Promotion and support of innovation infrastructure: examples from the City of Hamburg

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Abstract: This paper presents the works of TuTech Innovation in Hamburg, a leading European technology transfer agency. It also outlines two pilot projects aimed at promoting innovation in the City of Hamburg. The approach and methods used in these projects as well as their scope, may allow them to be implemented in other regions in central and eastern European countries. The practical nature of these projects, along with their strong innovation elements, make them replicable across Europe, thus supporting current attempts to link the provision of innovation infrastructure with economic and scientific development.

Keywords: innovation; support; Hamburg; technology transfer; infrastructure.

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1 Introduction

Technology transfer is a vital area in any region's attempt to promote its economic growth. This is particularly so in large European cities, where there are various sources of technology (e.g. research institutes and universities) and a great scientific and financial potential which, is duly tapped, may yield substantial benefits.

International experiences taken from successful cities such as London, Stockholm or Amsterdam have shown that, by linking up the know-how and expertise available at universities, companies and the public sector, it is possible to start joint ventures of substantial economic and scientific value. Moreover, projects originated by means of

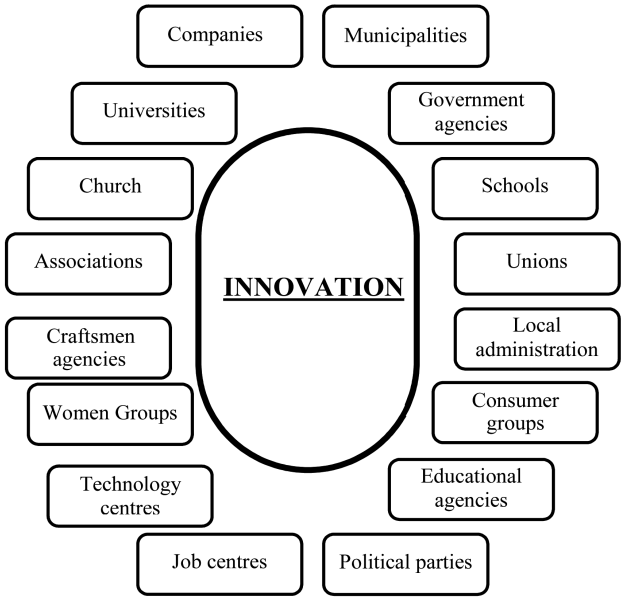
technology transfer schemes are useful not only in financial terms, but also in terms of establishing long-term links, catalysing synergies and in preventing the risks of duplications.

But the technology transfer is not an easy business. To succeed, the technology transfer needs to fulfil a set of preconditions. Some of them are:

1 the existence of a core set of partners within the context of which technology transfer can occur
2 the willingness of all partners to cooperate
3 the existence of a supporting infrastructure in the context of which technology transfer can be coordinated and effectively take place
4 the provision of political and economic support to technology transfer processes and
5 the possibilities of continuation.

Moreover, it is important to consider, in any innovation context, the role of the key stakeholders as shown in Figure 1.

Figure 1 Some key actors in an innovation context

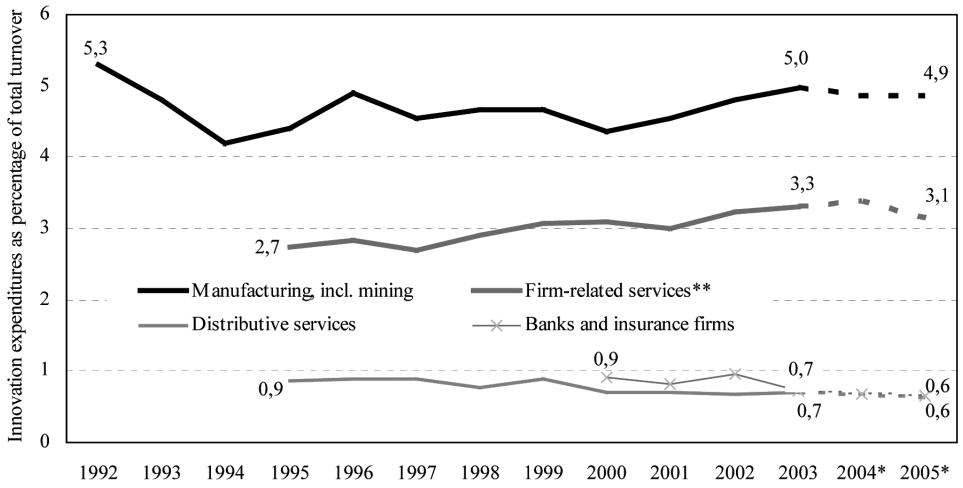


Unfortunately, many attempts to promote the technology transfer in European regions (see Leal Filho, 2002, 2004; Leal Filho and Gramatikov, 2005) and cities have largely failed due to the lack of one or more of the above elements. This is regrettable since after each setback, efforts to reestablish a 'culture of technology transfer' become more difficult. In addition, in larger cities where various technology transfer structures exist, efforts tend to be focused in some areas – to the disadvantage of others – and tend to be too thinly spread. As a result, there is often a sense of despair as the relevant stakeholders spend a great deal of time 'cooking their own soup' and in general the city-character of the technology transfer tends not to be established.

An important element that is supported by the technology transfer is innovation. The need for regional innovation systems has been outlined many times before (e.g. Braczyk and Heidenreich, 1998; Cooke et al., 2000) and has the relevance of innovation at the regional level (Edquist, 1997).

Similar to what happens in many European countries, innovation in Germany is not even, that is, the development of innovation over the years and distributed throughout various fields is differentiated. As demonstrated by the so-called Mannheim Innovation Panel (ZEW, 2002), described in Figure 2, innovation intensity in Germany has had many ups and downs. The aim should be to have an innovation trend towards stabilisation (or even growth), but this cannot be achieved without intensive (and more systematic) efforts.

Figure 2 Innovation intensity in Germany, 1992–2005



Source: ZEW (2002): Mannheim Innovation Panel – calculations by ZEW.

The situation in Germany is consistent with that of Nelson and Rosenberg (1993) outlined, namely the need to consider the intertwining of technical innovation and national innovation systems.

Against this background, it can be seen that, at least in some countries and in some contexts, much can be gained by having a central institution, which oversees the technology transfer process and ensure its long-term continuity. The subsequent parts of this paper will introduce one of such institutions and describe both pilot project aimed at promoting innovation in a city in Germany, namely the Free and Hanseatic City of Hamburg, by a 'bottom-up' process and a European project with a strong local component.

2 An example from TuTech Innovation

TuTech Innovation GmbH was founded in 1992 (under the title of TUHH Technology GmbH, referring to its role of the technology transfer agency of the Technical University of Hamburg–Harburg (TUHH)) to provide professionally run project, business and

contract management and technology transfer services on behalf of the TUHH. The TUHH is a young university (founded in 1978) and highly regarded in Germany for the inter-disciplinary and industrial orientation of its research, gaining respect for being very successful in acting as an interface between the commercial world and research.

Until recently, TuTech was one of the set of institutions concerned with questions related to the technology transfer in Hamburg, the others being the TBZ (the Hamburg centre for technology advice) and Channel Business Services (a public-owned company established to guide start-up companies). Various problems deriving from items such as political changes, financial constraints and structural changes have led to a process of consolidation of the existing structures and a decision was made to congregate them under one roof. As a result, in the summer of 2004, a merger of these three institutions took place and TuTech Innovation, as a new institution, was created, drawing from the personnel and know-how of all the three organisations. Under the current format, TuTech Innovation is partly owned by the TUHH (51%) and by the Free and Hanseatic City of Hamburg (49%), being supervised by a Board consisting of representatives from the TUHH and from the Hamburg Ministries of Science and Economics.

TuTech Innovation fuses the link between the local business community, industry and academia, acting as a one-stop-shop for the technology transfer in Hamburg. The key areas of activity within TuTech Innovation include:

- *Technology and technology transfer consulting*: a team of consultants with both industrial and research experience provide a full range of technology, innovation and contract research services in domains including IT, bio- and environmental technology, microsystems, energy and production technology. TuTech is a partner of the North German Innovation Relay Centre supported by the EC to support trans-national technology transfer.
- *Project management*: TuTech staff are experienced R&D managers especially for public-funded technology and research partnership projects, which call for special inter-disciplinary and inter-cultural management skills. TuTech is well experienced in all financial matters concerning such projects.
- *EU unit*: TuTech provides information and active management support for all aspects of the EU programmes from proposal writing and contract negotiation to project management and exploitation. These services are provided for the TUHH, but are also available to outside organisations. The staff participates actively in policy formation and are frequently engaged as experts for the EC. The current project portfolio is in excess of 30 projects.
- *Seminar and training services*: TuTech has a unit specialising in the logistics and management required for these services as well as facilities in-house for these seminars. Seminars are offered on behalf of the university and external organisations on a wide range of R&D and management-related topics.
- *Exhibitions and trade fairs organisation*: TuTech has a team of exhibition organisers who provide support services for technology marketing for the TUHH and regionally based companies and institutions. TuTech manages the North German Regional Stand at the Hanover Fair and regularly participates in the local events promoting innovation.

- *Programme manager Hamburg existenzprogramm*: on behalf of the Hamburg Ministry for Economic Affairs, TuTech has initiated and runs a Hamburg Start-Up programme, which supports new business formation with training courses and consultancy.

Currently, the TuTech has a full-time staff of around 50 and over 300 project-related staff. Among the schemes it currently runs, there are many European and local projects. Among them, the project 'Hamburg: City of Innovation' and the 'European Learning Network' will be described in the subsequent parts of this paper.

3 The project 'Hamburg: City of Innovation'

3.1 The rationale of the project

It is well known that innovation is an important factor for all countries in connection with industrial competition. But if concrete results that have business relevance and are desirable in social terms are to be achieved, it is necessary to support innovation, to apply the findings from research and foundation (or support the set-up) of new innovative companies.

As shown by a study of innovation policies recently published under the title 'Innovation management and the knowledge-driven economy'[1] by the Directorate-General for Companies of the EU Commission, the management methods that are currently available for the support of innovation are not always effective enough. One of the reasons for this is to be seen in the fact that actual or potential obstacles are not fully taken into account – that is, that in certain quarters people are keen to encourage the innovation but are unaware where its weaknesses (and strengths) are to be found.

Innovation, which for the purposes of the project 'Hamburg: City of Innovation' may be defined as "measures involving new procedures, methods or processes which result in progress", does not just consist of high-tech. On the contrary, innovation is just as likely to be brought about as a result of new applications or new activities. Innovation is needed in all kinds of companies – most of all in small and traditional firms. Innovation is everything that helps a company to adapt to an environment that itself is changing all the time.

But the innovation does not just mean creating something new – it can also consist of procedures, methods or approaches that may be able to result in the speeding up of product cycles, as well as leading to specialisation, enhanced flexibility or even diversification within a company. Take an example: for a local Hamburg company, for instance, which specialises in the supply of labs with equipment such as pipettes, it would be an innovative approach to purchase the pipettes – which make a considerable contribution to its turnover – from recycled glass. This would cut costs without impairing quality and adding a contribution towards efforts in waste prevention. Approaches like this could benefit the Hamburg firms, but as the awareness of innovation is still lacking, they fail to be adopted. The project 'Hamburg: City of Innovation' aims to counteract this trend.

Hamburg has, as many other cities with a similar size and well served by various sorts of scientific institutions and companies, an outstanding potential for innovation. But there are a few problems as well, which can only be put right if they are systematically

identified and worked on. There are also questions that up to the present time have not been answered in full, such as for instance:

(a) Questions relating to limiting conditions based on infrastructure:

- i What is the status of innovation in Hamburg today?
- ii What innovative approaches are to be found today in the city and what approaches could still be created?
- iii What problems present obstacles to innovation in the districts of Hamburg?
- iv What can be done to tackle the problems on site and to strengthen the positive aspects of the districts (e.g. availability of premises, research institutes, transport connections, etc.)?

(b) Questions relating to job market policies:

- v How can innovation be used as an additional factor to create more jobs in Hamburg?
- vi Is there a need of qualified specialists in the field of innovation and if so, are interventions in this quarter called for?
- vii What approaches should be adopted by the city with a view to helping local firms to retain or safeguard their share of the market in innovative fields?
- viii How can we make Hamburg a 'City of Innovation', where incentives for innovation are created even at the district level and minorities or immigrants in technical professions can play an active role?

The project 'Hamburg: City of Innovation' consists of a study, carried out under the auspices of the European Social Funds (Political Sector C), which aims to investigate the opportunities and prospects connected with innovation and their implications for science from the point of view of industry and employment policy in the seven districts of Hamburg. It will establish what potential for innovation is to be found in Hamburg and what obstacles stand in the way of innovation and innovative firms and how these can be dealt with – that is, how technology transfer and innovation can be promoted and encouraged at the local level. The project will also refer to examples drawn from successful locations such as London, Amsterdam and Milan, in the hope that these may be useful for similar approaches to be made in Hamburg.

3.2 Goals of this project

This project is aimed at reaching the three principal goals:

- Goal 1 is a stocktaking of the existing or potential capacities and opportunities connected with the innovation in Hamburg and in its districts. This will be from the point of view of employment policies above all, but will also take technological and infrastructure-related aspects into account. (For instance – where is potential located? What are the special features of the districts? Where would new business developments be thematically appropriate and where might it be possible to create new jobs?)

- Goal 2 is the identification of the existing problems that stand in the way of the development of innovation in the districts of Hamburg.
- Goal 3 is the drafting of proposals – for each district – with a view to optimising their potential in each case and leading to the preparation of a holistic *innovation strategy for Hamburg*.

This project and its findings should result in making Hamburg more attractive as a place of innovation. Existing opportunities of creating or maintaining jobs in innovative industrial sectors should be recognised and taken note of that.

The relevance of the project for the city lies among other things in the fact that hitherto no interventions in Hamburg have had the aim of viewing innovation as an instrument for promoting employment, in combination with industrial growth and scientific support. One result of this neglect is that – by contrast with comparable cities such as Barcelona, Manchester or Milan, where a 'culture of innovation' is plainly recognisable and many jobs have been created in innovative areas – Hamburg's track record in this respect leaves room for improvement. Things cannot be left as they are, as an intervention in this area is urgently required.

The project 'Hamburg: City of Innovation' therefore comprises the following activities:

- a study and local analysis, from the scientific, industrial and job market policy points of view, of the seven districts, supplemented with interviews with senior officials and the 'key figures' of each district
- the conducting of dialogues at the district level with representatives of the municipal administration and employment offices (Federal Employment Agency), with a view to gathering information about current requirements and plans. This will also involve the determination of the need for qualified specialists in the field of innovation, in the context of which the question will be considered to what extent further approaches are called for in this area
- the drawing up of an innovation plan for each individual district. This will show the strengths of each and submit proposals for measures, which might be adopted to enhance the attractiveness of the districts
- the holding of a conference on innovation, at which the findings of the study will be presented.

The main result of the project will be an innovation strategy for Hamburg's districts–and so for Hamburg as a whole – with the help of which the use of innovation as an instrument of revitalisation, encouraging employment, scientific development and industrial growth in the Free and Hanseatic City of Hamburg, may be optimised.

The strategy of the project will include technological, industrial and employment policy approaches. In addition, measures will be proposed that take into account the involvement of citizens of German origin and of citizens of foreign extraction (immigrants), in order both to support the foundation of new companies and to safeguard and maintain existing jobs. The ambitiously conceived target of this project and of the measures it is designed to stimulate, is to improve Hamburg's position by making it one of the prime places for innovation in Europe. The term '*Hamburg: City of Innovation*' is not just the title of a project, but also the long-term goal.

3.3 The methods used

The project first of all entails a survey carried out in the municipal administration and employment offices, further taking into account various players involved in innovation management (e.g. companies, consultants, colleges and other relevant organisations) in the seven districts that provide support for companies. It is being carried out over the course of the year 2006 that is over a period of 12 months.

From the methodical point of view, the project will be carried out in four phases.

3.3.1 Phase 1: evaluation of existing documents, studies and experiences

As a first step, to begin with materials relating to the theme of innovation as a guiding ideal for municipal administration, paying particular attention to the modernisation of administration and employment in the districts, will be gathered. These materials will be as complete as possible. As up to the present time there are no essays, papers, documents or research findings relating to the theme of innovation on the local level that address district issues in a concrete and unambiguous way, a number of thematic complexes and approaches will be identified that are closely related to the problems in question and in connection with which more in-depth materials may be assembled.

3.3.2 Phase 2: empirical survey based on questionnaires and assessment of results

As a second step, using both qualitative and quantitative methods, the structures and procedures of the districts will be investigated with a view to finding innovative ideas and processes and the attitudes and experiences of local employees will be analysed. Interviews will be conducted both with regional managers and senior staff, as well as with representatives of the employment offices.

Individuals, companies and other institutions that have a definite relation to the theme of innovation, above all those currently situated in the midst of a modernisation process, will be interviewed as well.

3.3.3 Phase 3: ideas forum and dialogues with experts

Discussion groups involving employees in municipal administration and experts from scientific and practical fields will serve for the further development and scrutiny of the results emerging from the work of the first two steps. Moreover, these talks will have the character of an ‘ideas forum’, in the context of which the districts will be able to discuss their own ideas and conceptions of the future of innovation in their areas. It is hoped that it will be possible to speak quite openly about obstacles and opportunities at the district level and to list concrete measures that may or should be taken to encourage innovation in the districts.

In this context of phase 3, a determination of the need of qualified specialists in the field of innovation will also be made and the question will be considered to what extent further approaches are called for in this connection.

3.3.4 Phase 4: closing phase

In the closing phase, all the results will be summarised and innovation plans worked out for each individual district. The results will also be presented in the context of a conference (Innovation Day) in November 2006 and further measures that the districts might like to adopt could be made public on the same occasion.

At the end of this project, a final report will be drawn up, which will be made available both in book form and online.

In all districts the specifically feminist issues – such as the employment of women in innovative firms, representativeness with reference to innovative approaches in companies and in the districts, and also the involvement of women in the cluster formation that is aimed for – will be raised and taken into account. The participation of women in the surveys is an essential part of this survey. Results that are of particular significance for women, such as the proportion of available part-time positions or the question of wage differences, will be specially elucidated. The aim is to create equality of opportunity and to do away with obstacles.

3.4 Costs and benefits of the project

In the context of the 'Hamburg: City of Innovation', a list of priorities with possible fields for each district, taking their limitations and potential into account, will be drawn up (Table 1). This should give rise, as spontaneously as possible, to cluster ideas. It is expected that this project will lead to a better understanding with reference to the relevant aspects and required steps, which may be capable of promoting the development of the city in the direction of its becoming a competitive, creative and innovation friendly place.

Table 1 Some of the factors that will be determined in analysing the potential of the individual districts

Element	*Object*
Availability of space/premises for firms in the district	Space for the development of new industrial facilities
Access to the districts	Accessibility from various directions
Presence of innovative firms in the districts	Analysis of thematic networks in districts and the local area
General consultancy in the districts	Consultancy for specific groups
Information for companies/company founders	Acquisition of new firms, for example, through immigrants
Thematic fields of the firms in the districts	Presence of relevant expertise in innovative sectors
Degree and range of joblessness in the districts	Local availability of qualified specialists

The cost-benefit ratio of the project has been precisely estimated. It was concluded that the fact that the Hanseatic City hitherto has not had any kind of holistic strategy for innovation has hindered it in its endeavours to optimise present and future investments, and research and development approaches. The project 'Hamburg: City of Innovation' will remedy this serious defect and provide a listing of middle- and long-term measures. The sums required for the execution of this study are like the proverbial water drop on a hot stone, when we consider how great the benefits will be to the city generally and its districts in particular, both in terms of job market policy and also in scientific aspects and

with reference to the city's European image (Hamburg as a City of Innovation). By way of comparison, the city of London today invests over 12 million euros a year, through the Greater London Enterprise (GLE) and the London Development Agency (LDA), in measures designed to encourage innovation, such as specialist seminars, corporate meetings and research, also in the disadvantaged districts such as Ealing and Hackney.

With reference to the consequences of the *non-execution* of this project, we may mention the following elements:

- the city would still not have any strategy in place and innovation will not be deliberately targeted, but only pursued as it were by chance
- the districts would continue to 'plan in the dark', without having any basis that permits them to pursue a deliberate innovation strategy
- the opportunities and associated potential available in Hamburg as a location for new firms and cluster formation would continue to be exploited only to a relatively modest degree and
- opportunities for immigrants and other minorities would remain unrecognised.

It is therefore clearly seen that such a project in fully in line with the interests of the city and that, similar to what currently happens to other cities that have overlooked the potentials of innovation, it could fail to take advantage of the opportunities and possibilities connected with innovation without it.

After the conclusion of the project 'Hamburg: City of Innovation', the districts will have a basis that permits them to harness their potential and make use of their opportunities in the field of innovation and to support them in dealing with existing competitive disadvantages. It is also hoped that the project will provide an impulse for further campaigns and trigger investments.

In addition to this, the project 'Hamburg: City of Innovation' will also have reference to the theme of sustainability in Hamburg, involving the simultaneous and equally important consideration of economic, social and ecological concerns connected with decisions that have both immediate and long-term effects.

The questionnaires and interviews are designed to show what measures and steps are required to improve the position of the districts and Hamburg as a whole in the field of innovation at the regional, national and international levels. This study will also offer benefits in connection with the personal working situation and attitude of employees and their perception of the innovation process.

With a view to heightening the profile of Hamburg as a place of innovation and stimulating new industrial developments from within Germany and abroad and creating new jobs, selections from the final report of the project will be translated into English and marketed through the CORDIS programme of the European Commission.

4 The project 'European Learning Network' in Hamburg

4.1 Background of the project

As outlined by Leal Filho (2005), the project 'European Learning Network' (L-NET) is a further example of an initiative where the principles of innovation may be put into practice. L-NET is an Interreg IIIB project aimed at setting up a learning network on

enterprise in deprived urban areas. The rationale behind the project is that while the encouragement of enterprise has emerged as a key element of local economic development policies, its potential in disadvantaged neighbourhoods is still poorly recognised and exploited. The objective of L-NET is thus to identify best practice in enterprise promotion as a tool to generate wealth and employment in disadvantaged neighbourhoods and to use this expertise for the development of practical toolkits and how-to guides to support policymakers and economic development practitioners and enhance the effectiveness of future interventions in these areas. L-NET focuses on three themes:

- the 'enterprise gap' and entrepreneurship
- innovation and innovative enterprises and
- social enterprise.

All along, the project has been trying to ensure the transferability and implementation of successful enterprise and innovation interventions to other cities, through the development of a rigorous best practice analysis framework.

From an administrative perspective, L-NET is coordinated by the GLE, in partnership with the LDA, in conjunction with the cities of Amsterdam, Hamburg, Milan and Prague. The project partners are:

1 *Greater London Enterprise, London, UK*: GLE has a track record in UK and EU urban regeneration research and programme management. GLE is the project's management coordination and research policy development authority. It brings its expertise in EU funding project management, as well as its expertise in urban regeneration issues, to the service of the project and of the partnership.

2 *London Development Agency, London, UK*: LDA is the London Mayor's agency for economic development, business and employment. The LDA adds value through exposing London practitioners to the experiences and achievements of other cities in urban regeneration. Its goal is to transfer learning to complement several core programmes and projects (LDA2 programme to fund locally led training and business development; LDA work with Social Enterprise London; Objective 2 Access to Finance Programme where the LDA works in partnership with Business Link for London and Innovation London).

3 *Technology Centre of the Academy of Sciences of the Czech Republic, Prague, Czech Republic*: the Prague Technology Centre has a wealth of experience in Innovation Regional Strategy as well as in EU programmes and networks. It puts this expertise to the service of the project. Thanks to L-NET, Prague Technology Centre will strengthen its capacity to prepare the future Structural Funds projects in the field of innovation and urban regeneration in Prague.

4 *TuTech Innovation, Hamburg, Germany*: as Hamburg's prime institution for innovation and economic growth, TuTech sees L-NET as an opportunity to further the economic growth of deprived areas in Hamburg. In doing so, TuTech uses its links with the government and the local business community

and academia. As special feature of TuTech's input to this project is the incorporation of the Hamburg Channel e.V., a foundation involving investors, city officials and innovative firms in the poor district of Hamburg–Harburg in the fields of IT, environmental technology, biotechnology and medicine technology.

5 *City of Amsterdam, The Netherlands*: the mission of the Economic Development Department of the City of Amsterdam is to strengthen the economic structure of the city. This department has led some experiments in deprived city districts on the stimulation of ICT projects in local SMEs (experiences in Amsterdam with e-biz platforms and Cyburg); exchanges of knowledge institutes and the business community and inward investments; establishment of incubators, especially in the fields of life sciences, ICT and sustainable energy.

6 *North Milan Development Agency, Italy*: the ASNM was founded to face the challenges of urban reconversion and industrial restructuring, following the closure of the Falk industries and of other companies in the area. Since its very creation, the ASNM's primary focus has been on urban regeneration and development together with industrial reconversion. ASNM contributes to this project by providing its experience in urban regeneration, project management and know-how and will be hosting a thematic workshop. Thanks to this European cooperation, ASNM will benefit from the partners' experience and know-how in urban regeneration.

7 *Milan Province, Italy*: the Province of Milan has a tradition of expertise in EU programme management and extensive know-how in urban regeneration and development. This is in particular due to the fact that Milan is a big metropolitan city with multiple development problems and a high industrialisation rate. Consequently, the Province has already experienced threats and challenges in this field. It contributes to the project with its expertise in EU funding project management, including project monitoring and financial management, as well as expertise in urban regeneration issues.

As can be seen from the overview of the partnerships, there is one innovation component already embedded into it, namely the cross-sectoral relationship between organisations working in different fields and at various levels.

4.2 The project's structure

The project operates from July 2004 to February 2007 and is structured around a series of meetings, practitioners' workshops and city study visits. These are hosted by the partner cities and each focus on one of the three themes highlighted above through case study analyses, practitioners' workshops and the review of individual projects on the ground. The themes were agreed by partners as encompassing an array of approaches to enterprise. These themes are to be supported by a review of their impacts and requirements in terms of skills and knowledge base, business support, investment and their impact on the local governance structures.

These activities will result in the development of practical tools to support the promotion of enterprise and innovation in deprived urban areas, including toolkits and how-to guides.

Ultimately, L-NET will result in the development of a common approach to the realisation of the economic and social potential of deprived urban areas as core strategic locations for enterprise and innovation promotion. A special feature of L-NET is the fact that it fosters among other things innovation at the local level, with a special emphasis on deprived areas, that is, areas which are economically weak and hence seen as not suitable for innovation. This fact poses a challenge to the project team, which is trying to show that innovation is possible despite unfavourable conditions.

Even though it has not been long in existence, the project has already achieved a number of results. Following the project meetings in London, Milan, Prague and Hamburg, a toolkit has been drafted and some cities have prepared:

1 city profiles

2 a glossary

3 initiation seminars

4 dialogue reports

5 case studies

6 thematic workshops and

7 study visits.

Many of these materials, such as the city profiles and case studies, are already being used as reference sources for activities in the fields of social enterprises, entrepreneurship and innovation.

5 Conclusions

This paper has outlined the advantages of providing a systematic support to innovation and has illustrated the benefits that can be gained by organising and consolidating innovation and the technology transfer initiatives in the European cities. The examples gathered from the two projects here described illustrate the two main trends. The first is the need to have insights into the innovation potentials (and constraints) in a given city. The second is the need to seek local solutions for local problems, but from an international perspective. It is believed that, by means of a combined approach, a long-term contribution to the attempts to promote the technology transfer and innovation at a city level will be provided.

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Note

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