HIVA R.U.C.A R.U.G Idea Consult Departement TEW K.U.Leuven	01/09/2001 tot 30/12/2006
Geert Van Hootegem Luc Sels Dries Faems	Onderzoeksgroep 'Intrapreneurship, innovatie en kennisorganisatie' binnen het Steunpunt 'Ondernemingen, ondernemerschap en innovatie'	Vlaamse Overheid	Steunpunt Ondernemerschap, Ondernemingen en Innovatie	2002-01-01—2006-09-30

Projectleiding Onderzoekers	Titel	Opdrachtgever	Samenwerking / projectpartners	Looptijd
Geert Van Hootegem Luc Sels Bart Cambré Johan Maes Stijn Gryp Sara Vertommen	START: onderzoek naar de Startende ondernemingen in Vlaanderen	Vlaamse Overheid	Steunpunt Ondernemerschap, Ondernemingen en Innovatie	2003-2006
Geert Van Hootegem Sim d'Hertefelt	Databankinventarisatie	Vlaamse Overheid		2002-2003

Partner 2: Hoger Instituut voor de Arbeid (HIVA) - K.U.Leuven

Projectleiding Onderzoekers	Titel	Oprichtgever	Samenwerking	Looptijd
Tom Vandenbrande Veerle Cortebeek Rik Huys	Quality industrial relations	European Foundation		01/11/2003 tot 29/02/2004
Monique Ramioul Gert Theunissen Steven Marx	Provinciale valorisatie PASO-Flanders	Kamers van Koophandel van de vijf Vlaamse provincies	Prof. dr. L. Sels (TEW K.U.Leuven)	05/02/2002 tot 31/05/2003
Miet Lamberts	Tendrapport: De internationalisering van de Vlaamse arbeidsmarkt. Onderzoek naar de behoeften en de randvoorwaarden van de sectoren aan de vraagzijde (inzake migratiebeleid)	Vlaams minister van Werkgelegenheid en Toerisme - R. Landuyt (VIONA); zwaartepunt 6 v/h EPD doelstelling 3 Vlaanderen	i.s.m. Johan Wets (sector duurzame ontwikkeling)	15/12/2001 tot 15/06/2002
Miet Lamberts Roel Verlinden	Uitwerking Handleiding 'Competentiemanagement' voor vorming van militanten in metaal- en aanverwante sectoren, staal, non ferro, textiel-, confectie-, wasserij-, bouw- en aanverwante, houtverwerkende-, cement en beton-, grafische sectoren	ACV		03/06/2002 tot 09/09/2002
Guy Van Gyes Roel Verlinden	Arbeid in de informatiesamenleving. Wetenschappelijke voorbereiding congres ACV Verbond Mechelen-Rupel	ACV Mechelen-Rupel		15/04/2002 tot 15/10/2003
Guy Van Gyes Ellen Schryvers	UPCASE - Plateform d'usagers et développement d'applicatifs collaboratifs pour l'économie sociale - Eerste fase	Diensten van de Eerste Minister - Wetenschappelijke, Technische en Culturele Aangelegenheden (DWTC)	RES-e-NET asbl (coördinator), Arafox scrl & Université de Liège-Lentic	15/12/2001 tot 31/12/2003
Tom Vandenbrande Rik Huys	Verkenning van arbeidsmarktontwikkelingen en beleidsuitdagingen 2004-2010	Vlaams minister van Werkgelegenheid en Toerisme - R. Landuyt (VIONA oproep 2002); EPD doelstelling 3, Vlaanderen		01/12/2002 tot 30/11/2003
Tom Vandenbrande Joke Manshoven	Onderzoek naar de verspreiding, voorwaarden en implicaties van telewerk	Diensten van de Eerste Minister - Wetenschappelijke, Technische en Culturele Aangelegenheden (DWTC)		01/06/2002 tot 31/05/2003
Anneleen Forrier Fernando Pauwels	Organisatiestructuur en mobilisatie van human resources: indicatoren voor een verruimd innovatiebeleid	Diensten van de Eerste Minister - Wetenschappelijke, Technische en Culturele Aangelegenheden (DWTC)	Dep. Sociologie K.U.Leuven (Prof. dr. G. Van Hoetegem) & TEF-ULB (M. Alaluf)	01/04/2002 tot 31/12/2003
Ides Nicaise	Sysdem 2002-2003: nationaal arbeidsmarktexpert van het European Employment Observatory	ECOTEC		01/11/2002 tot 30/06/2003
Ides Nicaise	Employment potential of EC policies	PLS		

Projectleiding Onderzoekers	Titel	Opdrachtgever	Samenwerking	Looptijd
Ludo Struyven	Managing social risks through transitional labour markets. TLM.net Thematic Network	European Commission - 5th Framework Programme (subcontract SISWO)		01/11/2002 tot 30/10/2005
Hans Bruyninckx	Uitwerken van een instrumentarium voor de werking van de niet-gouvernementele organisaties in het kader van het nieuwe samenwerkingsakkoord voor duurzaam lokaal beleid	Vlaams Overleg Duurzame Ontwikkeling		28/02/2002 tot 31/05/2002
Hans Bruyninckx	EnquÛte draagvlak duurzame ontwikkeling	Federale Raad voor Duurzame Ontwikkeling (FRDO)	Institut de Gestion de l'Environnement et d'Aménagement du Territoire (IGEAT, ULB)	
Monique Ramioul Rik Huys An Bollen Roel Verlinden	Statistics and indicators on the labour market in the eEconomy (STILE)	Commission of the European Communities - DG Information Society (5th framework - IST programme; Eurostat)	Monique Ramioul - HIVA (coördinator), CTC (IRL), IES (UK), Camire (LUX), IAB (D), IRES (I), OSA (NL), ISB (HU), CSO (IRL), Joan H. Pratt (USA)	01/11/2001 tot 30/09/2004
Monique Ramioul Roel Verlinden	REICAR Innovatieve netwerken en netwerkcompetenties	Spanish Secretary of State of Science and technology (subcontract CIREM Barcelona)	SFS (DE), ITS (NL)	03/04/2001 tot 31/12/2002
Monique Ramioul Veerle Cortebeek	Impactevaluatie Europese Werkgelegenheidsstrategie	Ministerie van Tewerkstelling en Arbeid (subcontract ULB-DULBEA)		01/03/2001 tot 31/01/2002
Guy Van Gyes Ellen Schryvers	RESPECT - Professional and ethical codes for technology-related socio-economic research	Commission of the European Communities - Directorate-General Information Society (IST Programme)	6 Europese partners, coördinatie: Institute for Employment Studies (IES)	01/04/2002 tot 31/03/2004
Guy Van Gyes	Industrial relations and innovation	Commission of the European Communities - DG Enterprise	CASA (D), FORBA (A), IRES (I)	06/09/2000 tot 05/10/2002
Ides Nicaise	System 2001/B. European Employment Observatory - The SYSDM Network of Labour Market Experts	European Commission - DG Empl (subcontract ECOTEC Research and Consulting Ltd, Birmingham, UK)		26/11/2001 tot 26/04/2002
Johan Wets	Opstelling van een analysekader van de interviews van asielzoekers	Diensten van de Eerste Minister - Wetenschappelijke, Technische en Culturele Aangelegenheden (DWTC)		

Projectleiding Onderzoekers	Titel	Opdrachtgever	Samenwerking	Looptijd
Monique Ramioul Johan Dejonckheere	Outsourcing ICT-gerelateerde procesdelen EMERGENCE	Commission of the European Community (5th framework - IST programme)	IES (UK, project co-ordinator, DTI (DK), FORBA (A), ISB (H), IRES (I), IMIT (S), NOP (UK), ECU (Australia), SFU (Canada)	01/01/2000 tot 31/12/2002
Monique Ramioul Steven Marx	Panel of Organisations Survey Flanders	Vlaams minister van Onderwijs en Vorming - M. Vanderpoorten (VIONA) / EPD doelstelling 3, Vlaanderen	promotor: Luc Sels (Dep. ETEW K.U.Leuven), co-promotoren: Geert Van Hootegem & Jan Bundervoet (Dep. Sociologie K.U.Leuven)	01/12/2000 tot 30/11/2004
Joris Van Ruysseveldt Fernando Pauwels	De lerende chemische organisatie ORGLEARN	Commission of the European Communities (5de kaderprogramma)	Universität Bremen (co-ordinator), Victoria University of Manchester, Université degli Studi die Siena	01/01/2000 tot 31/12/2002
Hans De Witte Jan Vandoorne Roel Verlinden	Social Convoy and Sustainable Employability (SOCOSE)	Commission of the European Communities DG V (Fifth framework)	co-ordination: Institut für Technik und Bildung, Universität Bremen (ITB, Deutschland)	01/07/2000 tot 30/06/2003
Hans Bruyninx	Valorisatie indicatoren duurzame ontwikkeling in België	Diensten van de Eerste Minister-Federale diensten voor wetenschappelijke, technische en culturele aangelegenheden (DWTC)		
Geert Van Hootegem Rik Huys	Trendrapport organisatieconcepten, kwaliteit van de arbeid en de arbeidsmarktimplicaties: een noodzakelijke en haalbare kaart?	Vlaams minister van Werkgelegenheid en Toerisme - R. Landuyt (VIONA)		01/12/1999 tot 15/06/2000
Geert Van Hootegem Jeroen Delmotte	Personeelsbeleid in KMO's: een onderzoek naar de kenmerken van een effectief KMO-personeelsbeleid	Vlaams Minister van Onderwijs en Vorming - M. Vanderpoorten (VIONA); ESF-Comité van Toezicht doelstelling 4 Vlaanderen	Miet Lamberts en Luc Sels	01/10/1999 tot 31/12/2000
Geert Van Hootegem Johan Dejonckheere	Globalisation, division of labour and training needs from a company view	Cedefop - European Centre for the Development of Vocational Training		08/03/1999 tot 30/04/1999
Geert Van Hootegem Tom Vander Steene	De impact van de institutionele context op de flexibiliteitspolitiek van industriële en dienstverlenende bedrijven en de gevolgen voor de kwaliteit van de organisatie en de kwaliteit van de arbeid	Vlaams Minister van Leefmilieu en Tewerkstelling - T. Kelchtermans (VIONA)	Hans De Witte (Dep. Psychologie K.U.Leuven), Luc Sels (Dep. ETEW K.U.Leuven)	01/12/1998 tot 30/11/2000

Projectleiding Onderzoekers	Titel	Opdrachtgever	Samenwerking	Looptijd
Geert Van Hootegem Rik Huys	Work process knowledge in technological and organisational development	Europese Commissie - DG XII (subcontract van Victoria University of Manchester)	instituten vanuit VK, Portugal, Denemarken, Italië, Duitsland, Frankrijk, Finland, Zweden	01/01/1998 tot 31/12/1999
Geert Van Hootegem Johan Dejonckheere	Information society, work and the generation of new forms of social exclusion	Europese Commissie - DG XII	WRC (Finland), IRES (Italy), IES (UK), FCT-UNL (Portugal), Forba (Austria), Nexus (Ireland), ITAS (Germany)	01/01/1998 tot 31/12/2000
Geert Van Hootegem Ignace Pollet	De kwantiteit en kwaliteit van de arbeid bij laaggeschoolden in de dienstensector	Vlaams Minister van Leefmilieu en Tewerkstelling - T. Kelchtermans (VIONA)	Hans De Witte (sector arbeid)	01/01/1998 tot 30/09/1999
Hans Bruyninckx	Conferentie duurzame ontwikkeling in stedelijk milieu	VLIR-ABOS	Center for Sustainable Cities	

Andere relevante projecten waarin onderzoekspartners betrokken zijn

Projectleiding Onderzoekers	Titel	Opdrachtgever	Samenwerking / projectpartners	Looptijd
Prof. Leo Sleuwaegen Dr. Koen Debacker Isabelle Vandenbroere Kristien Coucke	VIO (Vlaamse Industriële Ondernemingsdatabank)	Vlaamse overheid		01/09/2001 tot 31/12/2006
Prof. Geert Van Hoote- gem Prof. Luc Sels Dr. Bart Cambre Stijn Gryp Anne Delarue Johan Maes	PASO Flanders (Panel Survey of Organisations)	Vlaamse overheid	VIONA HIVA	01/09/2001 tot 30/12/2006
Prof. Bart Clarysse Ans Heirman Ann Van Ganse Frederik Deceunynck Mirjam Knockaert Johan Bruneel Vicky Van Den Haute Kristien De Wolf	HITO Databank (Highly Innovative or Technology related Organisations)	Vlaamse overheid		01/09/2001 tot 30/12/2006
Prof. Ir. Sophie Manigart Prof. H. Crijns Dirk Declercq Mathieu De Sutter David Zegers	GEM Databank (Global Entrepreneurship Monitor)	Vlaamse overheid		01/09/2001 tot 30/12/2006
Prof. G. Van Hootegem Prof. L. Sels Dr. B. Cambre Johan Maes Stijn Gryp	START: onderzoek naar de Startende ondernemingen in Vlaanderen	Vlaamse overheid		2003-2004
Prof. Ir. Sophie Manigart Prof. H. Ooghe Nick Waeyaert	Succesvolle versus falende ondernemingen: Oorzaken van falingen	Vlaamse overheid		01/09/2001 tot 30/12/2006
Prof. G. Van Hootegem Prof. René Bouwen Prof. T. Tailleu Dr. B. Van Looy Dries Faems	Interorganisatorische innovatieprocessen: gevalsstudies	Vlaamse overheid		

Projectleiding Onderzoekers	Titel	Opdrachtgever	Samenwerking / projectpartners	Looptijd
Prof. Ir. S. Manigart	De impact van risicokapitaal op financierings-en investeringsbeslissingen	Vlaamse overheid		
Prof. L. Sleuwaegen Dr. K. De Backer Isabelle Vandenbroere Kristien Coucke	De kenniseconomie, ondernemerschap en industriële dynamiek	Vlaamse overheid		
Prof. B. Clarysse Prof. S. Muylle Frederike Deceunynck	Technologische innovatie en eBusiness	Vlaamse overheid		
Prof. G. Van Hootegem Prof. L. Sels Johan Maes Marijke Verbruggen	Intrapreneurship, innovatie en de kennisorganisatie	Vlaamse overheid		
Prof. G. Van Hootegem Sim d'Hertefelt	Databankinventarisatie	Vlaamse overheid		2002-2003
Prof. S. Manigart Dr. D. De Clercq Mathieu De Sutter	Relatie tussen ondernemerschap en economische groei	Vlaamse overheid		2002-2003
Prof. B. Clarysse Ans Heirman Mirjam Knockaert	SBIC: Europese benchmarkstudie ter identificatie van overheidsinitiatieven bij startende ondernemingen.	Vlaamse overheid		2002-2003
Prof. B. Clarysse Ann Van Ganse Ans Heirman Kristien De Wolf	Evaluatie van het clusterbeleid	Vlaamse overheid		2003
Prof. B. Clarysse Johan Albrecht	Europese benchmarkstudie biotech innovatiesystemen	Vlaamse overheid		2003
Prof. L. Sels Joost Bollens Helena Op Den Kamp Steven Vos	Evaluatie van de opleidingscheques	Vlaamse overheid	HIVA	2003
Prof. H. Van den Broeck Annick Willem	Entrepreneurial learning	Vlaamse overheid		2003
Prof. L. Sleuwaegen Dr. K. De Backer Kristien Coucke Isabelle Devoldere Isabelle Vandenbroere	Internationalisatiestrategieën in Vlaamse ondernemingen	Vlaamse overheid		2003
Prof. A. Vereecke	Decision making in FDI: waarom investeringsprojecten niet naar Vlaanderen kwamen	Vlaamse overheid	Vlaams Instituut voor de Logistiek	2003

Projectleiding Onderzoekers	Titel	Opdrachtgever	Samenwerking / projectpartners	Looptijd
Prof. L. Sleuwaeghe Dr. K. De Backer Kristien Coucke Isabelle Devoldere	Economische barometer: tweejaarlijkse evaluatie van de competitiviteit van de Vlaamse economie	Vlaamse overheid		2002-2003