The COMPETE Network: Final Report

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COMPETE set out to learn what makes European cities so successful. The publication of the report is an important milestone in evidencing the progress made so far. Michael Parkinson’s report last year on the State of the Cities showed clearly that our cities were back. They had turned the corner from economic stagnation and population loss.

It is important to identify some common principles for strengthening the competitiveness of our cities and to look at cities in an integrated way. I believe we can achieve much through partnership and that is at the heart of our devolution agenda. But again there is much to learn from European partners.

That certainly was part of the aim with the COMPETE project. However, I know it has highlighted important learning, not just for our English core cities but also for everyone involved. It has been a groundbreaking and pioneering piece of work by all the participants.

The task now is to use the lessons we have learnt of what works, and what doesn’t work, and then translate that knowledge into local circumstances.

Although the cultures and histories of our great cities may be different, they are all facing very similar challenges and issues in today’s world.

Each must compete in the internal domestic and European market but, even more important for Europe’s long-term prosperity, they must compete in global markets. It is in all our interests to understand those global markets and the nature of global competition.

We need to increase the global opportunities open to our cities and broaden their horizons, rather than compete between ourselves in a confined market. This way each city has a better prospect of fulfilling its potential as an economic driver for the region and contributor to the national and Europe-wide picture.

Within Government, we have been working closely with our core cities, looking at what is needed to overcome the barriers to further progress and to meet the challenges. A key theme has been forming resilient and productive partnerships. Indeed this has been an important part of our devolution agenda and the major changes we are making in governance and policy at the local level.

We are looking to widen the network of partners with an interest and influence in the area, to well beyond the usual public sector agencies. This is one way in which our cities can learn much from the approach of other places taking part in the COMPETE project.

The challenge now is to make good use of the excellent work done through the COMPETE project so our cities are in better shape to compete on the world stage.

I hope the momentum built up by the project will not be lost. There is a huge amount to be gained from maintaining contacts and continuing to learn from each other.

Nothing stays the same and the world will not stand still. New challenges will emerge and different issues evolve. We will need to make the most of every advantage we have, in order to keep Europe in the premier league.

John Healey MP
Minister for Local Government
This Ministerial address was given by Phil Woolas MP, then Minister for Local Government and Community Cohesion to the Final Conference of the COMPETE project where the initial results of this report were presented in June 2007.

First let me welcome you all to London. Particularly everyone from the six continental European cities that have been part of the COMPETE project from the beginning – Barcelona, Dortmund, Helsinki, Lyon, Munich and Rotterdam. And special thanks, of course, go to Sheffield who have led the network so ably on behalf of our Core Cities and the other partners. This conference and the publication of the report will be an important milestone on your three-year pioneering journey. I believe this was intended to be the end of the road but one thing is quite clear – nothing stands still. The report is a snapshot in time. All the many complex factors that contribute to the life and the success of a city are constantly changing.

I know many of you have found the project both interesting and rewarding. The meetings have been a buzz of constructive discussion and shared ideas. People from each city have learnt something new from the experience of others. We set out to learn what made your European cities so successful – but it has not turned out to be, by any means, a one-way street. It would be a shame not to continue in some way and build on this creative, co-operative momentum as things move on and new challenges arise.

However, today's session is more focused on our core cities learning from your experience in other parts of Europe. I am looking forward to hearing about your top tips for us. We are making progress. Michael Parkinson's report last year on the State of the Cities showed clearly that our cities were back. Enterprise and employment rates are going up. There are positive signs that they are moving towards a knowledge-based economy. And we are attracting more foreign investment. But there is still some way to go and there are significant gaps between cities in different parts of the country. I am not sure we are yet in the premier league of European cities and that is where we must be to compete in the increasingly global economy.

We are here in one of the great 19th century buildings of Whitehall designed by Sir George Gilbert Scott – which incidentally is the product of a great 'battle of styles', all originating from mainland Europe. We have a long history of picking up and building on the best of what you produce! That certainly was part of our aim with the COMPETE project. However, I know it has proved to be an important learning experience not just for our English core cities but for everyone involved. And it has certainly been a ground-breaking and pioneering piece of work by all the participants.

Although we are here in Whitehall, at the very heart of national government, that is not the focus – having said that we have nonetheless been closely involved and pleased to support the Project. But it is much more about regional and local government, and looking at the ingredients which – individually and collectively – make cities successful.

The trick now is to use the lessons we have learnt of what works, and what doesn’t work, and then translate that knowledge into local circumstances. Although the cultures and histories of our great cities may be different, they are all facing very similar challenges and issues in today’s world. Each must compete in the internal market but, even more important for Europe’s long-term prosperity, they must compete in global markets. It is in all our interests to understand those global markets and the nature of global competition. There is, for example, the emerging economic powerhouse of China and the enormous potential, beginning to be realised, of South Asia.
So this is about improving Europe’s economic engine – adding more cylinders and tuning it up. We need to increase the global opportunities open to our cities and broaden their horizons, rather than compete between ourselves in a confined market. This way each city has a better prospect of fulfilling its potential as an economic driver for the region and contributor to the national and Europe-wide picture.

There is much to gain from collaborating as well as competing. And a good starting point is to recognise both our strengths and our weaknesses. On the European stage there is general agreement that we are best placed to compete globally with knowledge based economies. That is our collective strength. It has become increasingly difficult to keep manufacturing costs down to competitive levels in lower-tech industries. However the curious anomaly is that in a more knowledge-based economy, where geographic factors are not so vital, cities are becoming more important, not less. This is because employing the right people with the right skills in the right places is absolutely vital.

So our cities need to make sure they are able to attract the people they need. That takes more than just a good business park. They need to offer a better quality of life. People want to live in vibrant cities that offer a lively culture and leisure scene, good education with facilities for children and families, a range of shops and retail outlets, decent housing, and so on. Looking at the ‘whole life’ experience in an integrated way has been part of our approach to revitalising our cities and the communities within them. We also need to bring the benefits of the increasing prosperity and growth of our core cities both to the poorest neighbourhoods and smaller towns and cities.

Some of our cities are making great progress. Let me say a few words about two – Manchester and Liverpool – to illustrate the points I have been making. Manchester is a city I know well – I went to university there and now, as a Member of Parliament, I represent Oldham which is close by and part of the Greater Manchester region. Manchester suffered a massive industrial decline in the 1980s and early 1990s which seemed to be terminal. The city centre was dying and was further shattered by a massive bomb in 1996. Ten years on it is a dynamic ‘Science City’ with a cultural economy worth more than £1 billion a year and it is now considered to be one of the 10 best European cities to do business in. The Knowledge Capital initiative is driving innovation and economic transformation, drawing together a highly competitive combination of knowledge assets from across the city region. This includes a partnership of 10 local authorities – including Oldham – four universities, the strategic health authority, other key public agencies and the leaders of the regional business sector. The city centre is brimming with people, places to go and things to do, both during the day and the night. Having said that, the city is still facing considerable challenges in balancing increased economic competitiveness with greater social cohesion. It is proving difficult to make sure that the most deprived parts of the city are benefiting fully from the increased prosperity that is evident in the other parts.

In Liverpool too the renaissance encompasses the whole city but has a particular focus on the city centre. Being chosen as the European Capital of Culture for 2008 and achieving World Heritage Site status for the waterfront area, have both helped to accelerate the city’s transformation. It is now a national and international destination centre, rather than a departure point. The Paradise Street development is one of Europe’s largest city centre regeneration schemes. The developers, Grosvenor, are investing around £800 million to create over one million square feet – that’s around 100,000 square metres – of new city centre retail space. The population in the city centre is forecast to rise by a factor of ten in the twenty years up to 2010. But, like Manchester, it also faces major challenges in spreading the benefits to the more deprived parts of the city, especially the outer council estates. We have to make sure that the new economies are delivering in terms of the other policy objectives as well. We need more economic competitiveness going hand-in-hand with a reduction in social exclusion and deprivation. Perhaps one of the biggest changes of all is that Liverpool and Manchester aren’t competing, despite their relative proximity. Instead, they are working together to build up the same market and make the region as a whole competitive on a global scale.
Newcastle is another of our core cities that is working hard in tackling economic well-being alongside the social and environmental well-being of their communities. Newcastle Science City is a project that brings together different aspects of urban regeneration today. It is taking cutting edge science and technology – particularly in areas of social as well as economic importance, such as tackling climate change and health issues – and turning that science into sustainable jobs and companies. This innovation agenda is linked to the physical regeneration of run-down industrial areas in the city. To truly benefit local communities, the expertise needed to achieve this must be ‘home grown’. So the project is aiming to transform science learning in the city’s schools and further education programmes – and it is making good progress.

In his report last year on ‘The State of English Cities’ Michael Parkinson highlighted the progress that had been made in recent years – our cities are back it said. But he also laid down the challenges ahead. Since then we have been working closely with our core cities, looking at what is needed to overcome the barriers to further progress and to meet the challenges. A key theme has been forming robust and productive partnerships. Indeed this has been an important part of our whole devolution agenda and the major changes we are making in governance at the local level. We are looking to widen the network of partners with an interest – and influence – in the area, to well beyond the usual public sector agencies. This is one way where, for our cities, we can learn much from the approach of other places taking part in the COMPETE project.

Some European cities, for example, have much closer links between city authorities, universities and the main funders from both the public and private sectors. These links are more recent for our core cities and, in the past, have not been as highly valued as perhaps they should have been. We have also had a more centralised structure which has meant that most national and international organisations have their UK headquarters in London. With the stronger decentralisation in Germany, for example, the greater regional and local clout this gives has led to head offices being sited in other cities. In turn this gives the regional economy a boost.

There is no doubt that access to world cities like London is important and helps economic development. However with good transport and communication links, businesses don’t actually have to be there to benefit. We can learn, for example, from cities like Munich where the route from airport to city centre is quick, easy and seamless. However I know the lessons have not just been one way. Many of you have been interested in our public-private partnership funding arrangements and the move from government grants to loans. Another point of interest has been how our city centre regeneration has been largely funded by private money. The private developers – like the one in Liverpool I mentioned earlier – have recognised the importance of having attractive public spaces outside their buildings as well as the importance of high quality design for the buildings themselves.

There are many factors for success that we have all come to recognise as crucial. Certainly strong local leadership and clear strategic vision rank high among these. Also we need to be good at turning ideas and forward-looking policies into reality on the ground. A challenge for us all here is to make good use of the excellent work done through the COMPETE project so our cities are in better shape to compete on the world stage. I hope the very constructive momentum built up by the project will not be lost. There is a huge amount to be gained from maintaining contacts and continuing to learn from each other. Nothing stays the same and the world will not stand still. New challenges will emerge and different issues evolve. We will need to make the most of every advantage we have, in order to keep Europe in the premier league. One lesson we have learnt is that far more can be achieved by working together than in isolation. Don’t let us lose that important competitive advantage.

Phil Woolas MP
The COMPETE project is a dynamic European network of cities and city-regions established in order to share experiences and raise the profile of major regional cities in order to enable them to fulfil their role as drivers of urban renaissance and economic competitiveness. Funded through Interreg IIIC and the Department for Communities and Local Government, the policy implications from the project will provide the platform to build successful strategies to shape the future of our cities for many years to come.

Sheffield led the project on behalf of the seven network partners, Barcelona, Dortmund, Helsinki, Lyon, Munich and Rotterdam, the core cities of the UK, Birmingham, Bristol, Leeds, Liverpool, Manchester, Newcastle and Nottingham and DCLG.

The project focussed on the following themes:

- Public-private partnerships;
- Human capital;
- Culture, innovation and creative industries;
- The knowledge economy and innovation;
- The role of networks in the knowledge based economy;
- Connectivity in the global world, and
- Cluster strategy.

In addition to the showcasing and networking events, the project is underpinned by benchmarking data on European cities and city regions on a variety of competitiveness themes as part of our efforts to share best practice.

The purpose of the benchmarking is to measure performance in city-regions in relation to urban competitiveness. This should help practitioners to identify cities with similar strengths or weaknesses as their own, and identify areas for joint working. All of this can be accessed through the website at www.compete-eu.org

The timing of this report is critical in shaping future policies of cities and city regions and provides the opportunity to influence policy implications with senior officials from local and central government, the EU commission, universities, other European cities, the media, think tanks and research institutions.

We all know enterprise and employment rates are going up. There are positive signs that we are moving towards a knowledge-based economy and we are attracting more foreign investment. We need to capitalise on these trends if we are to compete in the increasingly global economy.

Of course success is a complex issue. It is not just a matter of economics and enterprise. Successful places will be those also offering a good quality of life, genuine sustainable development and strong, cohesive communities.

People want cultural opportunities, good education and provision for their children, decent housing, clean and safe streets, good transport and high quality parks and public spaces. Cities offering these sorts of advantages will attract a workforce with the skills needed to establish and sustain a successful economy.

This report provides you with the tools and techniques to develop strategies for sustained city growth.

I hope you will find it useful in planning and delivering successful cities and city regions.

Sir Robert Kerslake
Chief Executive
Sheffield City Council
Following three years of high profile showcasing events staged across Europe and a series of in depth conversations, study visits and workshops to discuss and debate best practice in relation to urban and economic regeneration, it is time to reflect on what we have achieved and highlight the key learning outcomes, best practice and innovative approaches to support future planning and development.

The key outcomes from the project are critical in shaping the future policies of cities and city regions. COMPETE has illustrated how successful places are those offering a good quality of life, sustainable development and strong communities, attracting strong business investment and retaining a skilled and flexible workforce. This report focuses on the key themes of our work to date including:

- The role of leadership and partnership in both public and private sectors, crucial for understanding and capturing globalising trends and the implications for shared economic governance arrangements.

- The role of the public sector in determining strategic direction and organising consensus with key partners in order to increase levels of investment.

- The role of national government in facilitating the management of the potential of cities at different levels and empowering cities to find their own place in a competitive globalising world.

- Marketing the city and city region, establishing a brand and image and ensuring buy in of all partners in promoting the city and its region.

- The importance of social milieu, delivering economic and social programmes together and the importance of people, human resources and skills development.

- Connectivity and investment in infrastructure, linking companies to hub regions and global markets.

- The role of Universities in world-class research and development, innovation and the knowledge economy.

- The role of creative industries in economic competitiveness and place making in cities and city regions.

I would like to take this opportunity to thank: the network partners for all their support in ensuring the success of COMPETE; my colleagues at the European Institute of Urban Affairs for their support facilitating the series of showcasing events and their role in benchmarking; and colleagues at DCLG for their assistance in making this project a reality.

Finally, I would like to thank colleagues at the secretariat in Lille for their support throughout the project.

I hope that the learning outcomes and best practices identified in this report provide a useful reference point in planning and delivering successful city growth in your cities and city regions.

Peggy Haywood
COMPETE Project Manager
Chapter 1

COMPETE - What Is It And What Did It Do?

Professor Michael Parkinson CBE, Director, European Institute for Urban Affairs, Liverpool John Moores University
1. Introduction

1.1 The COMPETE network developed from the work I undertook for the British government and the English Core Cities which looked at how big English cities outside London compare with some of the best performing European cities. From that project partners developed the idea of a learning network to exchange knowledge and demonstrate best practice for cities in economic performance. The project had built a detailed picture of what is happening in successful European cities. It had also built up a very powerful network of European policy makers and politicians - at national, regional and local level. Many of them wanted to share their experience more directly with British colleagues. Partners proposed a project in which key people would be brought together to explore in detail the real policy implications of this study for policy makers. It would involve selected site visits to the right cities to see the right projects and talk to the right people to see first hand what is going on and what is working in different European Cities. More generally it was hoped the network would encourage the formation of genuine cross - European working between professionals.

1.2 The idea proved attractive to senior decision-makers and the network was funded in 2004 by the European Commission and the British Government. The partners were: the Department of Communities and Local Government, the English “Core Cities” which are the eight largest cities apart from London, and a number of European cities. The city of Sheffield was the leader. Key partners were Barcelona, Dortmund, Helsinki, Lyon, Munich and Rotterdam. The network tried to build on the research work we did as well as upon urban policy in the UK. The overall purpose of the network was to improve the profile and performance of our city-regions in Europe. The specific themes of our work were the key drivers of city competitiveness identified in my original report - innovation, economic diversity, connectivity, skills and human capital, place quality and strategic decision-making capacity.

1.3 Both the project and this network stemmed from UK government’s wish to understand the contribution that provincial cities make to the national economy. They were underpinned by serious concerns shared by many city leaders and national government. These were that the English core cities: were not punching their economic weight nationally; were falling behind London which is a successful global city and outperforms former industrial cities; lack the right powers and resources to improve their performance; are not as competitive and do not make as great a contribution to the national economic welfare, as comparable cities in continental Europe. The network set out to explore those issues in the partner cities trying to see whether those concerns were well founded and, if so, what the policy implications were for the UK.

2. What did COMPETE do?

2.1 The COMPETE network generated a number of products. First it held a series of high powered international workshops on the drivers of competitiveness, pulling together decision-makers and policy makers in intensive discussions for several days at a time. Second it constructed a major website database on the competitiveness of the partner cities – the Knowledge Resource Centre – which contains benchmarking data, city profiles and examples of good practice. This database remains a legacy of this project which can be developed in future. Third it organised a major Final Conference at the Foreign and Commonwealth Office in London which reported the key findings to a large international audience of decision-makers. Fourth it produced this final report which distils the essence of the project’s findings - reviewing experiences, identifying good practices and policy principles.
COMPETE – What Is It And What Did It Do?

2.2 However, the COMPETE network was not just about data analysis and policy messages – important though they are. A crucial feature was the trust and relationships that were built up during the three years, which have encouraged learning between cities and helped increase the capacity of urban policymakers at a European level. That trust, those relationships and that knowledge are the hidden, but vital and continuing, benefits of this as of any good Interreg programme. Its legacy endures.

3. Why do cities and urban competitiveness matter?

3.1 In recent years there has been much discussion about the nature and size of the contribution that cities make to regional and national economies. Cities are being affected by a series of structural forces. The first is globalisation, which means that power is moving away from the nation state to the cities, which requires us to find new ways of governance. The second is economic restructuring and the growth of the so-called “Porsche-Hamburger economy" which creates great economic and social inequalities within cities. The third factor is growing competition between places as well as firms. The fourth is the restructuring of the welfare state which has led to an increase in the number of vulnerable people and communities in cities. These common trends form the context for the development of cities. In a global economy cities and places are becoming more not less important. They provide security in an uncertain world. They provide a source of local identity. They remain strategic decision-making sites.

3.2 In the last decade there has been a transformation in the perceptions of the role cities play right across Europe:

- Traditionally cities have been seen in their respective national economic hierarchies. Increasingly they are seen in a wider European economic context at least.
- There has been a rapid growth in the development of networks to promote trading links, exchange good practice and promote the interests of cities at a European level.
- There has been growing awareness of the contribution and potential of cities to Europe’s economic competitiveness. Cities are increasingly seen as economic assets, not liabilities, which need to be exploited not only at a national but also at a European level.
- But there has also been growing recognition of the double-edged character of much economic change in cities during this period. The search for economic growth has not always led to social equity but to social exclusion.

3.3 Across Europe, more and more nation states and the European Commission itself are beginning to realise that cities are the engines of national and regional economies and are beginning to support, invest in and empower them. Europe has become a new space to develop opportunities and to encourage urban entrepreneurship. As a result there is a growing interest in new hierarchies which are emerging across Europe. The theme of urban competitiveness - which was the theme of the COMPETE network - has increasingly moved to the centre of attention in the last decade. All partners in COMPETE agreed we need to learn from the ways in which the different nation states are investing in cities and seek to copy the best from them.
4. What is a competitive city region?

4.1 Our definition has two characteristics. It is the ability to attract and maintain firms with stable or rising market shares and the distribution of that wealth and creation of higher standards of living for all citizens. So it is about the distribution as well as the creation of wealth. Also competitiveness is not the same as competition. Competitive is a zero sum game in which the winners succeed at the expense of the losers. But by strengthening the competitiveness of European cities we can contribute to the improvement of the competitiveness of Europe. By investing in R&D, physical infrastructure, in people, our cities can all become more successful thus leading to an improved national performance. Our work rejects the idea that this is a competition between European cities, or between the Core Cities and London or between the Core Cities themselves. It is possible and desirable to make all places more competitive.

4.2 Nor is competitiveness urban renaissance. In the UK we have been very successful at delivering urban renaissance for well over a decade, meaning the physical restructuring of our city centres and water fronts with prestige projects. There has been an enormous amount of capital investment in our city centres and their physical infrastructure. That huge investment continues. And English cities look very different today from what they did a decade ago. But this is not the same as economic competitiveness. The experience of Munich or Helsinki for example in this project show what a high value added, competitive economy can achieve - far beyond the urban renaissance model.

5. What are the characteristics of a competitive city-region?

5.1 This report argues that there are six drivers of urban competitiveness. The first is innovation in processes and products. Knowledge based industries are the key to innovation and the development of world-class standards of living. Innovation is the introduction of a new or changed process, service or form of organisation into the market place. The OECD estimates that between 1970 and 1995 more than half the total growth in output of the developed world resulted from innovation. And since most economic activities are concentrated in city regions, knowledge and innovation are two of the most significant contributors to the economic growth and competitiveness of cities. The European Commission has estimated that over 40% of the variation in per capita regional income can be explained by differences in innovative performance. Until recently relatively little attention has been paid to the local characteristics of innovation systems, compared with national characteristics. But differences in the governance of local innovation systems can make a difference to the economic performance of city regions and raise the prospect that good practice might be transferable from more competitive to less competitive places.

5.2 The second factor is economic diversity. The cities which are most successful in responding to economic change are those which are least dependent on a single sector. Cities that are dependent upon a single sector - whether old-fashioned coal, steel, shipping or new-fashioned financial services, mobile telephones, culture or computers are most vulnerable to the vagaries of global economic forces. This applies as much to Helsinki, Frankfurt and London as it does to Liverpool, Sheffield and Newcastle. Munich is the clearest example of this, with the ‘Munich mix’ constantly cited as the key to its success. It has strength in global and local firms, large and small, manufacturing as well as services, the old as well as the new economy. Munich constantly seeks to diversify its economic base pushing into different sectors - but not indiscriminately. The message from all our cities was the need to diversify and to deepen existing strengths. Nobody believes a city can build on greenfield site strength where none currently exists locally. The trick is to work with what you have and to modernise.
5.3 The third driver is skilled people. A skilled workforce is a critical feature of competitive cities. Modern economies increasingly depend upon knowledge intensive sectors, even within manufacturing. The policy makers in our project rated this characteristic consistently highly. It was rated as the most significant single factor by the private sector. And the comparative data on cities underlined the relationship of skilled workers to the innovation and GDP levels of the most competitive cities.

5.4 The fourth feature is connectivity. When I started the original project, the distinguished commentator Sir Peter Hall observed that I would find two factors drive successful cities: universities and airports. And he was right! Airports are tremendously important sources of new ideas, processes, products, and people. London and Manchester greatly benefit from their airports. The most successful cities have the physical and electronic infrastructure to move goods, services and people quickly and efficiently. External connections are important since exporting remains critical to success. So airports are critical. They facilitate face-to-face communication, which has been supplemented, not replaced, by technological communication. But connectivity is not simply physical. There is a cultural dimension to it as well. A significant feature of our successful continental cities is the importance they attach to internationalisation and having city foreign policies. Munich, Rotterdam, Lyon, Helsinki and Barcelona, in their different ways, have each invested significant time and effort in international networking to raise their profile, gain new allies, expand market share, influence decision-makers, learn new strategies and practices.

5.5 Place quality is the fifth driver of competitiveness. It is crucial to attracting and retaining a potentially mobile skilled workforce. Soft locational factors are becoming increasingly important in differentiating one city from another. For example, in our original study, one of the constant threads of interviews with public and private decision-makers was the significance of attracting and retaining skilled workers to their cities. And in their calculations, the quality of life for themselves and their families is an increasingly important factor. Cities with the assets of good environment, distinctive architectures, cultural facilities, diverse housing stock and access to natural amenities are attempting to preserve and improve them. Munich, Lyon and Barcelona have different mixes of those characteristics and their policy makers are trying to enhance them. Those cities which are not so well blessed are attempting to create them in their cities.

5.6 Strategic capacity, by which we mean decision making, political processes and leadership is the final critical factor. One of the constant themes of the original project, in the literature and in our survey and fieldwork discussions was that systems, institutions and organisations do shape competitiveness. But processes and politics matter equally. The narratives from our individual cities constantly generated the same themes: the significance of networks and relationships between key players in the public and private sectors; the importance of crucial politicians in shaping strategies or influencing key programmes; the significance of having allies to influence the decisions of regional and national governments. Economic competitiveness strategies have to be fashioned and implemented. They do not just emerge. And they take a long time to develop and to implement. Although they now become virtual clichés, it is still true that all of our competitive cities emphasise the notions of vision, leadership, partnership and politics in shaping long-term development. Successful cities like Munich are always emphasising the role of luck in their success. But it is the way in which a city shapes its luck which really matters.
5.7 This report looks at the experience of the project cities to see what messages there are about urban performance. Each city in the network focussed upon a particular theme which is reported in the following chapters. Sheffield focussed on governance and partnerships, Dortmund on human capital, Barcelona on the creative industries, Helsinki on the knowledge economy and innovation, Munich on knowledge networks, Rotterdam on connectivity and Lyon on clusters and competitiveness. The following chapters present some of the key findings from their work and some important policy messages. The final chapter identifies some of the common threads which emerge from them.

Governance, Leadership and Urban Competitiveness:

SHEFFIELD

Sir Robert Kerslake, Chief Executive, Sheffield City Council
1. Introduction

1.1 Sheffield chose this theme for a variety of related reasons. Sheffield City Council has successfully managed one of the largest capital investment programmes in the country; and it has overseen a remarkable economic turnaround in just ten years.

1.2 Sheffield has not, however, always been in this position – these achievements are the result of a great deal of commitment, perseverance and hard work, driven by strong political and executive leadership. Public private partnerships are a critical element in the shift in performance, and in the way that both the city and Council have been transformed.

1.3 Sheffield is the UK’s fifth largest city, located in South Yorkshire with a population of 521,000; this is expected to grow by 7% (36,100) over the next 20 years. The city has a working population of 321,000, 62% of the total. This is in line with national levels but low when compared to other major cities.

1.4 In the nineteenth century, Sheffield was a successful city based on a strong manufacturing and steel industry, with links to the nearby coalmines of South Yorkshire.

1.5 Sheffield suffered from a severe economic shock in the late 1970s and early 1980s, leading to mass unemployment and the loss of much of the city’s industrial power-base.

1.6 Since the decline in the 1970s and 1980s, Sheffield’s industrial structure has started to shift to a service-based economy and this process has accelerated in the last ten years.

1.7 Employment in Sheffield is now characterised by:

- Growth in retail and distribution, and business and finance – in the latter case, the proportion of employment is lower than the equivalent national figure.
- A large public sector employment base with two universities, a large health sector and the location of regional and national agencies in the city.

2. Partnerships and governance

2.1 Since the late 1990s Sheffield has been attempting to promote the urban renaissance agenda, through its partnership and governance strategy. Figure 1 shows the key agencies in the city and their inter-relationships.

2.2 A significant step towards changing the city’s fortunes was made in 1998 with the decision to establish the Sheffield First Partnership. This was long before the idea of partnerships became a standard part of local governance structures and predated the requirement for areas to form local strategic partnerships. Sheffield First was set up to provide the city with a forum where the key stakeholders, including the police, the health service, the private sector and the voluntary and community sector, could come together collaboratively and discuss how to work together to begin to move the city forward. The key to the success of the partnership was to unite partners together early on building a shared vision for the city.
2.3 Sheffield First was important because it made it possible to bring together in one place the different aspects that the city needed to address if it were to make real progress, particularly in relation to the city centre and the neighbourhoods. This enabled a holistic approach to the improvements that were required for Sheffield. A number of specialist boards, focusing on key policy areas, were established to support the work of the main board, which continues to retain a strategic overview of the city’s aspirations and vision:

“Sheffield will be a successful, distinctive city of European significance at the heart of a strong city region, with opportunities for all”.

Reformed governance

2.4 A secure financial footing was critical to the future of the Council and therefore key to delivering the aspirations for the city. The Council leadership had some tough choices to make, all of which were necessary, some of which were unpopular.

2.5 Both the political and managerial structure of the Council needed to be changed and an early move to the Cabinet and Leader form of governance was made, to enable a much more streamlined decision-making process.

Figure 1. The Sheffield First Family of Partnerships
The Council also embarked on a policy of public private partnerships where it made financial and strategic sense to do so, and would result in a better quality of service than would otherwise have been possible to provide internally. This was a major shift in culture for the Council.

3. Economic revitalisation

3.1 Emerging from the work of the Urban Task Force in 1999, the urban regeneration company (URC) concept offered a new approach to regenerating the UK’s towns and cities. A URC was a different kind of delivery agency with the express purpose of developing an integrated regeneration strategy for a defined urban area.

3.2 At the same time in Sheffield, the regeneration of the city centre was identified as a key task for the city. This was a major undertaking for the city and whilst a significant challenge, it was also a tremendous opportunity which, if done successfully, would send a strong message to residents and stakeholders at national, regional and local levels that Sheffield was on the up. The URC model offered the ideal opportunity to take forward the city centre redevelopment as part of a national government pilot scheme and, in February 2000, Sheffield One was established as the third URC in the UK.

3.3 Urban Regeneration Companies (URCs) were meant to be different from previous models, especially the Urban Development Corporations that had substantial budgets and extensive planning powers. Their job was to address latent development opportunities by developing a strategic plan, agreed by key stakeholders after public consultation to produce a collective vision for the future. Their primary focus was to be physical development and the reuse of brownfield land.

3.4 URCs were not meant to have a direct development role. Their job was to deliver physical improvements through partnerships, maximising the powers and expertise of existing agencies. They would be created only where existing agencies could not have the same effect. URCs were established by local authorities, Regional Development Agencies and in some instances, English Partnerships. They were set up where local partners wanted them, rather than being imposed by government. They received no separate resources or specific powers, other than those already possessed by the partners. The long-term strategic, financial and political commitment of the key partners was therefore crucial.

3.5 Sheffield One developed a comprehensive strategy in its Masterplan with six main objectives:

- To diversify the city’s economy and deliver new jobs and economic activity
- To create a vibrant city centre for learning, culture, retail, leisure and living
- To improve accessibility, movement and linkages
- To create a high quality, attractive, safe and sustainable city centre
- To maximise local employment opportunities and linkages
- To promote a positive and investor/visitor friendly image

3.6 Working in partnership, Sheffield One and the Council drew up a comprehensive masterplan for the city centre, focussed around ‘the magnificent seven’ transformational projects with a collective value of over £1 billion, the majority of which was private sector investment. All of these projects are now either completed or on site. Sheffield has brand new public realm in the shape of the Winter Gardens, Peace Gardens and Millennium Square, a completely refurbished concert venue in the City Hall, a new gateway to the city at the station, and a range of impressive, high quality office buildings and hotels. In the longer term the city will benefit from the creation of the New Retail Quarter, a £500m scheme to create a thriving shopping area in the heart of the city.
3.7 The contribution of the City Centre to the local economy is of huge strategic significance. Around 90,000 jobs are based here accounting for 27% of the city’s jobs. In turn, Sheffield is the core city of the South Yorkshire region containing about 40% of its population and 50% of its jobs.

3.8 Although at arm’s length from the Council, the success of Sheffield One is a testament to the successful partnership approach adopted in the city. It operated within a challenging framework, working with a broad range of partners to deliver projects and bringing together disparate funding from a wide variety of sources including the European Union, national government and private investors. These challenges were overcome and, most importantly, the government put its trust in the city to lead and to deliver these improvements.

3.9 Despite changes in political control, the Council has been committed to the masterplan and policy of city centre redevelopment, and this has been sustained over almost a decade. Sheffield One did not have to continually adjust its focus to take account of shifting political pressures.

3.10 Sheffield One ensured the revitalisation of the city centre with a number of hugely successful physical regeneration projects. Alongside Sheffield One, Sheffield First for Investment was established to lead on bringing quality inward investment into the city, attracting both national and international companies to relocate and invest in Sheffield. As an arms-length organisation from the Council, similar to the arrangement with Sheffield One, Sheffield First for Investment was empowered to concentrate fully on the task. This has been rewarded with unprecedented levels of investment in the city and dramatically reduced unemployment rates. In 2006, Sheffield First for Investment was ranked number one as an investment agency and deemed ‘world class’ in relation to its investor promotion activities.

4. What challenges did Sheffield One face?

4.1 Sheffield One faced a series of major economic, political, cultural, and organisational challenges when it was created in 2000. Many partners have emphasised how difficult it is now to remember how big those challenges were and how much progress has been made in meeting them in a short time.

Key challenges

4.2 The city was suffering from the long-term decline of a monocultural economy. There were no really big private sector players. The city did not have the necessary business support structure and networks in place. The office and retail offer was weak and the levels of skills and entrepreneurialism were low.

4.3 The legacy of the confrontational politics of the previous two decades affected political life in the city. There was little tradition of partnership working across the city and it was difficult to generate investment in and attention to the city centre.

4.4 Sheffield was a parochial place - a big town in Yorkshire. It had low visibility in the national, political, cultural and economic arena and confidence and morale in the city was low. People did not believe the city could deliver big projects.

4.5 Following the closure of the Sheffield Development Corporation in 1997 there was no clear lead on wider economic development. The economic development capacity of the local authority had been reduced and the marketing of the city and city centre was not good enough. There was little in the way of sub-regional working.

4.6 The city centre was in poor physical condition. The primary retail area consisted of a long thin strip and Meadowhall had drawn a significant amount of retail away from the city centre. The tram had severely disrupted the economy of the city centre resulting in poor internal and external mobility and connections.
Progress of change

4.7 There is extensive agreement amongst stakeholders on Sheffield One’s achievements and policy messages. Although views vary in detail, the consensus is that Sheffield One has worked and has been a success. All partners are realistic about the journey that the Sheffield economy has yet to travel, but virtually all agree that Sheffield One has been a great success. It has added value. It has made a real difference to Sheffield city centre. It has provided a robust platform upon which its successor body can build. Partners agree that its success underlines the importance of having an arm’s length economic development agency like Creative Sheffield in future.

4.8 Sheffield One and partners have delivered a huge programme. Much progress has been made in doing so. It has delivered 17,671 sq m of new office space, 675 new jobs, 24,800 sq m of improved public space. It has spent £143 million, almost half of its intended total outturn. There are already hugely encouraging signs that Sheffield One is changing the face of the city centre. Employment is growing in the city centre. The economy is diversifying, with the city centre reinforcing its role as a key location for knowledge-based industries. A vibrant city centre is being created with an increase in city-centre living, a growing city centre housing market and upgraded hotel and cultural facilities. A high quality, attractive, safe and sustainable city centre environment has been created. Property prices are up. Rental levels have increased. The flow and quality of offices is better. The hotel offer has improved. The quality of city centre housing has been improved. The public realm has been dramatically improved. Sheffield city centre is now arguably one of the best examples of place making in any English city.

4.9 It is clear that as well as physical progress there has been substantial improvement in governance performance. The Partnership mechanism has encouraged a different set of relationships between key players. The city is now seen as a much more business-friendly city whose key players are much more willing and able to work in partnership. Confidence has increased enormously and Sheffield is no longer seen as a failing city that cannot deliver projects. Sheffield One has helped increase the capacity of decision makers in the city. Its small team has brought the capacity of decision makers in the city. Its small team has brought the capacity of decision makers in the city. Its small team has brought the capacity of decision makers in the city.

5. Did the partnership make a difference?

5.1 Some changes would have happened if Sheffield One had not existed - but not at the same scale, pace or quality. Sheffield One came to the city with a fresh pair of eyes and raised the bar much higher than the local authority could have. Without Sheffield One, some of the projects would have happened but others would not have. The level of synergy and spin-offs would not have been as great. Sheffield One’s focus on quality enabled the city to break out of the vicious circle of low demand-low design standards. Sheffield One has changed the reality and perceptions of doing business in Sheffield. The private sector may not have been as willing to work with public sector agencies.

5.2 The Masterplan was crucial. It provided a robust framework for detailed implementation work and financial planning. It gave partners - the private sector in particular - clarity, certainty and confidence. It raised sights and proved a crucial marketing device. A major key to the success was Sheffield One’s very clear focus. It focussed upon the city centre. It focussed upon physical activities. It focussed upon its key ‘magnificent seven’ projects.

5.3 One of Sheffield One’s notable achievements has been the emphasis it placed upon programme and project management.
5.4 In the past Sheffield has not been good at partnership working. But there is universal agreement that the Sheffield One partnership has worked. Much of the success has been due to the willingness of the local authority to recognise the extensive contribution from the partners and key stakeholders.

5.5 The quality of leadership was critical. In particular the contribution of the Chief Executive of Sheffield One supported by strong leadership and support from the partners, is universally acknowledged as the real key to success. Vision, analysis, commitment and political skills kept the partners onside, kept the process going and encouraged delivery.

5.6 Just as leadership has been crucial to the success of Sheffield One so has the quality of the Sheffield One team.

5.7 The Board had the right mix of seniority, political weight, familiarity with the policy issues and sectoral representation.

5.8 The initiative benefited from some favourable external circumstances. For example, the national economic environment was benign throughout the life of Sheffield One and levels of public expenditure on infrastructure were high. Sheffield One benefited enormously from having European funding through the Objective 1 Programme. This was crucial to gap fund the critical early physical projects where the private sector would not take the risk.

5.9 All English cities, and the eight Core Cities in particular have experienced a renaissance during the past decade. Some of Sheffield’s recent improvement is therefore cyclical. The trick is to ensure that the achievements are long-lasting and provide the platform for further growth.

5.10 Delivering the physical regeneration of the city centre was an easier task than that which Creative Sheffield will face in the future. Transforming the economy is more complex, more long term, more challenging. We turn to that challenge next.

6. What remains to be done in Sheffield?

6.1 It is clear that Sheffield has made great progress in many areas including in the economy, physical environment and neighbourhoods. However, whilst Sheffield improves, so do other cities. The building blocks for the transformation of the city’s economy have been laid but there remain some challenges that need to be addressed to deliver that transformation.

6.2 The economy needs to be based increasingly on innovation, enterprise and inward investment to bring about a sustainable step-change in economic performance. There is a need to improve educational attainment and build a skills profile for the city that will meet the needs of a modern economy. The performance of the Council needs to continue to improve across the board.

6.3 Lessons learned from the past ten years need to be taken and applied to the city’s new position. The city cannot afford to stand still – sustaining the momentum is important because it inspires confidence and a sense that the city is making progress, striving for a better future. At the same time it is important to ensure that the improvements made now can be sustained in the future.

6.4 To achieve economic parity with some of the other Core Cities, there is a need to enhance the economy of the whole city, with strong, successful neighbourhoods. This means a more integrated approach, with a better strategic overview of how these two themes interact. Therefore, the Council has put into place a number of initiatives.
6.5 Sheffield has led on the development of the city region partnership and the publication of the Sheffield City Region Development Programme as part of the government’s Northern Way initiative. This sets out a series of proposals to re-establish the economic contribution that the area once made to the national economy. Implementation of these proposals is being led through the recently formed Sheffield City Region Forum in which Sheffield will play an active role. Collaboration with other city regions such as Leeds and Manchester will also be critical to future success. The economic masterplan identifies the need for a significant strengthening of relationships between Leeds, Manchester and Sheffield to build a second UK growth pole to complement the London and South East economy.

6.6 In terms of economic scale, the individual city regions are much smaller than the major European competitors, which highlight the need for greater inter-city regional collaboration in areas such as knowledge and innovation, and research and development. These comparisons illustrate the unrealised potential at the heart of the northern economy.

6.7 The creation in April 2007 of Creative Sheffield, the UK’s first city development company, will be critical to achieving the goal. It brings together the functions of Sheffield One and Sheffield First for Investment, with a wider remit to secure the economic well-being of the city through attracting quality inward investment, strategic marketing, improving the city’s physical infrastructure and developing initiatives to promote the growth of the city’s knowledge economy. It is leading on the production of the city’s first Economic Masterplan, which explicitly links the economic and physical regeneration of the whole city. A complementary second city centre masterplan has been commissioned to set the framework for the continuing development of the city centre.

6.8 Sheffield city centre has come a long way in a relatively short period. But the job of transforming Sheffield has just begun. There is much more to do in improving the wider city’s performance on the five key drivers of economic competitiveness – innovation and skills, economic and cultural diversity, connectivity, place quality and strategic capacity.

7. Key challenges facing Sheffield

Reversing decline and establishing revival

7.1 Since the mid nineties, Sheffield has embarked on a longer-term economic revival, reversing the downward trends of the previous decades. Manufacturing employment decline, while still continuing, has slowed and there is evidence of a number of key sub-sectors, which provide opportunities for employment and output growth. The business and financial services sector has grown considerably in recent years, allowing progress to be made moving the city’s employment base from manufacturing to higher value added service sectors. The redevelopment of the Heart of the City and much of the public realm has helped secure private investment within the city, strengthening the city’s offer and attracting further investment.

7.2 The success of the last ten years has been remarkable and the result of determined efforts by key stakeholders. In particular, the investments funded by Objective 1 and the transformational changes made to the city centre have increased both investor and community confidence. Nevertheless, major challenges remain, and some of the recent growth has involved a catching up process, taking account of local, and previously un-met demand.

A pivotal moment

7.3 The reversal of employment decline and more recently the establishment of a growing population, after decades of decline has taken the City to a pivotal moment in its history. Put simply, the City is facing a choice between:
Maintaining the current, improved trajectory around a slow growing, lower equilibrium economy, where things are better than they were, but do not meet Sheffield’s vision; or

Setting a target of closing the prosperity gap through re-establishing the City as a high value added economy, where matching the national economic performance become the beginnings of the City’s ambition.

7.4 Maintaining the current trajectory, even allowing for building on the new assets developed in the past ten years, will lead to the City lagging behind the national economy and other major cities; higher growth rates elsewhere will see the City’s current competitiveness gradually decline. Under this scenario, Sheffield falls well short of the workforce profile needed for a competitive economy, with a predominance of lower productivity jobs.

7.5 There are a number of external and internal factors that make a compelling case for accelerating the pace of change in the economy.

7.6 While Sheffield has achieved good levels of economic and employment growth in recent years, productive jobs in the manufacturing sectors have been replaced by lower paid and often part-time jobs in the service industry.

7.7 While the rate of manufacturing decline has slowed, if current trends continue, manufacturing will halve to only 15,000 jobs by 2020.

7.8 The city lags behind in terms of banking and finance related employment, the key high value added service sector – at the same time both Manchester and Leeds are increasingly powerful centres, able to benefit from agglomeration effects.

7.9 Despite recent growth of the city region, the city is constrained by a relatively small hinterland, with limited labour market and trading opportunities.

7.10 Increasing educational standards, with greater numbers of young people going on to higher education, will increase the demand for better-paid and better skilled jobs.

7.11 Economic success is not a static objective, and the UK economy is shifting towards a more knowledge intensive economy, to respond to increasing global competitive pressures – Sheffield’s comparator cities are progressing too and Sheffield must achieve higher rates of growth if it is to close the gap with national averages.

7.12 The need to grow the economy, in terms of quantity and quality, is paramount in consolidating recent improvements and providing the opportunities, which allow businesses and communities to flourish. This requires courage and determination to set an ambitious and transformational agenda that returns the City, once again, to one of the country’s major economic centres.

The scale of the challenge

7.13 The economic masterplan provides evidence of the scale of the economic challenge facing Sheffield if it is to meet its vision of providing prosperity, sustainability and inclusion.

7.14 In spite of recent successes, the Masterplan demonstrates that there is a £1.1 billion shortfall between what the City economy could produce, and what it does produce. This is a result of two broad factors:

- Too few people in employment
- Low levels of productivity

7.15 If left unresolved, the combined effect of these factors will be a widening of the prosperity gap between Sheffield and the English average.

7.16 Despite relatively strong levels of GVA per capita growth in recent years, the output gap between Sheffield and England persists, and in 2004 (latest available data) GVA per capita in Sheffield was only 87% of the English figure. Sheffield’s prosperity gap can be attributed to five main components:
• Despite a large potential labour force, high levels of inactivity and poor skill levels lead to a limited effective labour force.

• Too few people are in employment, with too few jobs in the economy, and too many people with insufficient skills to move into employment.

• Hours worked are below average, partly reflecting the scale of part time employment.

• Productivity is significantly below the national average, a reflection of the industrial and occupational mix in the existing business base.

• The under-performance of key sectors when compared to national averages.

7.17 The economic masterplan is unambiguous about the scale of change required to transform the economy. Closing the gap with national economic performance requires a marked increase in:

• The absolute number of jobs – to bring more people into employment and increasing the proportions of the workforce in high productivity jobs/sectors.

• Employment rate – bringing Sheffield up to national levels.

• Employment in high value added service sector employment – made more urgent by the continuing loss of manufacturing employment to international competition.

• Productivity across the business base – both public and private sector, with a focus on high value added service sectors.

7.18 The benefits of success will be felt in every household in Sheffield. Moving to a higher performing economy will see average wages increase across the workforce, unemployment and worklessness will be reduced, and there will be a wider variety of all types of employment available to citizens, including many more higher paid and higher skilled jobs.

Skills and employment: The fundamental challenge

7.19 A qualified workforce will be essential for Sheffield to become an internationally competitive city in an increasingly knowledge driven economy by 2020. To develop an internationally competitive economy, Sheffield needs to significantly reduce the numbers in the workforce with below level 2 qualifications, and dramatically increase those qualified at Levels 3 and 4.

7.20 Meeting future skills demand will require a step change in the rate at which the workforce is unskilled. As the nature of employment changes, those with below Level 2 qualifications will find a smaller number of jobs available, as even traditional entry level jobs demand Level 2 as the minimum need to secure employment.

7.21 While closing the prosperity gap will require the creation of additional jobs to bring more people into employment, the more fundamental change is the re-distribution of employment into higher productivity sectors.

7.22 The scale of change required to close the gap with the national economic performance requires a marked increase in employment in high productivity employment (+25%), from 61,000 to 77,000 and a significant increase in medium productivity jobs (+30%). The latter is more likely to be provided by market forces, while the high productivity jobs will require significant intervention given the current profile of the economy.
8. The new Sheffield economy

8.1 The masterplan is underpinned by a detailed analysis of Sheffield’s strengths, weaknesses, opportunities and threats. These are broadly similar to the challenges that face any UK city. What makes it distinctive is the specific nature and scale of the responses required: Sheffield’s solutions will need to reflect Sheffield’s unique mix of needs, circumstances and priorities.

8.2 Sheffield has fewer large, specialist service sectors than other major cities, notably those which act as regional capitals. Sheffield’s strengths and opportunities are more varied and diverse, including a number of small emerging niches. The combination of these strengths is a growth potential, which sets a framework for the transformation of both skills and productivity and avoids an over-reliance on a narrow range of sectors. Sheffield has a number of outstanding, small manufacturing sub sectors, where the intensity of employment is high – these highly successful companies are a key distinguishing feature of the Sheffield economy.

8.3 While the City has a gap to make up in terms of high value added services, particularly business and professional services, recent employment growth has been strong.

8.4 Sheffield is a major location for public service employment, and significantly, has a high representation of employment in national agencies.

8.5 The presence of two successful Universities represent exceptional assets for the City and its economy – they provide significant employment in their own right, major secondary benefits in terms of student spending power and its impact on the local economy, and add considerably to the knowledge base through some very strong specialisms and to the sense of place.

8.6 This profile highlights the need for a broad based approach. This approach will develop new sub sectors and super niches, strengthen the long term competitive advan-

tage of the City, build on the two major service sector strengths – the Universities and governmental agencies – and further develop business and professional services.

8.7 In order to move forward and close the prosperity gap, Sheffield must build on its many strengths and actively develop its economy to retain and attract skilled people and investment and drive forward the growth of the high value added knowledge based economy.

8.8 Addressing the underlying weaknesses of a limited, low productivity business base, with high levels of poorly qualified people within the workforce, sets a major challenge for stakeholders, and requires investment across a number of fronts.

8.9 The City has two successful Universities, which act as major attractors of talent. It is already an established location for public sector employment, with the potential to further benefit from the outcomes of the Lyons Report. While the rejuvenated city centre and the quality of life now underpin Sheffield as an investment location, the quality of the business and economic infrastructure and limited labour pool will continue to act as constraints.

8.10 Key opportunities to boost the growth of Sheffield include building on the momentum of recent growth in office based employment, developing the many successful specialist sub sectors and niches, and capitalising on new opportunities nationally and internationally.

8.11 There is a need to organise and manage all sections of the community to support sustainable economic growth, with the public sector addressing key constraints with regard to infrastructure and skills, private sector increasing productivity and market share through innovation and developing new markets; and the third sector supporting economic inclusion actions to increase economic participation.
9. Conclusion

9.1 These messages so far stem from a review of Sheffield’s particular experience. The Sheffield work also underlined some broader messages about partnership and governance that cross over national boundaries.

9.2 Successful partnerships require:
- Building confidence in the private and public sectors
- Easily understandable vision
- Strong leadership
- Access to funding
- Dedicated delivery team
- Deliverable strategy and masterplan
- Programme management regime
- Right choice of private sector partners
- Being prepared to take manageable risks

9.3 Partnerships come in many different shapes and sizes. They need to be fit for purpose. Shared and realistic goals are vital. A clear contract is a necessary part of any successful partnership, however, real success means going beyond this. Good relations are important. But it is what people actually do that matters. Public private partnerships are not in conflict with public accountability. Properly done they enable the public sector to extend its reach. Partnership brings the challenge of managing complexity. Strong programme management is essential.

9.4 Since the late 1990s Sheffield has achieved a lot. The city is now a much more prosperous and economically successful place than it was then – and this prosperity is beginning to be spread more widely. There are a number of key reasons why Sheffield has been able to do this.

9.5 We set ourselves extremely challenging, but ultimately achievable goals. Goals such as reducing unemployment to the national average, or of implementing all seven city centre projects by 2007, or of achieving financial stability in the Council. This meant that we had to challenge our staff – make them believe that we could get there – but also support them wholeheartedly along the way. We had to convince our partners that our vision was attainable and that this was the way to achieving it. And we had to engage with local people to understand their hopes and aspirations for the city.

9.6 Stable leadership has underpinned our ability to have a strong and distinctive voice in central government. Membership of key influencing groups, including the Core Cities network, has been instrumental in allowing us to measure our progress against similar places, learn from them where they performed better than us, and to share the expertise that we have accumulated.

9.7 Sheffield, in common with all the major English cities, has made incredible progress in the last ten years. Our city centre has improved almost beyond imagination, the economy has strengthened and is still growing, and all of our neighbourhoods are becoming places where people enjoy living once again.

9.8 This has been down to a great deal of hard work by a vast range of people, the impact of which has been that we have a leading city that is on the up once more. It has an incredibly innovative public sector, sustained by an intensity of activity that ensures that we are always looking at different and better ways of doing things.

9.9 The three principles of our success – respect and trust, partnership, and devolution – have provided a solid foundation for our efforts. They have taken a great deal of hard work to put in place and to get right. However, we are confident that by maintaining this into the future, and by learning the lessons of the past ten years, the city of Sheffield will continue to improve and will become an even better place in which to live and work.

COMPETE: FINAL REPORT

Goverance, Leadership and Urban Competitiveness: Sheffield

\[\text{Sheffield City Strategy 2005-10, Sheffield First Partnership (2005, revised 2007)}\]
\[\text{GDP Global Investment Promotion Agencies Performance Benchmarking report (2006)}\]
Chapter 3

Human Capital and Urban Competitiveness:

DORTMUND

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1. Introduction

1.1 Dortmund’s role in the COMPETE project was to examine the significance of human resources for the competitiveness of cities and facilitate exchanges of best practice among partners on regional strategies for developing human resources. Ever changing economic conditions pose fresh challenges for cities and citizens regarding social and economic futures. Cities must work with existing local conditions and frameworks of action to improve their competitiveness. A key aim is to improve conditions for companies and their staff, so that they remain. A second aim is to develop the export business of local companies. The economic base and the associated jobs form a significant part of the relationship between a city and its citizens, and between companies and staff.

1.2 The City of Dortmund is the second largest city in North-Rhine Westphalia and the sixth largest city in Germany. It has 590,000 inhabitants. Dortmund is working to make itself an attractive location for both companies and their staff. Dortmund is in the process of developing a new economic identity for itself. This process has resulted from the dramatic job-losses in the steel and coal industries over the last 25 years. This decline has seen the last coking plant in the area close, and the clearing of large industrial areas particularly at the time around the turn of the century. At the same time, however, intensive work was being carried out on developing a new urban political approach and new economic-policy strategy for the City of Dortmund.

1.3 The Dortmund project – a broad based strategic public private partnership – has been of enormous significance here in terms of this new direction for Dortmund. This public private partnership focuses on the following areas:

- area and infrastructure
- innovative milieu
- people and skills
- capital - financial framework for innovations

1.4 Backed by public funds and with a ten year time-frame for development, the Dortmund project has identified a number of new key sectors for Dortmund and has brought to maturity a variety of urban development projects. The decision to concentrate on just a few key sectors has brought numerous advantages by bundling together resources, and has allowed for the exploration of the feasibility of developing these sectors. Logistics and IT services, as well as the still small but strongly developing microtechnology cluster, have proved to be extremely capable of development. From the beginning it was clear that a sector orientation approach, would need strong support and the necessary funding for sector-specific specialist staff.

Dortmund: Microtechnology

This microtechnology cluster, formed in Dortmund, provides optimal conditions for the continued growth of existing and new companies in this sector. The cluster includes companies, universities, research institutes, training networks, and venture capitalists, as well as research and development establishments with state of the art equipment. The newly constructed centre of excellence for the future sector of micro and nanotechnologies, the MST factory Dortmund, offers start-up companies and established companies, a modern equipment park, clean room facilities and technical infrastructure together with comprehensive services. It is the first of its kind to be set up in Europe. The MST factory Dortmund is located at PHOENIX West, the new multi-functional technology location for the ‘new Dortmund’ which is being supported by EFRE (ERDF) funds from the European Union. In addition from 2006/2007 the University of Applied Sciences Dortmund will run a BA course in Microtechnology. This will fill an important gap in the Dortmund MST cluster.

In November 2006 Dortmund was presented with the EUROCITIES award for the ‘innovation’ category. Dortmund’s commitment to promoting founders in the fields of micro and nanotechnology was particularly praised.
1.5 Dortmund’s two policy strands of “local sector and cluster development”, which focuses on developing existing companies and promoting SMEs, and “developing human potential”, are closely linked. They form the core of Dortmund’s new urban economic development policy.

2. Developing human resources in Dortmund

2.1 Dortmund recognises that for municipally accountable economic development to take place, human capital, alongside firms, is decisive for regional development. Human resources can be defined by the size and demographic structure of an area’s population, and the population’s socio-economic structure and skills. These skills include vocational qualifications as well as social skills. To remain competitive in a global context a city’s workforce must be able to adapt to the constantly changing requirements for new training and qualifications. These are vital for the economy. Changing requirements include vocational training and further education as well as basic and initial training. A range of local agencies work in this field in Germany, including the school authorities, and tariff partners in the fields of training. The Federal Employment Agency is of great significance here, as are the service-oriented providers of vocational education who compete with one another. The presence of experienced partners from the scientific fields of employment research in the region has also had a favourable impact on the supporting of structural and operational changes in human resources.

2.2 Analysis of conditions in Dortmund supports the arguments for developing human resources. The rate of those who attain university entry requirements each year in Dortmund, for example, is currently at around 32% - this needs to be improved. This is above average for North Rhine Westphalia, but below the rates found in comparable large German cities. The future prospects for the city’s development are also affected by the potential skills found among immigrant groups. In Dortmund about 12% of the population are migrants. Unemployment among migrants is higher than average, and additionally second generation migrants are not well positioned, to move into employment, as their attainment levels at school are low. Overall, despite all of the positive economic developments in the city, Dortmund has a relatively high level of unemployment, with 42,000 registered unemployed in February 2007, and with 22,000 having been unemployed for more than a year.

2.3 These current conditions demonstrate the need for action and the need to meet both current and future requirements for quality staff. Dortmund has focused on this challenge, particularly through activities stemming from the implementation of ESF programmes. In addition a number of national initiatives for improving the situation regarding human resources and unemployment have been implemented in Dortmund since the 1990s. These have covered areas such as:

- fighting unemployment,
- promoting vocational education, and
- forming preventative employment policies.

2.4 Initiatives in these areas are, in principle, developed by North-Rhine Westphalia (i.e. the state level), and implemented at the city-region level. In the last funding period, 2000 – 2006, Dortmund received around 65 million euros of ESF funding and state (NRW) funding, which was made available for various specified projects. The City and its Economic Development Agency managed this process, which involved the range of relevant agencies from across the business, science and political fields. Since the mid-1990s, regional decision-making regarding individual projects has been carried out in an ‘employment conference’. Projects are only recommended for state and/or EU funding if there is unanimous support. In the meetings, which are held four or five times per year, there are also discussions about strategic orientation.
Occasionally it has been possible for applicants to attend, to explain the proposed projects themselves. Since 2004 the City has been working in an extended regional area. Partners from the bordering municipal districts of Unna and the City of Hamm have also been involved in shaping employment policy. This shows that there is recognition that employment policy can be implemented better in larger functional catchment areas, when developing best practice models. In this extended region, which has a population of 1.2 million inhabitants, consensus-oriented structures are used. Between 2004 and 2006 projects were given funding to the tune of around 25 million euros, made up of state and EU funds, for the whole area. Currently the topic of “increasing employability” is being worked on intensively in cooperation with both partners and companies.

2.5 The partners who have worked closely together since 2004 in the Regional Working Group on Employability/Qualification are:

### Regional Working Group on Employability/Qualification

- Agentur für Arbeit Hamm (State Employment Agency Hamm)
- Agentur für Arbeit Dortmund (State Employment Agency Dortmund)
- ARGE für den Kreis Unna (State Employment Agency District Unna)
- Arbeiterwohlfahrt Hamm/Ahlen (Workers’ Welfare Association Hamm/Ahlen)
- Bezirksregierung Arnsberg (Regional Government Arnsberg)
- DGB Östliches Ruhrgebiet (German Trades Unions Eastern Ruhr Region)
- Dortmunder Weiterbildungsforum e. V. (Dortmund Further Education Forum)
- G.I.B. Landesberatungsgesellschaft (Company for Innovative Employment Policy, State Consulting Agency)
- Handwerkskammer Dortmund (Chamber of Trades Dortmund)
- IG Metall Dortmund (IG Metall Trade Union Dortmund)
- Industrie- und Handelskammer zu Dortmund (Chamber of Industry and Commerce Dortmund)
- JobCenter/ARGE Dortmund (Job Centre Dortmund)
- Kommunalstelle Frau & Beruf (Municipal Agency Women and Employment)
- Kommunales JobCenter Hamm (Municipal Job Centre Hamm)
- Kirchenkreis Unna (Church Working Group Unna)
- Kreishandwerkerschaft Dortmund und Lünen (District Trades Association Dortmund and Lünen)
- Landesinstitut Sozialforschungsstelle Dortmund (State Institute for Social Research Dortmund)
- Ministerium für Arbeit, Gesundheit und Soziales (Ministry for Employment, Health and Social Affairs)
- SRH Fachhochschule Hamm (SRH University of Applied Sciences District of Unna)
- Stiftung Weiterbildung Kreis Unna (Further Education Trust Hamm)
- Unternehmensverband Westfalen-Mitte e. V. (Employers Association Westfalen Mitte e.V.)
- Unternehmensverband der Metallindustrie für Dortmund und Umgebung e. V. (Employers Association for the Metal Industry for Dortmund and Area e.V.)
- Weiterbildungsberatung Hamm (Continuing Education Advice Centre Hamm)
- Wirtschaftsförderungsgesellschaft für den Kreis Unna mbH (Economic Development Agency for the District of Unna mbH)
- Wirtschaftsförderung Dortmund (City of Dortmund Economic Development Agency)
- Wirtschaftsförderungsgesellschaft Hamm mbH (Economic Development Council Hamm)
2.6 There are numerous organisations that implement projects and continuing education courses in Dortmund. Some of them have joined together as associations at a City level. The most important contact partner is the “dwf” Dortmund Further Education Forum which has more than 20 partners and which has been active since 1993. Other important partners are the two chambers (industry and trades), the DGB (German Trades Union Association), as well as the different company associations. The Dortmund Education Cooperative (Bildungskooperative) also plays an important role. The Volkshochschule, Abendrealschool (evening secondary school), Abendgymnasium (evening grammar school) and the Westfalenkolleg have come together to offer the best possible ways for adults to attain school certificates. In future the significance of the local universities in terms of vocational continuing education will increase. The establishment of the Centre for Continuing Education at the University of Dortmund is a promising start.

3. Key messages about human capital and urban competitiveness

3.1 A number of key messages emerged at the Dortmund conference. The conference reviewed initiatives in the following fields:

- Skills and cluster development
- Modern small and medium-sized businesses
- Qualifications and employability
- Young people – from school to work
- Lifelong learning

The first two topics focused on the links between qualifications and training and company development. The three other topics looked more closely at the issues surrounding access to training and qualifications for individuals. Key messages from the conference are presented below:

Networks

Core message: Networking between central regional agencies is the basic requirement for the development and implementation of successful human resources strategies.

3.2 Persons from numerous projects stated that they consistently networked with all of the relevant regional protagonists or partners from the fields of business, science and politics – something that they saw as a vital requirement for the success of their strategies. Networking facilitated jointly developed strategies that could be implemented through existing relationships, and which simultaneously achieved a broad regional consensus. The projects showed that there are tried and tested models for strengthening human potential, through the involvement of all local protagonists, companies as well as their employees, training centres and research institutes as well as consulting companies and protagonists or partners in associations, social-commercial establishments, and business start-up centres, etc. Dortmund has played an important role in initiating, moderating and ‘matchmaking’ in these projects.

European Citizenship

Core message: A successful orientation point for these human resources strategies can be the concept of “European Citizenship”.

3.3 ‘Lifelong learning’ is a key theme for projects in the area of human resources. Many cities follow the European Citizenship principle - in the face of a transition from an industrial society to a knowledge and service society, there is great importance in promoting self-management skills and skills for taking responsibility for one’s own actions. Employability and learning skills, as well as skills for coping with one’s own life need to be specifically developed.
Munich: “München-Kompetenz” – an EQUAL-Project

Economic structural change has led to fundamental changes and polarisation tendencies for the Munich employment market. Munich’s strong concentration of high-tech companies creates a great need for highly qualified staff (particularly in the IT field), while at the same time, people with low level qualifications find access to the employment market problematic. Demographic change has also led to a growing demand for workers in the care sector.

In response to this challenge the Equal Project München-Kompetenz has been developed. The project is made up of a cross-sector skills network of 14 employment policy institutions from the Munich area that is active in 5 focus areas: start-up support, lifelong learning, school & working world cooperation, company networks, and good governance in Munich. One aim is to provide professional and social integration for disadvantaged target groups. Through these mutually complementary resources project participants develop new skills for improving their employment chances in the Munich employment market. The projects, carried out as part of Munich Kompetenz, are aimed at groups such as: start-ups, migrants, the unemployed, those threatened by unemployment, small and medium sized companies, as well as Munich Hauptschulen (secondary schools) and their pupils. The consulting and qualifications services pick up on the needs of the Munich employment market and develop innovative methods to facilitate the development of relevant skills within Munich’s labour-force. Where these projects succeed, the ideas are then put forward for general funding as part of Munich’s employment market policy. The project is then managed and supported by eleven strategic partners (including the City of Munich, National Labour Agency, Chamber of Industry and Commerce), who take up a special role in the project association group, both as participants and recruiters for these projects.

Dortmund: LernDo! an initiative for living, learning and working in Dortmund.

LernDo! is a best practice model which develops and implements the practical realisation of lifelong learning. In LernDo! normal and vocational schools as well as continuing education providers and job creation companies, partner with businesses, employment policy-makers and the science community, in a regional network. The aim is to bring together existing experience, initiatives and resources, to develop new ideas, and to contribute to the further development of Dortmund’s educational offer. This might mean for example improvements in assistance with life transitions such as from school to job, from learning & continuing education to work and the main phases of working life, and from employment to retirement.

The model project “school in the city districts” connects together innovative school developments with improvements in local infrastructure and services. The aim is to enhance cooperation and networking between youth-work, school, business, and educational and employment establishments, to form a locally responsible community for young people. A first example of this can be found in the city district of Dortmund-West.

The LernDo! project is innovative. Over the last two years LernDo! has developed into a lively communications and cooperation platform for all of the activities and initiatives that are taking place, which have the aim of working towards the concrete practical implementation of the vision of lifelong learning – this vision is something that needs to find expression within the widely varying contexts, lifestyles, and environments within the city.

LernDo! sub-projects include: careers advice; an advice and skills centre for young migrants; learning for integration into work for those with no formal qualifications; mentoring for young/old; “school in the city districts”; the Dortmund Learning Centre.
The role of companies

Core message: companies are indispensable agencies for implementing regional human resources strategies.

3.4 The Dortmund conference focused on training and qualifications as a key component of city-region competitiveness. It was clear that this is not just a social or educational theme, but that it is an extremely important theme politically and for economic competitiveness. Staff and companies invest together in their joint futures. The city and the region can support this process whenever they can and promote initiatives and specialist staff development. The significance of the role of companies in the implementation of qualification and training programmes is not sufficiently recognised.

3.5 Examples of issues to consider include:

- the scope that exists, for improvement in the competitiveness of small and medium-sized enterprises;
- the way in which employees can shape personnel development in companies;
- the way in which investment in education for young people, can facilitate future entrepreneurship and entrepreneurial culture.

Dortmund: Prof. Dr. Rolf Reppel, Management Board at ThyssenKrupp Services: Fit for Europe? Demand for a competitive personnel policy

Professor Reppel identifies a future-oriented personnel policy as being a highly significant requirement for the competitiveness of a company. In his opinion, personnel policy must play a key role for actively shaping company development. In the long run the management and the staff's readiness and ability to perform are the decisive factors for success in companies. He also believes that a participatory future-oriented personnel policy, can result in competitiveness in labour cost productivity.

Dortmund: Vive la différence! Synergies in organisational and personnel development through productive use of differences

To tap into the full potential of personnel is a principal task for most organisations and companies. Often however a lot of potential that is urgently needed for generating innovative products and services, and which could potentially open up new markets, goes untapped. Within organisations often one can observe patterns within the employment structure with persons from particular cultural backgrounds, genders, or generations, being concentrated in particular roles or at particular grades. This project sought to draw synergies from employees from a wide variety of cultural backgrounds, genders, and generations, and to use their talents for company development. Concepts of diversity management were developed, and then tried and tested in a Dortmund company for micro-optics. After the project, the results were developed further and then made available for other companies. The organiser of the project now markets the findings for medium-sized and large companies as well as for further education establishments.
Project preparation

Core message: Municipalities have an important coordinating and moderating role in initiatives for human resources

3.6 The city can play an important moderating and co-ordinating role with regard to new initiatives in the area of human resources, and can also support new initiatives through its network structures. Any new initiatives should be closely scrutinised and subject to as precise analysis as possible of:

- the training situation of young people
- the quality of school and after-school educational activities
- and, above all, the training and qualification needs in companies at both employee and management levels

Requirements for the day-to-day operational reality in business

Core message: New ideas have to be based on operational practice

3.7 A series of practical pilot projects have succeeded in developing some new and locally effective human resources instruments, which have originated in and from the daily reality of companies:

- in the field of personnel work, business practice in the region has been enhanced, and best practices in personnel work have been brought into the public arena, through a combination of competitions and through consulting. To further promote these best practices, each year one company receives an official award for its work in this area.

- In another exemplary project (KPFM,) specialists from a variety of fields give continuous support to participants, motivating them to explore new ideas for company modernisation, these always involve employee participation. Such approaches have been carried out in a number of companies.

- company potential analysis tools – these are particularly used in small and medium-sized enterprises (SMEs) to initiate modernisation. Personnel development and/or the ensuring staff have specialist skills are frequent themes.

- individual initiatives for attracting workers – in situations where there is a critical regional shortage of specialist staff, cities can develop sector specific initiatives.

Yorkshire: Construction JOBMatch South Yorkshire:
The building sector in the United Kingdom has enjoyed great demand in recent years. The region of South Yorkshire responded to this with the JOBMatch project. This project has enrolled 500 unemployed people in a two year training programme. During this time workers are on the payroll in the same way as regular employees. All of the trainees finishing the programme receive a national building sector qualification.

Integration

Core message: Regional human resources strategies must integrate less educationally qualified and oriented groups

3.8 There are numerous examples of projects dealing successfully with the challenges of social exclusion in the professional and educational arenas. Projects include ones seeking to (re-) integrate persons from marginalised groups into employment, and projects that are seeking to increase basic skills levels, for example through qualifications, or through assisting people in dealing with social change.
3.9 Although there are numerous good examples of projects that focus on the integration of the less educationally-minded sections of the population, Dortmund’s research has identified no consistent universal concepts.

4. Conclusion

4.1 The Dortmund conference confirmed many of our basic assumptions:

- Human resources strategies are of central significance for city-region development.
- Networking strategies and the integration of central – and above all company – partners are essential.
- The everyday reality in companies forms the basis for the development of regional human resources strategies.

4.2 It also underlined some other themes:

- The need to assist less educationally-minded sections of the population – this is a need that is likely to increase rather than decrease in the future.
- The importance of learning from other cities, through comparative discussions, benchmarking, monitoring, and the sharing of best practice.
4.3 The Lisbon strategy, which focuses on securing and strengthening human capital as a basis for increased city-region competitiveness, highlights the way in which human capital at the individual, the urban/regional, and the European levels, are interdependently linked to one other. Since the 1990s the European Social Fund (ESF) has given huge financial support to strategies and projects at the local and regional levels, which have facilitated progress in the area of human resources, which is a key policy focus for modern city-region economic development policy. The vast majority of the example projects presented here have been in part funded by the ESF.

4.4 At the European level the funding framework for 2007 – 2013 has already been set. The operational programmes at the regional level are still to be drawn up in many places. European funding under the new Objective 2 “Regional Competitiveness and Employment” programme link together European Regional Development Fund (ERDF) measures with the European Social Fund. For cities such as those that have taken part in the COMPETE network, this funding should provide opportunities for carrying out further research and best practice sharing into the area of human resources.

4.5 The cities and their economic and social partners are striving towards a high level of co-determination as regards the alignment, distribution and use of funding streams. However this is often rejected at the regional level. Although, it is the city-region level that can ensure that the most suitable strategy measures from the ESF and the ERDF can achieve the best results when planned together.

4.6 Pooling together the various different measures and programmes contributes towards strengthening a cooperation and competition culture among the European city-regions. The implementation of the Lisbon Strategy, the creation of “more and better jobs” in a knowledge-based European society and economy, promoting self-determined and creative European Citizenship, and other such goals, will be decided in the cities and regions of Europe. Strengthening the competitiveness of Europe as a whole will be achieved by strengthening European city-regions.

4.7 Exchanging good practice, ideas, and experiences, for example through the creation of city/regional ‘synergy platforms’ between European cities and regions (similar to the successful European technology platforms), is of central importance in creating a more economically competitive Europe. Funding programmes such as the new Objective 3 (Interreg IV) together with Progress and lifelong learning will be very important for city regions that want to pursue these best practice sharing approaches, as financially, they are not in a position to undertake these European co-operations without financial support.

4.8 All of the programmes and activities mentioned so far, share the common theme of pursuing the development and promotion of creative urban people, whose skills form a fundamental basis for the competitiveness of a city-region, independent of economic phases or market developments, and who are able to cope with structural changes creatively, quickly and/or flexibly. Within the framework of European policy the focus of policy should be more on individuals rather than institutions, particularly in accordance with the “European Citizenship” concept, which focuses on: promoting self-management skills (including learning skills, employability, and life skills), and empowering people to take responsibility for themselves.

4.9 Programmes aimed at the individual, based on the European Citizenship concept, and also programmes aimed at the regional level, should also be supported by European policies, such as:
• Strengthening the regions: Cities and regions, in recognition of their role in driving forward competitiveness, should be seen as a specific cross-cutting theme for policy, in a similar way, to the way in which SMEs are viewed. Consequently European programmes and measures (e.g. PROGRESS, lifelong learning etc.), should provide bundles of European incentives for cities and regions, including funding to make possible comparisons between different cities, and to facilitate shared learning, and to assist in the implementation of specific strategies and measures, that would foster an atmosphere of continuous human resources development across-Europe.

• Monitoring and benchmarking for the regions: In order to create incentives and orientation values for the regions/cities, European exchange processes should be institutionalised at an EU level within the framework of a “European Benchmark”, particularly in the field of human capital. This could be based on an enhanced “urban audit” for comparing cities according to a monitoring system and extending it through a learning city network, to provide a European system for continuously testing the effectiveness of targets, strategies and measures introduced to create synergies. Existing platforms, such as EUROCITIES or projects such as COMPETE, could form the initial building blocks for such networks.

• Support for the development of sustainable urban/regional systems for centres of lifelong learning and a common European qualifications framework which cross and integrate different fields of education. Qualifications that are oriented towards the needs of the economy should be developed promptly and they should be comparable throughout Europe. The lack of specialist staff should be eliminated by adapting qualifications. People should be assisted to become more mobile (e.g. through training in intercultural skills). The skills of individuals for coping quickly with critical life events must be enhanced and developed. Self-employment and an entrepreneurial spirit should be promoted. The goal of promoting independence in living and working environments corresponds closely to the development of a European system of lifelong learning.

• Policies for life transitions: Policies targeted at helping people with life transitions within education, work, and different life phases should be looked at more closely. These should start before the transition from school to work and/or the start of initial training. If these critical transitions are looked at more closely it is possible to minimise the social exclusion of specific population groups, for example women, young people without training/education, older employees etc.

5. Conference declaration:

5.1 Improving competitiveness and cohesion in Europe is not possible without prosperous cities. The cities with their infrastructures for business, research, development and training are - and will continue to be - the main centres for innovations, socio-economic growth and integration in Europe. Cities are the engines of the regional economy and of European competitiveness. In view of the enormous challenges posed by the current transformation, the significance of cities is increasingly contradictory with an increasingly difficult financial situation and the growing burden of additional tasks.

5.2 There are a wide variety of factors which influence the innovative and competitive potential and performance of cities. Among the most important factors are people and their skills. It is people who push economic development forward with their work and creativity.
Neither research and development nor knowledge transfer activities and their subsequent transformation into economic goods are possible without qualified people. It is precisely this human factor that remains the central strength behind the creation of prosperity for city-regions in this increasingly knowledge-based society. The existence of well-trained, creative people is a crucial advantage for locations in the knowledge-based economy. The existence of a creative environment has a decisive influence on the competitiveness of regions and cities. In this respect, the ability of a region to educate well-qualified, creative people, to develop them further, and to retain them long term, can be of great significance for competitiveness.

5.3 Available human potential must be fully utilised, and because of the demands of accelerating development in society, must be continuously developed. In the face of the dramatic changes in the modern working world on its way to becoming a knowledge-based economy, new concepts and strategies are necessary. Modern work needs modern structures, balanced forms of regulation and qualification concepts within which potential can unfold and its practical effectiveness develop.

5.4 In the efficient use of existing potential, Europe shows clear disadvantages in comparison with the USA or Japan, something that weakens Europe’s competitive position. For example, in comparison to the USA or Japan the ratio of scientists to the total number of employees is much lower in Europe. This is particularly true in the economic sector. An important reason for this is the low ratio of women in this economic sector. The process of demographic development threatens to speed up this development process. The result of this development could increase the risk of a brain drain away from Europe.

5.5 Transformation in the modern working world to a knowledge-based economy raises major challenges for cities, in particular the problem of exclusion from the labour market for certain groups. The collapse of entire sectors and the dramatically changing demands of the new, often knowledge-based sectors create significant problems with regard to integrating people into the workforce, who require training, perhaps after having already worked for many decades in other sectors. Previous concepts and strategies, which have aimed at reintegrating these groups of employees, now have little effect. The increased importance of qualifications and training for integration into the workforce results in increased polarisation and exclusion effects for certain groups, something that is particularly concentrated in cities.

5.6 Cities cannot accept this situation. The exclusion of groups within society has major negative consequences, including the disintegration of entire city districts and xenophobia, these are unacceptable. In the medium term these problems represent a serious threat to the development possibilities and competitiveness of a city. New strategies need to be developed and implemented, which can tackle the challenges of exclusion.

5.7 Appropriate political concepts must attempt to find a balance between developing existing economic potential and dealing with social problems. Sharing experience comparing the effects of different strategies on economic competitiveness and social integration represent a central requirement for future projects at a European level.

5.8 The experiences and the projects discussed at the Dortmund conference highlight some of the areas that more detailed collaborative research efforts could focus upon.

These include:

- Promoting SMEs, business start-ups, and entrepreneurship, to strengthen city performance in key growth sectors.
- Providing education and qualification programmes that are aligned to the knowledge-based economy.
• Pursuing strategies to maximise the potential of all of the workforce (e.g. female participation, older workers, etc.).
• Opportunities for setting up sector-specific qualifications and training, with medium level regional influence.
• Company policies to promote and support learning and to increase support for life long learning among staff.
• Integrating all activities that provide support during the changeover from school to apprenticeship/training and work as well as other career orientated programmes.
• Strategies for bringing together all partners or protagonists, including companies, to develop common regional strategies for education and employment and to promote a skilled workforce, with the following aims:
  o Developing a regional early warning and monitoring system
  o Assuring the status and sustainability of regional educational structures
  o Proactive development of strategies and programmes
  o Strategies and measures to help those at risk of exclusion from the labour market e.g. the unemployed, those without formal qualifications, those needing assistance in making the transitions between different life stages, etc.

5.9 There is still much that European cities can learn from one another in regard to human resources policies. These exchanges need to be facilitated in order to develop integrated strategies and approaches which use existing human resources potential and address worsening social polarisation and exclusion processes. Given increased competition, mutual observation and learning processes which promote the sharing of successful models must be a priority for policy makers. The reports and contributions at the Dortmund conference show that we know a lot, but not enough, about coping with the challenges of the current transformation processes. Any shared learning from other European cities, must recognise the extent to which education and skill training in cities are embedded in their distinctive national systems, and the great influence this has on their competitiveness. More effort is required to analyse these complicated relationships and identify the factors that contribute to the success of particular strategies and concepts. The knowledge shared at the Dortmund conference provides an important stimulus to continue developing strategies and support for European cities as they share best practice. This shared learning can support cities as they address the enormous challenges presented by the current economic transformation processes, making an important contribution to strengthening cities as main centres for innovation, socio-economic growth, and integration.
Chapter 4

Creative Industries and Urban Competitiveness:

BARCELONA

Francesc Santacana, General Coordinator of the Metropolitan Strategic Plan of Barcelona and Monica Madrigal, Metropolitan Strategic Plan of Barcelona
1. Introduction

1.1 Barcelona’s theme in this network was The Impact of Creative Industries on City-Region Competitiveness. The theme was chosen for two main reasons. Firstly, Barcelona has a long tradition in creative industries, especially in the fields of book edition, publicity, architecture and design, and historically the city has been a cultural crossroads. Secondly, the creative industries theme is central to the debate that has been going on in the city in recent years about which strategy to follow in order to consolidate the transition from an industrial economic structure to an innovative knowledge economy.

1.2 Deindustrialisation in Barcelona started in the 1980s and continued throughout the 1990s and the 2000s. This process has particularly affected low and medium technology manufacturing sectors which are decentralising their activities to Asia and Eastern Europe. Today Barcelona, like most metropolises in Europe, is mainly a service economy – nearly 80% of the employed population work in the service sector. However this process of economic tertiarisation has resulted in an economic base with a significant percentage of low-added value services that do not require a high-skilled workforce. The challenge for Barcelona is to be able to consolidate a development based on high-value, knowledge-intensive services that attracts talented people to the city and serves as a vehicle for innovation.

1.3 In an effort to generate a public discussion about how to orientate the city’s strategy, the Metropolitan Strategic Plan of Barcelona had already carried out discussions with European, national, and local partners, and with numerous experts. These discussions have emphasised the following:

- Barcelona should not pursue a strategy based on attracting high-tech manufacturing activities since usually these kind of activities do not tend to go to places with an industrial tradition. They look for new locations.
- However Barcelona was very well placed to attract knowledge-content services, which generate the best-paid employment and serve as vehicles for innovation due to their demand for high-technologies.
- Knowledge-content services integrate what has been called the “quinary economic sector”. If the tertiary sector is defined by personal services (retailing, restaurants...) and the quaternary sector by services for companies (banking and finance, transportation...), the aim of the quinary sector is to create, increase and maintain human capital.
- Activities contained in the quinary sector are: research and education, health care, professional services, creative industries and recreational services.
- The Metropolitan Area of Barcelona has an important base of quinary services. Promoting and expanding these services will facilitate the high-technologies and the knowledge needed to transform the economic base.

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Source: Lasuén and Baró (2005)
1.4 Given these initial reflections, Barcelona decided to focus its work on one specific type of the quinary services: the creative industries. This theme was also relevant to the policy discussions going on at that time, since the Barcelona City Council was just beginning its discussions about its 2nd Strategic Plan of Culture.

1.5 At the Barcelona COMPETE conference two main questions were posed:

- What roles can creative industries play in our cities as drivers for social and economic competitiveness?
- Are our cities well placed to allow creative industries to flourish?

2. The creative economy

2.1 Traditionally activities associated with culture have mainly been considered for their community service function. However in recent years an increasing number of cities have tried to define themselves as “creative” and emphasize the value of creativity as a key asset in their development strategies. This would include “Creative London”, “I Amsterdam”, “Strategies for a Creative City: Imagine a Toronto”, “Creative Bristol”, “Metropolitan Area of Barcelona, territory of creation”.

2.2 Those strategies are consistent with the recent available data. For example, the European Spatial Planning Observatory Network (2006) found that despite great diversity across Europe, a dominant pattern can be found as regards to the cultural workforce. The greatest shares of cultural employment are found in urban regions, many of which are capitals. The development of creative industries is therefore above all, an urban phenomenon. Creative industries directly generate the most and best-paid employment in the most developed cities and expenditure on cultural goods and services is the second or third largest category of household expenditure in many developed countries.

2.3 Despite this general recognition about the positive impact of creative industries on urban economies there is however little agreement on how to define these industries and which activities fall into this category. Cultural industries, creative arts, arts industry, and creative industries are all names that have been interchangeably used to define them, creating some confusion in the debate. The conflict between definitions is partially related to differences between the cultural sphere, on the one hand, and the economic sphere on the other hand.

2.4 In his book Creative Industries John Hartley (2005) tries to overcome partial perspectives and offers a definition that integrates the cultural, the industrial and the technological dimensions: ‘The idea of the Creative Industries seeks to describe the conceptual and practical convergence of the Creative Arts (individual talent) with Cultural Industries (mass scale), within the context of New Media Technologies (ICTs) within a New Knowledge Economy, for the use of newly Interactive Citizen-Consumers’ (2005:5).

Table 2. The Creative Industries


3. Culture and creativity in Barcelona’s development

3.1 Barcelona local authorities believe that creative policies benefit not only the creative industries but the competitive edge of the city in general. Operating on this assumption the whole city has been essentially considered as a cultural product. Culture and creativity have played a central role in the city development during the last 20 years, influencing the urban, economic and social landscape.
3.2 During the first part of the 1980s Barcelona undertook a renewal of public spaces in which a host of well-known artists and architects were involved, including Antoni Tàpies, Joan Miró, Joan Brossa, Eduardo Chillida, Anthony Caro, and Richard Serra. Particular attention was paid to peripheral neighbourhoods that had been recently subjected to major urban reforms. Taking care of the artistic expression in these areas was a way to increase both their centrality in the city and dignify them with high quality artworks.

3.3 In the 1990s, once the physical transformation of the city and the big infrastructures accompanying the 1992 Olympics had been accomplished, a major goal of urban development was to promote economic and social change, especially in the poorest areas of the city. And again culture played an important role in the process of catalysing positive dynamics. Key cultural equipments were strategically located in deprived neighbourhoods and used as flagships for change. That is the case with the Barcelona Museum of Contemporary Art (MACBA) and the Centre for Contemporary Culture (CCCB), which are located in the Raval area (see case 1).

3.4 In the 2000s urban development is being driven by a focus on knowledge activities. Creativity is not so much conceived as a tool for urban change, but as a goal itself. It is considered to be a central element in the promotion of new businesses and the emergence of new forms of managing knowledge (see case 2). In these years the Barcelona City Council has developed a policy of support to the creative industries based on five key elements:

- **Adding value** to those traditional industries with an important cultural and economic weight but which occupy a secondary role in the social perception, like the book industry.
- **Cooperation** with the private sector (e.g. Parc Barcelona Media or the future Barcelona Design Centre).
- **Connectivity** of the different cultural realities, initiatives and businesses going on in the city. This included for example, preparatory works on the Strategic Plan of Culture 2006, through discussion roundtables, which included artists, companies, private institutions and local authorities.
- **Risk sharing** with the private sector, either through direct financial support to innovative projects or through new financial instruments, for example, development of a risk capital fund for the creative industries.
- **Internationalisation**, through the attraction of international artists; support to international events (LOOP Video art, Sonar festival); or development of specific promotion instruments for example, Barcelona-Catalunya Film Commission, future International Connection Office.

**Table 3. Barcelona cultural economy in figures**

- 28% of the employed population are working in the cultural industries sector
- 7% of the city’s GDP comes from culture
- 7.8% of the municipal budget allocated to culture


3.5 Many of the recent creative projects are being located in old industrial areas. These areas are being renovated on the basis of mixed use – business, research, housing, and leisure. Relationships between different types of actors and activities are seen as a key factor in creating a positive atmosphere for innovation and also as a way of avoiding specialisation of urban space and maintaining community life.
3.6 However, even though the main focus currently is on creativity as a motor of innovation, Barcelona continues to emphasise the part creativity can play as an incentive for urban renewal. This can be seen from some of the most recent projects, including: renovation of Santa Caterina market by Miralles and Tagliabue in the old medieval centre; Jean Nouvel’s Agbar Tower for the private company Agbar in the district 22@, the former industrial area; or Frank Gehry’s tower, next to the future high speed train station in Meridiana district, which is in need of profound reform.

3.7 Despite these achievements, Barcelona still faces cultural challenges in five main areas:

- Improving overall public awareness of the importance of culture and improving the visibility of culture as a quinary sector with great potential;
- Bridging the gap between cultural creation and its social impact.
- Intensifying cooperation between creative companies, universities and the public sector;
- Designing better strategies to strengthen the production and distribution of the creative industries for international markets;
- Improving the integration of migrant people into a shared civic culture.

Case 1. The Raval area: Creativity a driver of urban renewal.

The Raval district is located in the centre of Barcelona, close to Las Ramblas. In the past it was a poor and marginal area, best known for its “night life” (pubs, prostitution, drugs...). In the 80s the Barcelona City Council initiated a resolute renewal policy of the district, opening public spaces, rehabilitating housing and allocating public facilities.

Two key developments were the Centre for Contemporary Culture (CCCB, 1994) and the Museum for Contemporary Art (MACBA, 1995). Besides leading an important physical transformation in the area, both institutions have changed the citizens’ perception about Raval, and have attracted other educational and cultural institutions, and have stimulated the emergence of several private initiatives.

Today Raval has become a social and cultural laboratory. It is one of the city districts with the highest proportion of migrant people (especially from Africa and Asia) and at the same time with the highest concentration of cultural institutions.

A network of educational and cultural institutions

Raval is home for the knowledge axis formed by the MACBA, the CCCB, the FAD, the Barcelona Institute of Culture in the Virreina Palace, the Centre of Cultural Studies and Resources, the CIDOB Foundation, the Library of Catalonia, the University Ramon Llull, the Liceu Opera House, the Taller de Músics, the Santa Monica Art Centre and the Maritime Museum. In October 2006 the Faculty of Philosophy and the Faculty of Geography and History of the University of Barcelona moved into the district and in the near future the Film Library of Catalonia will do this as well.

Amongst the former institutions it is worth highlighting the FAD and Taller de Músics:

FAD is a private, independent, non-profit association for the promotion of arts and design created in 1903. Since 1997 it is located in a former convent (Convent del Àngels). The proximity to MACBA and CCCB allows the FAD for some locational advantages like, for instance, sharing some facilities. FAD is an association which expresses the self-organisation of the sector. The main goals of the institution are: being an interlocutor with public administrations on behalf of the architecture and design sector, strengthening contacts between designers and new talents, and bringing the creative sector and companies together. www.fadweb.org/
Taller de Músics is a private music institution created in 1979 with the purpose of promoting the development of jazz and modern music. At present Taller de Músics is not only a music school, but also a management and production department, a recording label, and a venue for live music. Its most distinctive feature is the synergy between novel musicians and experienced ones (top level musicians that combine their professional career with teaching activities). From the beginning Taller de Músics has had a clear vocation of integration in Raval. In order to expand its facilities it has always searched for new spaces nearby. Up to now it has renovated old properties in three convergent streets and has seven different premises and a “public street patio” in Requesens street. www.tallerdemusics.com

Creative social initiatives

In the last years several community initiatives have appeared in Raval with the aim of reinforcing the visibility of the people living in the district and favouring socially inclusive policies. Some of these initiatives have used culture, creativity and technology as a means to achieve their goals.

Ravalnet is an e-network of citizens and local associations from Raval who have created an internet portal to offer information about the day-to-day life of the district. Ravalnet wants to facilitate access to ICT for all citizens and guarantee a social use of the internet. One of the most important projects of Ravalnet is RavalMedia, the community media space in Ravalnet, which has 3 components: Radialnet, a "community radio" used by citizens of all ages and nationalities; Raktvteb, a space dedicated to the activities of young people; and El Espacio, a space for exhibiting the work and artistic production of associations, schools, and other entities. www.ravalnet.org

Tot Raval is a foundation created in 2001 by a group of persons and institutions of Raval with the aim of becoming an interlocutor with public administrations and helping to eliminate the stigmatisation of the district. Tot Raval focuses in 3 interconnected areas: social and educational, cultural and artistic, and economic and commercial. As regards to the cultural and artistic area, it is worth mentioning initiatives such as the Plan of Culture in Raval (an arena for discussion about the 25 specific proposals that came up from a participative workshop) or the marketing and communication campaign Ravalejar (“Ravaleting”). This campaign was launched in 2005 and has been a great success. The expression “ravalejar” indicates the action of walking or living in Raval. Many restaurants and shops have indeed incorporated this brand into their products. www.totraval.org

Creative commercial initiatives

The cultural vitality of the district has also stimulated the emergence of several creative commercial initiatives, such as the bookshop Central, the hotel Camper (which belongs to the shoes brand), the Jazz & carrer festival (jazz in the street, promoted by the association of small businesses l'Eix Comercial del Raval) and many others.
Case 2. Barcelona: Creativity as a driver of innovation

**District22@** is a project consisting of 200 hectares of industrial land in Poblenou that have been transformed into an innovative productive district for new-generation activities within the scope of education, creativity and innovation. **Parc Barcelona Media** is one of the most distinctive projects in the 22@ district. The park, still in construction, is a three-leg project promoted by the Barcelona City Council, the audiovisual company Mediapro and the Pompeu Fabra University. The goal of the park is to become a combined space for production and research in the audiovisual sector. [www.22barcelona.com](http://www.22barcelona.com), [www.parcbarcelonamedia.com](http://www.parcbarcelonamedia.com)

**Iniciativa Barcelona Creativa** is a programme promoted by the Barcelona local development agency, Barcelona Activa, with the purpose of promoting growth in the creative industries sector. The programme contains a set of different measures: promotion of entrepreneurship in the creative industries, support for the creation of new companies, attraction of creative talent, internationalisation and financing. [www.barcelonaactiva.es](http://www.barcelonaactiva.es)

**Creapolis** wants to be a new-generation park of creativity. The most distinctive feature of this project is that, unlike the majority of existing parks, Creapolis is not promoted by a university, but by a business school - ESADE. The goal of this project is to offer an innovative habitat to link research, entrepreneurship and business by detecting opportunities and attracting non-tested, young business projects. [www.esade.com](http://www.esade.com)

**CosmoCaixa** is the new science museum of Barcelona. It was promoted by La Caixa savings bank’s foundation and it opened its doors in 2004. Last year it was awarded the accolade of Best European Museum 2006. CosmoCaixa was born as a modern science museum. Its success is measured by the impact contents have on visitors. In CosmoCaixa it is possible to find an exact reproduction of more than 1,000 sq metres of a flooded Amazon forest or a geological wall where every cut shows a specific geological structure. [http://obrasocial.lacaixa.es/centros/cosmocaixabcn_es.html](http://obrasocial.lacaixa.es/centros/cosmocaixabcn_es.html)

**Terminalb** is a project promoted by FAD association, Caixa Catalunya Foundation and the Catalan Institute of Cultural Industries. The project was launched in June 2006 as a free, public database of creative professionals working in the city. It aims at “featuring the best creative work in design, architecture, image and communication in Barcelona”. Terminalb is a virtual space where everyone can sign in and become a member. [www.terminalb.org](http://www.terminalb.org)

### 4. Core debates

4.1 This discussion of Barcelona’s strategies, achievements and challenges was complemented by discussions of other cities’ strategies to promote their creative sectors: Lyon, Munich, Rotterdam, Liverpool and Vienna. Three main core debates arose in our work: the meaning of creativity; the impact of creative industries on city-region competitiveness; and the conditions for creativity.

**What do we mean by creativity?**

*Core idea:* *Creativity is not only about the creative industries, nor is it about a particular economic sector - rather it is about a positive attitude towards innovation and entrepreneurship.*

4.2 Creativity has been traditionally associated with the activities in the artistic sphere. Even when it has been considered in economic terms, it has still remained close to what is known as the ‘culture’ sector. Our work has shown however, the dangers of viewing creativity in a very restrictive sense. Creativity is not only about the creative sectors but about all sectors. Creativity is the ability to produce movies for mobile telephones, but it is also the ability to design and build a brand new car.

4.3 Manufacturing activities should not be excluded from the policy discourse on creativity. Throughout history industry has had to be creative in order to survive new economic contexts. The situation is not very different today. It is difficult to find an industry whose future development is not dependent on creativity. In fact it has been shown that companies who use design at a very early stage in product development have generally higher turnovers*.
4.4 However, if the focus is not on the creative industries per se, but on the whole economy, then the subject of the analysis moves from the creative sectors to the “creative class” - occupations and professions. What really matters is the nature of jobs and the role of knowledge in the generation of content, independently of whether these occupations are in the creative sectors or not. Our work has underlined that creativity is more an attitude than a sector. Creativity has to do with a positive climate towards innovation, entrepreneurship and risk.

Impact of the creative industries on urban competitiveness

Core idea: The creative industries have positive spin-off effects on other sectors, strengthen social inclusion, act as catalysts of urban renewal and increase the attractiveness of cities.

A. Creative industries and economic competitiveness

4.5 The ICT revolution has been a major driver in the growth of the creative media industry - music on line, e-books, videogames. But at the same time further developments of technology – MP3 devices, mobile technology - will be in part determined by the attractiveness of the contents produced by the creative industries. In this context, creative industries have become an important source for new businesses, employment, exports and spin-offs to other economic sectors:

- Creative industries are heavily dependent on knowledge-intensive services, such as finance, legal, accounting, management or marketing. They also transfer knowledge to other sectors, for example the tourist sector.
- The creative sector has an important base of micro and freelance companies, many of which are created by people in the “informal creative classes”. These micro companies are flexible and dynamic, and many of the innovations launched by multinationals stem from their ideas.
- Creative industries are more difficult to relocate in new areas than other economic activities since cultural heritage, symbolism and social values play a central role both in the generation of their content and their consumption.

Case 3. Munich: Creativity as a driver of innovation

Munich holds a strong position in arts, music, culture, aesthetics and design industries and especially in the media sector. These are growing sectors in Munich and their contribution to Munich’s economic development is significant.

The importance of creativity and creative people however is not limited to these sectors. Munich’s leading position in high-tech industrial branches (e.g. the engineering sector, automotive industry, optical industries, the aerospace sector, medical technology, biotechnology, and the City’s expanding service sector) is based on knowledge and creativity. Knowledge and creativity are seen as the decisive resource for ongoing innovation and are crucial in the context of global competition.

So Munich’s focus on creativity is not limited to the cultural industries but covers all creative occupations and professions in technology-based industries, the knowledge based professions of health care, finance and law, research and development, and science and engineering activities.

Munich’s creativity strategy is focused on attracting talent and on improving competence for innovation. Important elements of this strategy include:

- Strengthening the knowledge base
- Promoting the application of knowledge
- Activities to attract and retain talented people
- Strengthening the organisational capacity of the region through the furthering of networks of actors from industry, science, politics and society
- Measures to improve the creative and inspiring urban environment and to maintain a diverse and tolerant city.
4.6 In recent years cities have established a variety of initiatives to promote the creative industries: comprehensive programmes of support to companies (e.g. Creative Industries Development Service in Manchester), cluster strategies (e.g. District 22@ in Barcelona), facilities for entrepreneurship (e.g. Cable Factory in Helsinki) or brand programmes (e.g. Lyon Vision Mode).

B. Creativity and social cohesion

4.7 Cultural and creative activities have effects on the social composition of the city and on community values. They facilitate citizenship-building and help to create tolerant societies by promoting place-making engagement and providing an opportunity for personal development and social interaction. However a major challenge for cities is to ensure that this place-making engagement is not disconnected from the people actually living in the place. Promoting creative policies also means guaranteeing the conditions that allow creativity to flourish inside communities. Unfortunately, sometimes creative policies are only focused on big projects, renowned artists or dominant cultures.

4.8 In recent years different initiatives have emerged in marginal areas of cities in an effort to pursue culture as an instrument for building sustainable communities. Liverpool is an example of a local administration that has taken the leading role by using a big international event as an opportunity to catalyse social change.

Case 4. Lyon: from consumer goods to creative industries

In January 2007 the Grand Lyon authority presented the new international brand of Lyon: Only Lyon. This brand recognises four economic sectors as poles of international excellence, two of which are in the field of the creative industries: “ICT and digital industries”, and “fashion, creation, and textile”.

Lyon’s support of the creative industries has been developed in close connection with the existing economic base. Lyon’s definition of the creative industries embraces not only cultural products, but also personal goods and consumer durables: jewellery, cosmetics, fashion, textiles, appliances for networking, and cinema, music, and media for the cultural industries. All together these activities represent 70,000 jobs and 8,000 companies.

In order to support entrepreneurship and growth in these sectors, Lyon has adapted a three-phase methodology: project launch (mobilisation of industrialists), qualification of creative industries in the territory (quantitative and qualitative study of companies); and project deployment led by industrialists and supported by local authorities.
Case 6. Rotterdam and entrepreneurship

The creative sector in Rotterdam is booming even faster than in Amsterdam. This is mainly due to the availability of cheap space in combination with an atmosphere for experiment, innovation and an entrepreneurial mentality.

In order to exploit this trend to the maximum, the Rotterdam Development Corporation is developing a policy that aims to remove obstacles for entrepreneurship, offer a better service to the sector and create spaces for entrepreneurship.

In terms of spatial policy, three different urban spaces are being re-thought of as “creative areas”:

- The city centre for high brow creative activities and meeting places
- Marginal neighbourhoods for small entrepreneurs
- Former industrial and port areas for companies and activities that need large spaces or that are in conflict with urban life like noisy activities

At present Rotterdam is undertaking a profound transformation of the old port area that is expected to take 10-20 years. During this period Rotterdam wants to use the creative sector to keep this area alive. The real estate in the area is partly owned by the port and the city authority, who will keep it in their possession and they will let it out under cheap rentals. In this way both the economic as well as the spatial goals will be achieved.

Case 5. Liverpool 2008 European Year of Culture: The art of inclusion

Liverpool is well-known for being a city with an important tradition in the creative industries. Given such strength, Liverpool Council is seeking to use creativity as a tool to build a sustainable agenda, reinforce social cohesion and restore confidence, particularly amongst young people with less opportunity for education.

Liverpool First’s Vision:
Building a more competitive economy, developing healthier, safer and more inclusive communities and enhancing the potential of every citizen.

Liverpool Vision for 2008:
- Place arts and culture at the heart of regeneration
- Reinvigorate the economic, physical and social fabric

The European Year of Culture 2008
This international event is seen as the rocket fuel needed to accelerate progress towards achieving the community vision. Initiatives linked to the European Year of Culture seek to embrace the city’s population in a wide and inclusive way, and aims to utilise culture as an essential element in city place-making. One of the core pieces of the bid was the inclusion and ownership of the bid by those who live and work in the city. That means in particular involving all those who would normally not feel involved in the mainstream of rebuilding infrastructures, in the big schemes, and in all of what appears often in the brochures that sell the city.

Creative Communities programme
This is the largest programme of public and community art in the UK and is being held up by the UK Government as an example of how other cities should use culture and creativity for regenerating a city. It started in 2004 and its target for 2008 is to have actively engaged 400,000 participants in high quality community-based cultural activities.

C. The creative industries an instrument of urban regeneration

4.9 The creative sector has an important urban regeneration function because it reuses abandoned spaces, which in turn animates cultural life and reactivates economic activity. Many urban redevelopment projects in deprived areas and old urban centres start with a major investment in either a museum or another big cultural facility. This encourages the emergence of other creative initiatives and changes perceptions of an area. However, urban redevelopment may lead to gentrification if the physical renovation programmes are not part of broader socially inclusive strategies.
D. Creative industries, place quality and city attractiveness

4.10 In dynamic cities the diversity of social and cultural amenities affects the quality of the urban environment and it is a factor in attracting tourists and high-skilled workers. This is clearly the case in London, Amsterdam or Vienna. Creative sectors help to shape a city’s image. Many local governments use the creative sectors in their city branding strategies in an attempt to differentiate themselves in the international landscape. Opera circuits across Europe, live music festivals, singular buildings by renowned architects, or fashion shopping, amongst others, have all become part of approaches to promote one’s city. However, the over-use of these strategies can also lead to the standardisation of cultural strategies and the instrumentalisation of culture. “Every city wants a modern art museum”.

Case 7. Barcelona: creativity and the city renaissance

The renaissance of Barcelona after the 1992 Olympics has much to do with the physical transformation that occurred in earlier years, and also the clear international strategy that was pursued that emphasized culture and creativity as one of the distinctive features of the city.

Architecture, design, music, and fashion are four fields of excellence in the city's creativity. Every year highly-qualified professionals, artists, creators and tourists come to the city attracted by a rich cultural heritage (medieval art, Modernism, vanguards of the 20th century, contemporary art) and the vibrant cultural offer.

- In 2006 Barcelona received more than 6 million tourists, many of which visited the city to attend international fairs and conferences.

- Additionally, even though Barcelona has still not consolidated an innovation economy capable of competing in jobs and salaries with cities like London or Paris, for nine consecutive years senior executives of big European companies have placed Barcelona at the top position in terms of quality of life for employees (European Cities Monitor, Cushman & Wakefield – Healy & Baker).

- Finally, Barcelona is also seen as a destination centre for creative professionals - architects, designers, stylists, photographers, publicists, etc. (one illustrative example is that at present there are 5,000 architects living in the city).

**Barcelona Creative Tourism** is a new initiative launched in 2006 by Turisme de Barcelona and Barcelona City Council that welcomes: artistic and cultural initiatives orientated around visitors’ creative activities; activities related to an artistic learning; and individual or collective projects carried out in Barcelona in collaboration with local artists. Barcelona Creativa offers support for projects related to creative tourism and facilitates meetings between the city cultural resources and the “creative tourists”.

[www.barcelonacreativa.info](http://www.barcelonacreativa.info)
What are the conditions for creativity?

Core idea: Creative cities are not only those with a strong presence of the creative arts, but cities with respect for social diversity, a positive attitude towards risk, high-qualified human capital, socially inclusive policies, adequate spaces, and availability of financing for creative activities.

<table>
<thead>
<tr>
<th>3 Ts: talent, technology and tolerance</th>
<th>Talent and technology facilitate the development of human creativity. Tolerance (respect for social diversity) enables places to attract both talent and technology.</th>
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</thead>
<tbody>
<tr>
<td>A positive attitude towards risk and entrepreneurship</td>
<td>Creativity is about values of work: no fear of change or failure. Also creativity runs across different types of jobs, from the inventor to the person who, in his/her daily work, is creative in finding a solution.</td>
</tr>
<tr>
<td>Social inclusion policies</td>
<td>For creativity to flourish in our communities, it is important to highlight the relationship between cultural output and social cohesion.</td>
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<tr>
<td>Values at school</td>
<td>Skills to foster creativity must be developed at school. Current educational systems do not seem to offer children the adequate atmosphere to develop these skills.</td>
</tr>
<tr>
<td>Business skills</td>
<td>Entrepreneurs must be able to understand that ideas can be good business. It is important to develop the management capabilities of the creators, although it is also important as well not to mix the role of the creator with that of the manager.</td>
</tr>
<tr>
<td>A high-quality environment</td>
<td>Good connectivity, availability of social and cultural amenities, green spaces, and good weather, all attract talent and inspire artists and creators.</td>
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<tr>
<td>Adequate spaces</td>
<td>Space is expensive in successful cities. A key challenge is reconciling economic success with the availability of affordable spaces for creators. A second related matter is that of the types of spaces required: creative people do not need normal offices.</td>
</tr>
<tr>
<td>Financing</td>
<td>There is a lack of adequate financing for projects in the creative industries. At present cultural and creative sectors are confronted with a model of financing based on fragmented public subsidies. New financial instruments are required that invest in excellence and/or innovativeness (e.g. specific risk capital funds).</td>
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</table>
5. Conclusion

Creativity, innovation and entrepreneurship

5.1 Creativity is an attitude, it is not a sector. Policies fostering creativity should diverge from policies fostering sectors. It is important to break down the conceptual frameworks that associate creativity with the cultural world and innovation with the economic world. In reality they are both the same things, i.e. a positive attitude towards change, entrepreneurship and knowledge. Roots are also important however. Creativity feeds from its roots and identity.

Culture as a bridge between competitiveness and cohesion

5.2 Traditional manufacturing cities wrestle with the question of how they will replace the number of industrial jobs lost by the delocalisation of manufacturing activities. Some of these cities are indeed sceptical of the role that creative industries can play in the transformation of their economic bases. Yet they must go beyond scepticism and go for creativity. Low-salary approaches are neither possible nor desirable any more. There has been a shift from a situation in which companies would choose a location because of its natural resources or good infrastructure, to a situation where companies are interested in attracting talent, which result in them locating in the cities that attract such people. The only chance for European cities is to create competitive advantages based on knowledge and creativity. There is no other alternative. Half of today’s jobs didn’t exist ten years ago and half of today’s present jobs will not exist in ten years. And it is the case that we all can go for creativity. The question “how many creative cities can we have in Europe or anywhere” is a wrong one. If creativity is what we say it is, a process, and an attitude, then we can all become more creative, and it is something that we should all be doing. In this process of economic restructuring of our cities, culture can help by acting as the bridge between economic competitiveness and social cohesion.

Policy lessons for a creative city

5.3 Bigger cities are not necessarily more creative. Other factors matter as well, when it comes to innovation and creativity. These factors include:

Case 8. Vienna: Financing excellence

Departure is an initiative of the City of Vienna. It is an affiliated company of the Vienna Business Agency. It was founded in 2003 and it started operating in May 2004 as Austria’s first support programme for the creative industries with an annual funding budget of 2.5-3 million euros.

Departure offers competitive grant money for creative projects under very clear criteria. The selection of projects is made by juries. Its aim is neither substituting the city’s cultural budget, nor being a pretext for cutting support to critical and young modern art. Departure aims at high professional entrepreneurs with business projects in the belief that high quality projects act as catalysts within the creative scene and generate material and non-material benefits within the community.

- Focus: development and marketing of creative products on fashion, design, multimedia, and music. Since July 2006 Departure’s financing has been opened to all creative businesses.
- Target: established entrepreneurs or founders of enterprises, existing companies requiring expert know-how for the implementation of a specific project; and young entrepreneurs and all those who have established a company for not longer than six months prior to the date of submission.
- Criteria for the selection of projects: innovation and creativity, economic sustainability, synergetic effects
- Conditions: maximum funding per company is 200,000 Euro over 3 years
• Having an explicit strategy that links culture to economy and social cohesion

• Investing in education, respect for diversity, socially inclusive policies, the availability of spaces to develop creative activities, and a high-quality environment

• Being capable of managing conflict. Creativity has to do with diversity and managing diversity requires policies that are able to manage conflict, for example between different patterns of leisure

• Having a number of big players, either strong companies or important personalities who care about the city

• Enabling arenas for dialogue – governance. This involves creating formal or informal networks which bring all the players together regularly in order to overcome difficulties of understanding between the cultural sector and the economic sector, and between the cultural sector and the public sector

• Investing in excellence or in innovativeness, while also developing new financial instruments that improve the quality of access to finance and overcome the fragmentation of public subsidies

• Enabling bottom-up creative processes. These processes are in constant reinvention and can be easily destroyed by public intervention (e.g. redevelopment of a site). Although it is important to ensure availability of affordable spaces for creative people, it is also important to acknowledge the fragility of bottom-up creative processes

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Terminalb www.terminalb.org


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i The 2nd Strategic Plan of Culture was approved in November 2006 and replaces the previous one from 1999.

ii “At stake here is a new relationship between culture and economy. This is not a purely celebratory thing, that finally economics is valuing human creativity and realising individual potential, nor is it the final subsumption of culture within the productive base of capitalism; it is partially both but it is also a different dynamic which needs to be faced. In policy terms the problem has been the language difficulties between economics and culture” O’Connor (1999:5)

iii Classification from the Creative Industries Mapping Document 2001 of the British government’s Department for Culture, Media and Sport

iv Ajuntament de Barcelona (2002)

v According to a study undertaken by the Design Council (2006) in England, for every £100 a design alert business spends on design, turnover increases by £225. In another study by Departure (2006) referred to the Austrian case, 72% of the surveyed companies agreed that design increases profitability

vi Van Borg and Russo (2005)

vii An acknowledgement of the social role creative industries can play in cities was made at the Agenda 21 for Culture, approved in Barcelona in May 2004 by cities and local governments during the assembly of the IV Porto Alegre Forum of Local Authorities for Inclusion. The undertaking n.30 of the Agenda is “to boost the strategic role of the cultural industries and the local media for their contribution to local identity, creative continuity and job creation”

viii See the study “The shadow city” by Urban Limited et al. (2004)
Innovation and Urban Competitiveness:

HELSINKI

Magnus Gräsbeck, Urban Facts, City of Helsinki
1. Introduction

1.1 The choice of this theme for Helsinki was an obvious one. For a number of years, policy makers in Finland have generally acknowledged that the best way for Finland to stay competitive globally is to invest in creativity and a knowledge-based economy, where education, R&D, and a readiness for innovation are key factors. As Eero Holstila, Helsinki City’s Director of Economic Development, has noted “During the deep economic recession in 1991-94, the National Government had to make many cuts, but it never made cuts in research and education”.

1.2 While the decline of conventional manufacturing had taken place over decades in many countries in Europe causing extensive unemployment and deep economic recessions, in Finland this took place over just a few years. From a situation of full employment in 1991, Finland and Helsinki found themselves in a position of mass unemployment with one-fifth of the labour force unemployed within two years. Whereas cities in the rest of Western Europe had gradually grown accustomed to rising unemployment due to structural changes, for Helsinki the experience was a shock when all of a sudden unemployment soared.

1.3 There were several key reasons for this situation. Partly it was caused by the slight economic recession in Europe, but above all, it was caused by the collapse of Finnish bilateral trade with the Soviet Union. A considerable part of Finnish exports suddenly had to find new markets.

1.4 Public authorities had to respond to the acute crisis. The social welfare authorities gave the first response. But more than that was needed. Policy-makers drew up plans for new measures that were rapidly implemented. The Helsinki Region, with over 20% of Finland’s population and over 30% of national GVA, led this process. The economy started picking up again in 1994, and now, after thirteen years of mostly successful economic recovery, it seems a good idea to try to chart what happened in Helsinki and Finland during this period.

1.5 This chapter presents some of the key projects and measures that have been launched and identifies the key factors that were significant, relating them to the theme of “the knowledge economy and urban innovation”. We know that many other cities in Europe have many of the business-stimulating assets that Helsinki has in terms of education, research and development, business incubators, etc., so what is different in Helsinki?

1.6 A number of factors explain the differences. Firstly there are historical and cultural reasons. And secondly there are the deliberate policies to join forces in the region, some of which have received support from the European Union. The national government has also encouraged this process. But also there is something about the spirit of doing things in Finland and Helsinki. As Eero Holstila, Helsinki City’s Director of Economic Development put it in his speech in June 2006: “there is something in our society which is hard to define, but it is there”.

1.7 It is also obvious that there are dynamics in the business sector that have stimulated economic and social development. In the case of Helsinki, such dynamics include:

- Helsinki’s position next door to the huge Russian market.
- Helsinki’s position as a major logistic hub on the Baltic Rim, and a hub for sea-borne tourism and transport.
- Economic fluctuations favouring strong Finnish industries such as ICT, paper and pulp, and metal industries.
- Helsinki being an important location for company headquarters and an important port for exports.
- Companies and customers in Finland are innovation-friendly.
2. Historical and cultural factors

2.1 There are a number of historical and cultural reasons behind Helsinki's economic recovery.

2.2 Only half a century ago, one-tenth of Finland’s entire population had to be re-housed, and very heavy war indemnities paid. This created what was called the brothers-in-arms spirit, a concept which is still referred to: “Could you do this on brothers-in-arms conditions?” It is still a common expression.

2.3 A small nation squeezed between large political blocks – in a cold climate – is used to hardships and to common efforts. The Finnish word talkoot, meaning unpaid voluntary work done by friends and neighbours together, to our knowledge has no direct translation in any of the bigger European languages.

2.4 Quick decision-making. In Scandinavia, Finns are known to make decisions fast and to trust those in charge to make the right decision. In addition the Finns enjoy work. A common greeting is Työn iloa!, i.e. literally Joy of Work! or Have a nice time working!

2.5 There are equal opportunities for learning, including free compulsory education up until the age of 16, free secondary education, and almost free tertiary education. As Ikka-Christian Bjorklund, the Deputy Mayor of Helsinki underlined in his contribution to our workshop, “the strong foundation of Helsinki’s competitiveness is our Nordic welfare model of comprehensive welfare services including comprehensive schools, secondary education and university-level education.”

2.6 As Manuel Castells and Pekka Himanen show in their book 'The Information Society and the Welfare State: the Finnish Model' (2002), technological and economic success in Finland has been combined with social justice and equality. The result is a virtuous cycle where the welfare state generates well-educated people to generate wealth to generate welfare to generate well-educated people.

2.7 Finns are known in Scandinavia, sometimes even mockingly, for their honesty and reliability. The World/Global Corruption Report 2006 rank Finland, Iceland and New Zealand as the least corrupt countries in the world.
2.8 As Marjatta Bell & Marjatta Hietala (2002) have shown, policy-makers and officials in Helsinki have long traditions of studying best practices in other cities. Also, being the only major city in a small and relatively remote country, Helsinki is very aware that it has to strive to compare with well-known, famous cities to be successful. This view underpins the joint vision shared by the municipalities of the Helsinki Metropolitan Area to be “a dynamic world-class centre for business and innovation. Its high-quality services, arts and science, creativity and adaptability promote the prosperity of its citizens and bring benefits to all of Finland”.

2.9 During the global economic recession in the early 1990s, the telecom sector including mobile phones and the Internet expanded very rapidly. Finland was well prepared to respond to this development thanks to earlier long term investment in knowledge and education. Also, in the 1980s, Finnish company Mobira, later purchased by Nokia, was one of the pioneers of mobile telephone technology, and the industrial group Nokia had engaged in the computer business. When the economic depression came in the early 1990s, Finnish engineers many of whom were from the Helsinki University of Technology had already been engaged for many years in basic and applied research on computer and telecom technology.

2.10 The ICT sector, headed by Nokia, then became a motor of economic growth in the Helsinki Region and some other Finnish urban regions. (The Nokia headquarters and much of the company’s research and development capacity are still located in the Helsinki Region, near the Helsinki University of Technology, and other Finnish city regions, although production has spread worldwide.) On 1 January 1994, the telecom sector was deregulated in Finland, which created an ideal home market for Finnish ICT manufacturing.

3. Regional Collaboration

3.1 It is difficult to give a full account of what has been done in the Helsinki Region to help recover from the economic depression and to claim a position as a leading competitive urban region. However, an overarching principle of the authorities has been to apply the Triple Helix model, or in other words to mobilise and join the resources of the business community, the academic community and the administrative sector. Education, research and knowledge have been very much at the fore. Another cornerstone has been the belief in social equity and social balance as a basis for competitiveness. As Professor Michael Parkinson noted at our workshop the “spectacular recovery of the Finnish economy in the late 1990s must be a combination of many factors … There’s the social welfare system with extensive taxation, social intervention … Welfare services are a crucial part of the knowledge infrastructure … Never rest on your laurels”.

Government policy

3.2 “Earlier, the target of regional policy in Finland were the weak regions,” said Veijo Kavonius, Deputy Director-General of the Ministry of the Interior in his address at the COMPETE Seminar in Helsinki in June 2006. “Now, we’ve turned it upside down: we focus on the strong regions, too … In the 80s, we realised knowledge and competitiveness were crucial for regional development … Urban regions are key actors in implementing the Lisbon strategy, and the Government has to have a clearly defined policy for urban regions.” In 1994, the National Government launched the Finnish Centre of Expertise (CoE) Programme. Its main idea is to encourage local processes to create research-based companies and to help them grow. For the last few years the focus has been on the development of knowledge-based clusters of the local economy.
Regional and municipal collaboration

3.3 Ministries other than the Ministry of the Interior have been active too. The Employment and Economic Development Centres (T&E Centres), started their operations in autumn 1997. The previous regional units of the Ministry of Trade and Industry, Ministry of Labour, and the Ministry of Agriculture and Forestry were then united into 15 regional T&E Centres, each offering advisory and development services for employment and business issues. The tasks of the T&E Centres include supporting and advising SMEs at the various stages of their life cycle, promoting technological development of enterprises and helping firms in issues related to exports and internationalisation, implementing regional labour policy, and planning and organising adult education in compliance with labour policy. The T&E Centres are involved in business incubators and start-ups in a very concrete and practical manner.

Centres of expertise

3.4 In the Helsinki Region, the Centre of Expertise Programme (co-ordinated by a multi-disciplinary state-level committee with representatives from several ministries, and run by Culminatum Oy Ltd.) focuses on six knowledge-intensive clusters. Every project has a project management team and an advisory committee consisting of prominent representatives of business life, universities and cities.

3.5 The development measures of the CoE programme involve implementing enterprise-specific R&D projects and programmes to enhance business operations and to improve the skills of staff. Activities also include networking operations, the development of specific services (e.g. testing laboratories for software companies), and establishing professorships and training programmes in universities. Information services of CoEs cover research and reporting work on cluster development and business models.

Table 2: Centres of Expertise in the Helsinki Region in 2003-2006

<table>
<thead>
<tr>
<th>Field of expertise</th>
<th>Implementing organisation</th>
</tr>
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<tbody>
<tr>
<td>Adaptive Materials and Microsystems</td>
<td>Technopolis Ventures Ltd</td>
</tr>
<tr>
<td>Digital Media, Content Production and Learning Services</td>
<td>Culminatum Ltd</td>
</tr>
<tr>
<td>Gene Technology and Molecular Biology</td>
<td>Helsinki Business and Science Park Ltd</td>
</tr>
<tr>
<td>Logistics</td>
<td>Technopolis Plc</td>
</tr>
<tr>
<td>Medical and Welfare Technologies</td>
<td>Culminatum Ltd</td>
</tr>
<tr>
<td>Software Product Business</td>
<td>Technopolis Ventures Ltd</td>
</tr>
</tbody>
</table>

(Source: Culminatum Oy Ltd. Cf)

Municipal cooperation with regional and private sectors

3.6 “Finland has a system of very strong municipal government with the right to levy tax, and the city is responsible for a large array of public services … … It should be self-evident to join forces between municipalities, universities and the business community”, said Ilkka-Christian Bjorklund, the Deputy Mayor of Helsinki, in his welcoming speech to the delegates of the June 2006 COMPETE Seminar in Helsinki, and added, “We hope to improve our work on this model”. Measures and programmes in the Helsinki Region automatically include Helsinki, and are often initiated by Helsinki. Among these, we shall limit our overview to those most closely related to our theme of knowledge, education and innovation. Here, too – or here in particular, the Triple Helix principle has been applied. The degree of cooperation and the number of stakeholders vary, but there is a common awareness of the importance of cooperation for competitiveness.
Business incubators, start-ups

3.7 At present, there are thirteen business incubators in the Helsinki Region. They operate as a network coordinated and financed by the T&E Centre of Uusimaa (Greater Helsinki), and they are to some extent developed jointly. They all strive to have different profiles, specialising in different fields of business, and collaborate closely with academic or polytechnic units.

3.8 According to the Uusimaa T&E Centre, the survival rate of start-ups has been slightly over 80 per cent. Factors that have been decisive for survival are flexibility, adaptability and hard commitment. Technopolis Ventures has argued that the Information and Communication Technology (ICT) sector of the Helsinki Region “is unique even by European standards. It brings together the infrastructure, scientific institutions, education, research, R&D institutions, laboratories, and development programmes, as well as start-ups and world class companies within a single, compact community”.

Table 3: Start-up statistics of Greater Helsinki Region business incubators in 2005-2006

<table>
<thead>
<tr>
<th>Incubator</th>
<th>2005</th>
<th>2006</th>
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<tbody>
<tr>
<td></td>
<td>Start-ups</td>
<td>Jobs in Start-ups</td>
</tr>
<tr>
<td>Amiedu</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Arabus</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>HBSP</td>
<td>15</td>
<td>37</td>
</tr>
<tr>
<td>Innosampo</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Itä-Uusimaa</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Keski-Uusimaa/Forum</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Länsi-Uusimaa</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td>Maaseutu</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>NBC</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>NYP*</td>
<td>357</td>
<td>534</td>
</tr>
<tr>
<td>Raasepori</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Sosterv</td>
<td>16</td>
<td>57</td>
</tr>
<tr>
<td>Technopolis</td>
<td>36</td>
<td>128</td>
</tr>
<tr>
<td>TechVilla</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Travel Park</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Twinbic</td>
<td>16</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>537</td>
<td>941</td>
</tr>
</tbody>
</table>

* all firms established by NYP customers, estimated total number of jobs
Source: Uusimaa T&E Centre

City-university cooperation in research

3.9 In 1995, the City of Helsinki took up agreement-based research collaboration with the Helsinki University of Technology. This university has long traditions of cooperation with the business community, which were deepened further by the Triple Helix approach. The idea has been to mobilise basic research for the benefit of urban research and planning, and to bring feedback from these fields back into basic research.
3.10 An important example of knowledge-and-skills oriented cooperation between the University of Helsinki and the city was the establishment in 1998 of nine professorships in urban studies, for a five-year term of office. A new sponsoring period began in 2003 with the signing of a pluriannual agreement between the University of Helsinki, the Helsinki University of Technology, the cities of Espoo, Helsinki, Lahti and Vantaa, and the Ministry of Education. The project will continue up until 2010. Some of the professorships have been made permanent. This network for urban studies in the Helsinki Metropolitan Area has been a unique form of cooperation both in Finnish and international terms. The core of the network are the nine professorships in urban studies, namely those of European metropolitan planning, urban history, social policy, urban sociology, urban economics, urban ecology, urban ecosystem studies, urban technological systems and urban geography. The professors are assisted by a research manager for the urban research network and by Helsinki City Urban Facts. Also, in 1998, Helsinki City Urban Facts established a flexible number of fixed-term posts for young researchers.

3.11 Since 1996, a Helsinki City Scientific Award has been granted annually by the city to a researcher having done significant scientific work on or for Helsinki. An even older form of cooperation with local universities are the Awards for Meritorious Master’s Theses, granted since 1992. A very concrete form of support to researchers are the Helsinki Research Scholarships for studies on a Helsinki topic. The city of Helsinki does research cooperation with other Finnish universities as well, in Helsinki and elsewhere. Yet another form of cooperation has been to involve expertise from Helsinki City Urban Facts Office into the creating, together with the Ministry of Education, of a model for foreseeing the need for secondary education capacity. Such foresight activities are considered crucial in Helsinki and Finland.

Culminatum Ltd.

3.12 Culminatum Ltd is a development company owned by the Uusimaa Regional Council, the cities of Helsinki, Espoo, Vantaa and Kauniainen, and the universities, polytechnics, research institutes and business community of the Helsinki Region. The main function of Culminatum Ltd is to manage the Centre of Expertise Programme within the Helsinki Region. Culminatum’s ownership base provides a strong background. The resource base is formed by the municipalities and their joint area council, the knowledge base by the universities, research institutions and polytechnics, and the business base by the companies, science parks, chambers of commerce, foundations and financiers. This “Triple Helix”-based ownership model implies that the company has the potential to become a powerful tool for regional cooperation in the Helsinki Region.

3.13 Culminatum’s strategy is built on two main platforms:

• Developing the regionally important knowledge-based growth clusters (Centre of Expertise Programme).

• Strengthening the regional knowledge base and developing the regional innovation environment (Urban innovation policy).

3.14 In 2003, the Helsinki Club, a high-level think tank representing universities and global companies, and led by the Mayor of Helsinki, formulated a vision for the Helsinki Region: “Helsinki is a constantly developing world-class innovation centre based on science, art and creativity. The success of Helsinki benefits the region’s inhabitants and all of Finland.” The Helsinki Club also launched 14 key project initiatives to achieve the vision. It was suggested that Culminatum should assume responsibility for implementing some of these key projects, the most topical of them being the Innovation Strategy for the Helsinki Region.
3.15 Early 2005 saw the birth of Yhdessä Huipulle, a common innovation strategy for Culminatum’s owners presenting 26 common development projects from the universities, cities and business community. They focus on four key issues: (1) increasing the international appeal of local research and education, (2) developing strong clusters and creating test beds and living labs for product service development, (3) applying innovations to renew the welfare services provided by the cities and to consolidate the role of the cities in R&D, and (4) supporting university-driven business growth by, for example, developing a second generation science park concept. Culminatum was mandated to coordinate the process of putting the action plan into practice.

Forum Virium (Living Lab for innovation)

3.16 Forum Virium Helsinki is a cooperation cluster focusing on the development of new customer-driven digital services and contents. Forum Virium Helsinki was founded on the initiative of many significant players in the sector of digital services: the anchor companies of the cluster are Digita, Elisa, Nokia, TeliaSonera, Finnish Road Enterprise, TietoEnator, Veikkaus, WM-data, YIT-Group and Finnish Broadcasting Company YLE. Partner companies are Digi TV Plus, IBM, SOK, MTV3, Swelcom and Vaisala.

3.17 The public sector is represented by the City of Helsinki, SITRA (The Finnish National Fund for Research and Development), TEKES (National Technology Agency of Finland) and VTT (Technical Research Centre of Finland). The local universities are also involved. The role of Forum Virium Helsinki, a non-profit organisation, is to act as the neutral matchmaker between the partners.

3.18 The objective of the FVH project is to make companies and organisations cooperate to create internationally competitive digital services responding to the needs of consumers and customers. The idea is also to integrate consumers actively into the development of digital services. FVH and the living lab communities in Arabianranta are part of a European development pool with 15 members. Helsinki hopes to raise its profile as a pioneer in digital services and to see the birth of new business enterprise in this field. The new services and action models will also benefit the city’s own production of public services such as health services.

Baltic Rim cooperation

3.19 Helsinki is aware of the importance of cooperation around the Baltic. This cooperation covers many fields of business – as in the olden days of the Hanseatic League. The City of Helsinki participates actively in the BaltMet network, a forum for capitals and large metropolitan cities around the Baltic Sea.

4. Conclusion

4.1 Many of the deliberate measures taken in the last 15-20 years in the Helsinki Region have been taken in some way or other in many other European metropolises too, during the same period. After the decline of traditional manufacturing in Europe, the service sector has become dominant in all cities and the ICT sector has become strong in many cities.

4.2 In Helsinki, a general awareness of the importance of knowledge, education and R&D for the economy has led to a relatively strong concentration of knowledge- and skill-producing establishments, i.e. schools, polytechnics, universities, research institutes, science parks, centres of expertise, and consequently to strong corporate clusters in these fields. This is a crucial explanation for Helsinki’s high ranking in international comparisons of competitiveness.

4.3 Hardly any of the ingredients found in the Helsinki Region are unique in themselves. But we have tried to show how they have been accelerated and combined to catalyse the growth of Helsinki. What we found we might have just called Finnish, but we tried to distinguish a number of elements. These include a tradition of hard work, consensus, low hierarchies and a low level of formality, absence of corruption, reliability, trust, and a tradition of overcoming hardships.
4.4 The synopsis of the European Competitiveness Index 2006-07 puts it this way: “Helsinki has developed an extremely technology friendly culture, with the young and educated population open to change and willing to embrace new technological advances, with businesses, research institutions and higher education establishments all working together.” The Greater Helsinki Region, ranked 1st in 2006 and 2nd in 2007 on the ECI.

4.5 The importance of social equity is crucial. Helsinki and Finland have a policy of “countering trends for greater social differentiation within the region” (OECD, 2002). As Manuel Castells and Pekka Himanen show, Helsinki and Finland have managed to create a virtuous circle, where the welfare state has generated well-educated people to generate wealth to generate welfare to generate well-educated people. This is encouraging for the policy of the Finnish authorities, which have been determined not to make cuts in education, not even during the deepest economic recession. It is a crucial message for other cities and countries.
Knowledge Networks and Urban Competitiveness:

MUNICH

Dr. Raymond Saller, Department of Labor and Economic Development, City of Munich
1. Introduction

1.1 Munich chose the theme of networks in a knowledge based economy. Networks are vital for sharing knowledge and for creating synergies, while knowledge is of critical importance in terms of creating and sustaining innovation. Innovation in turn is key to improving competitiveness.

1.2 Technological progress generates and disseminates extremely rapidly in regions and economies that have powerful knowledge based sectors and business related services. The knowledge based innovation process can be subdivided into the following three steps: The generation of knowledge; the sharing and distribution of that knowledge among potential users; and application of the new knowledge to product development, whereby it translates into new business activity and economic development. All three are important for achieving and maintaining the competitiveness of a business location. In order to design innovative products out of knowledge, regional networks are essential.

1.3 Knowledge is available all over the world, yet nevertheless spatial economic disparities are growing. There are city-regions that are performing exceptionally well, while there are others that are lagging behind. In fact economic prosperity is concentrated in a few European city-regions that have developed clusters of outstanding importance. Cluster performance is often explained by the resources, including knowledge and technological competence, that are at a cluster’s disposal, and which are to a large extent determined by the cluster’s membership composition. However considerable performance differences remain between clusters with a similar membership composition (Michael Porter et al 2001), therefore to explain these differences it is crucial to analyse the networks that form the backbones of these clusters.

1.4 Networks have increased in importance for regional economic development because in a globally competitive world, co-operation, and regional strategies for co-operation, can generate creativity and innovation better than single firm or single issue solutions. Additionally, public authorities have lost much of their regulatory power and are much more dependent upon private partners. Their role has changed from a hierarchical public intervention role towards an “enabling state”. In Munich the inclusion of regional actors in networks of public and private partners, and the concerted co-operation of public actors like the City of Munich, the Free State of Bavaria, the Federal Government, the Munich Chamber of Industry and Commerce, universities and basic research institutes, have all been crucial for the successful implementation of individual initiatives. This will be demonstrated later by the Munich cluster of biotechnology.

1.5 The Munich experience underlined that competitive clusters have the following characteristics:

- Accumulation of companies, university departments, research institutions and service providers in a defined area of competence;
- highly qualified staff;
- developed start up dynamics;
- availability of risk capital; and
- a science and technology friendly environment.

These five elements are shaped by networks.

2. What advantages do networks offer?

2.1. Networks are locations where social relations, trust, and the sharing of common assets for governance exist. These networks can develop well in regional clusters (Stuart Rosenfeld 1997). Face-to-face contact is a requirement for the development of these networks. Geographic proximity facilitates this. It is a prerequisite for having the common cultural and social basis necessary to build up trust between regional stakeholders. Proximity also helps to keep the cost of transactions low and to reduce insecurities. It facilitates the exchange of knowledge, especially tacit knowledge.
Empirical studies have shown that the clustering of economic activities increases the innovative capacities of the small and medium sized enterprises (SMEs). Co-operation within networks brings together different capacities and strengths. It facilitates the ties between the companies and institutions and offers them the use of additional complementary resources. Also networks enable companies to exchange knowledge to improve the production processes, to cooperate within joint projects and to generate new knowledge. This is critical to maximise comparative advantages.

2.2 For the promotion of start-ups, infrastructure like incubators or regional financial institutes are important. But processes also matter. In the early stage of start-ups trust-based informal co-operation links and the use of knowledge, infrastructures and experiences of regional partners are of great importance for the establishment of companies in the market. The empirical evidence shows that location and proximity clearly matter in exploiting knowledge “spillovers” (David Audretsch 2003). Networks facilitate these processes and promote successful start-ups.

2.3 As Bernhard Katzy pointed out during the Munich COMPETE meeting, networks support the generation of relationships and routines among the partners which stimulate adaptation processes. The capabilities of clusters are found in these relationships and routines, which are learned, regular and collective patterns of interacting. Whereas the matter of operational capabilities focuses on the production of good and marketable services, the area of dynamic capabilities looks at how to build, integrate or reconfigure operational routines and assets to align the cluster with new strategic objectives.

2.4 The Munich work underlined that networks add value in the following ways, when compared with more traditional patterns of regional economic activities. They make a region’s innovative capacities more visible and they shape the region’s image. They stimulate the skill base of the workforce by attracting in talent from abroad, integrating skilled people into the local labour market, and by creating a labour force specialised in the activities of the cluster. They facilitate exchanges between companies and employees and encourage start-ups and spin-offs. Networks facilitate informal and formal intra-firm co-operation and partnerships of local universities, R&D centres and the business sector, which have positive spillover effects. They stimulate learning processes which allow clusters to build and acquire new knowledge. They offer business related services which are crucial for the development potential of clusters. Networks support the strategic decision making processes which are concerned with the direction of the cluster and the cluster’s flexibility in adopting to change. They allow the cluster not only to change the use of its assets, but also to recombine them and to integrate new assets and exploit new opportunities. Networks are essential for developing a global orientation of the cluster and help SMEs to build up global business linkages which improve their innovative capacities. Finally, working together in a network facilitates improved access to financial support programmes from the EU, the federal government or the state government.

3. Regional stakeholders as network partners

3.1 For networks to perform well they have to involve all of the key stakeholders. Hence in the case of the Munich Biotechnology Cluster, the cluster has had to develop strong linkages to:

- the local Universities and its hospitals;
- the Max Planck Society and its institutes of basic research on the field of bio-technology;
- the federal R&D Centre for Health and Environment (gsf);
- the Freestate of Bavaria;
- the Chamber of Commerce and Industry;
• leading companies of the biotechnology and pharmaceutical branch;
• specialised seed and venture capitalists;
• the Village of Planegg and the County of Munich;
• and of course the City of Munich.

3.2 The backbone of such networks are the SMEs and start ups. The increasing importance of networks in the field of knowledge generation and implementation has led to an upgrading of the regional level. “Regions are becoming local points for knowledge creation and learning in the new age of global knowledge-intensive capitalism, as they in effect become learning regions. The learning regions function as collectors and repositories of knowledge and ideas and provide the underlying environment for infrastructure which facilitates the flow of knowledge, ideas and learning” (Richard Florida 1995). Principally, clusters are business driven. There is no evidence that politics can create clusters from scratch. Networks are a self-organising system driven by the individual interests of regional stakeholders. What counts is market success. However, politics can be influential. As Guigere has noted “key growth drivers such as innovation, skills, entrepreneurship and social cohesion are very closely linked to governance. Government must recognise these linkages in formulating policy initiatives to promote competitiveness and prosperity” (Sylvain Giguere 2005).

3.3 Equally Michael Parkinson has underlined that infrastructure and institutions have great importance in the field of innovation generation. The development of such “hard” locational factors like airports, laboratories, and incubators, is a core task of public authorities. For example the City of Munich, Department of Labour and Economic Development, supports the further development of the Munich Airport, and the Munich Trade Fair and Congress Centre, and additionally jointly runs, (with the Munich Technology Centre), its own technology centre which includes a business incubator function. Often cities have limited powers and resources. To implement local policy effectively, cities have to build up partnerships for developing infrastructure and supporting innovation networks. Without regional networks the infrastructure buildings stand like “cathedrals in the desert” unable to generate knowledge and its implementation. Regional networks are involved therefore in the opening up of complementary knowledge (innovations, market data), better access to technology and markets, guaranteeing companies’ basic revenues by local sourcing, joint local pilot projects, reducing the costs of research and development infrastructure by common use (sunk costs), establishing strategic business alliances and sharing of overheads through administrative cooperation. Building up such vibrant networks is the key to increasing competitiveness in the knowledge economy.

3.4 In Munich the growth poles as in many other city regions are distributed all over the region. For effective public interventions it has to achieve ‘consensus and partnerships within a city region’ as Alain Thierstein pointed out at the Munich conference. It is hard to achieve territorial collaboration when it comes to hard political issues such as: where will the money and investments go, which places will win, which places will lose?. Hence there is a need for leadership and vision. We need to have the right incentives. Common projects and the right timing also help. Trust is important for networking around innovation systems at a particular spatial level. Such processes have to be encouraged and incentivised and cannot be imposed. Processes and networks are more important for innovation than institutions.
4. Munich and the Triple Helix Model

4.1 In Munich basic research institutes like the Max Planck Institutes and the Munich Universities are at the core of the network-building and knowledge creation processes. Together with the business sector and the public sector they have helped to create a typical Triple Helix Model, which was compared to similar models in other leading regions such as Barcelona, Helsinki and Manchester. Strengthening the linkages between regional actors, universities and companies in a functional Triple Helix Model is a key for stimulating innovation and economic prosperity and raising regional competitiveness. A model of such a cooperation was presented by Xavier Ricart during the Munich COMPETE meeting; see figure 1.

4.2 Often the co-operation between the three relevant groups of stakeholders is not sufficiently developed, and these gaps present a challenge for the public sector in creating innovative networks. In order to stimulate innovation dynamics they have to bridge the gap between the scientific and industrial communities. In this context there is often a particular focus on SMEs, which are often reluctant to collaborate with universities or research institutes. As they are the backbone of an innovation policy, there must be a systematic strategy of public support. At the same time the academic side can learn and gain from such collaborations by understanding more clearly, what the industry's needs are and how their scientific profile can be sharpened to meet those needs. In the following paragraphs some of the core tasks of the Munich Chamber of Industry and Commerce in developing such collaborations are presented.

4.3 The diverse and broad economy of Munich is an economic asset. As the Enquete-Commission of the German Bundestag (Enquete-Commission 2002) underlines, SMEs are the backbone of the German economy. They make an important contribution to economic and social stability and act as a strong counterbalance to multinational companies with their global economic integration and influence. A core characteristic of the knowledge based economy is the growing importance of small and medium sized enterprises and of innovative start-ups. Start-ups contribute a great deal to the generation, application and diffusion of new knowledge, the development of new technologies, penetration of innovative practices and the transfer of knowledge into innovative products and services. Therefore they stimulate the changes in market structure and in entrepreneurial co-operation agreements. The innovative products and services lead to higher...
productivity and comparative advantages and strengthen the competitiveness of the region. Often these advantages are realised in entrepreneurial co-operations and have a catalyst function for regional innovative processes.

4.4 The new economic growth theory recognises the outstanding role of start-ups in the economic development process and has identified start-ups as the real drivers to accelerate regional innovation processes (David Audretsch 1995). As a consequence, the endogenous stimulation and the support of start-up foundation processes has increased in importance for regional development compared with the attraction of companies from abroad. As the representatives from the Munich Chamber of Industry and Commerce and his counterpart from Barcelona have mentioned, the innovative capacity of SMEs is often limited by:

- lack of qualified manpower;
- lack of skills and resources in foreign trade and co-operation;
- insufficient participation in research and development and
- insufficient funding.

How to support SMEs?

4.5 In Germany the Chambers of Commerce are the organisations that represent the SME-sector. They bring the interests of their members into the political process and support the economic development of their members. In the following paragraphs some of their assistance policies are described.

4.6 Along with the City of Munich, the Chamber operates the “Munich Founders Center”, a one stop agency for start-ups. This agency provides advice and intelligence about how to start a company, it provides help on overcoming the barriers to being an entrepreneur, and it provides support on making a successful start for new SMEs.

4.7 The Chamber offers a coaching programme for entrepreneurs. In the first three years after company foundation, experienced coaches provide guidance to the entrepreneurs in all business matters. 60% of the costs are paid for by the Bavarian State. In 2005, nearly 400 companies were supported in this way. Most of them needed assistance in sales and marketing as well as management and organisation.

4.8 The Chamber provides financial assistance to various incubators and technology centres in the Greater Munich area for example the “Application Center for Satellite Navigation Oberpfaffenhofen” – an incubator which has created more than 40 innovative start-ups so far, with around 500 jobs in the field of satellite navigation.

4.9 The organisation offers background information to innovative start-ups and SMEs. In a monthly electronic newsletter the Chamber reports on studies, events, awards and subsidies in Bavaria, Germany and Europe. Bulletins concerning all relevant subjects: promotion and financing of innovations, high-tech start-ups, registration and utilisation of intellectual property rights, innovation awards, quality management and product safety are published and a website for technology co-operations has been designed. This online-platform assists the initiation of co-operations between start-ups, enterprises and science. Research projects, patents, licences and R&D co-operations are also offered and are in demand.

4.10 Together with the Chamber of Small Industries and Crafts, the Chamber of Industry and Trade operates the ‘Euro Info Centre Munich’. Here SMEs get information about trading in the EU, regulations and laws as well as support programmes. The foreign trade division provides information and services to SMEs, which are interested in exporting to Asia, North America, Africa or the eastern countries. In collaboration with “Bayern International”, joint stands for innovative start-ups and conventional SMEs at more than 50 leading fairs all over the world are organised.
4.11 The chamber assists companies in qualifying and training their staff. An ‘own business’ academy offers training courses for management and leadership, economics and marketing as well as technical knowledge. The participants can obtain a wide range of recognised degrees. Another important subject is vocational training. In 2005, the Chamber assisted in over 40,000 vocational training courses for commerce and industry.

4.12 However, the Munich experience underlines that we should not expect results from public interventions in the short run. As the model of Silicon Valley demonstrates, public interventions are only fruitful in the long run. “It took decades for a cluster [like Silicon Valley] to develop out of a small number of technological innovative start-ups” (Anne Saxanian 1995). Therefore politicians must be persuaded to think beyond political timetables and cycles.

5. Best practice in regional networks – The Munich Biotech Cluster

5.1 The following section identifies best practices in regional networks. Important pillars of a regional innovation process are knowledge creation and knowledge application by newly founded start-ups. As mentioned at the beginning of this chapter, institutionalized networks are important for the knowledge-based economy. The way in which such networks function can be illustrated by the Munich Biotech Cluster. In the case of BioM AG, a network had been established which combines the two pillars of knowledge creation and application.

5.2 In the Munich region a biotech cluster of global importance has been developed. The centre of the Munich Biotechnology Cluster is the incubator “Innovation and Start-up Center for Biotechnology” (IZB) which was established in Martinsried in 1995 and came from the request of scientists and students who wanted to start their own company next to the Max Planck Institutes for Biochemistry. The incubator was extended in stages from 800 sq.m up to 15,000 sq.m. More than 50 million Euro have been invested since its start ten years ago. The majority of the money has come from the State of Bavaria but one third is financed through global banks. Around the IZB the University of Munich has established its Gene Center and has relocated the Faculty of Pharmacy and Chemistry there. The gsf – National Research Center for Environment and Health has established a department there. The Munich Hospital Großhadern which is run by the University of Munich offers co-operation opportunities for scientists and start-ups in biotechnology. The management and the support of the cluster is done by the BioM AG which stimulates innovative inputs from the bottom up. The main tasks of the BioM AG is to get these ideas into industry and to bring research money to Bavaria. The BioM AG supports the activities of the State of Bavaria and the City of Munich to develop and to promote the Munich region as one of the leading life science clusters in Europe.

5.3 The BioM AG is the one-stop-shop for everything to do with commercial biotechnology. The vision is to support the dynamic development of the local biotech industry which did not exist at the beginning of the nineties. The BioM AG began in 1996 with the BioRegio competition, which was launched by the Federal Republic of Germany. Munich became one of the three winning regions. The companies taking part were awarded a prize of 25 million Euros which was used for cluster support activities in general. There was strong political will to support the organisational development process of biotechnology in the Munich area. That was the birth of the BioM AG as an organisation. In developing the cluster the BioM AG also took over the scientific management of the biotechnology incubator in Martinsried. In 2006 the BioM AG was chosen by the government of Bavaria to act as one of the 19 cluster institutions that implement professional cluster management structures in selected Bavarian growth poles. The following graph called the “wheel of success” (see next page) illustrates the fields in which the BioM AG tries to create an innovation culture.
5.4 Efficient network management is carried out by the BioM AG. It organises events such as open days and educational events, it publishes a regular newsletter, and it presents seminars on business topics such as financing, clinical development, and regulatory affairs. These bring together scientists from universities, medical doctors, and representatives from biotech companies, to facilitate business contacts. The BioM AG represents the Munich Biotechnology industry world-wide and organises PR work globally, often in co-operation with the City of Munich and the Freestate of Bavaria. Together the regional stakeholders promote Munich as a City of Science and Health. Interest in the success of the cluster is enormous. In the past two years many people have travelled to Munich, mainly from Asia, and especially from China. One of the most important but challenging tasks is that of financing newly founded start-ups. In order to make an entrepreneur out of a scientist, training in economic thinking and writing a business plan is essential. An innovative technological and science base is the starting point. But designing a promising business plan is the prerequisite for getting financial support for implementing the business idea. This requires business advice which is provided by the BioM AG. For example it can provide the support of experts for writing an investment report.

5.5 The company offers a set of support measures, illustrated in the figure below, the “Wheel of Success”. Together with a local community network it facilitates the use of the endogenous potential for stimulating economic and innovative activities.

5.6 The BioM AG is the contact point for founders of biotech companies, for politicians and for the industry – large and small. The company does a lot of networking which has evolved over the years due to the growth and success of the cluster. Networks have emerged which are specialised for CEOs, technicians, clinical developers, and so on. The BioM AG represents the network in many national and international biotech organisations. It founded the working group of the German Biotech Regions, which is now a very powerful network in Germany. Through this network there has been a slight change from the competition of German biotechnology regions towards co-operation. But there is still competition among the biotech regions, so the situation is best described as “co-opetition”.

Figure 2: “Wheel of Success”
5.7 To efficiently use infrastructure and strengthen the network requires a careful selection of companies for the incubator IZB, which is run by the company. The BioM AG does not support the companies directly but indirectly with the further development of the network of the cluster. This network offers free consultancy services and has members who are able to give legal advice. There is no subsidised price for renting office spaces at the IZB. Subsidised prices can support companies only in the short run and are not the right tool for stimulating businesses in the long run. What matters is that the IZB offers its companies membership of the Munich network – a biotechnology community.

5.8 In order to support the most promising companies, the BioM AG organises a business plan selection process. The second stage is helping to get the business started. Here the BioM AG can offer seed capital and can help to establish business and financial contacts. Seed funding is crucial, because starting biotechnology companies costs a great deal of money at the beginning, and the prospects of success only become clearer after a long period of research work. In the last decade the BioM AG has invested 7.5 million Euros in start-ups that have triggered 300 million Euros of additional private venture capital. Government should not be involved in judging which innovative products might have commercial potential. This advice is (and should be) given by private experts. One good example of a start-up is the so-called “High Tech Gründerfonds” which has been handled by experienced venture capitalists.

5.9 The Max Planck Institute of Biochemistry (MPIB) supports the cluster by giving initial funding and coordinating support for the establishment of the International Max Planck Research School “From Biology to Medicine”. Together with the University of Munich, the Technical University of Munich and the Max Planck Institutes of Neurobiology and Psychiatry, the MPIB offers an outstanding international PhD programme in life sciences covering areas of biochemistry, cell biology, molecular medicine, neurobiology and structural biology and a faculty of 33 leading scientists and their research institutes. Since only universities are permitted to confer a doctorate, each PhD thesis at the MPI has to be carried through in close collaboration with the local university, for example with one advisor from the MPIB and one advisor from the university. This in turn enhances scientific co-operation.

5.10 The strength of a regional network like the Munich Biotech network is that it has a lot of partners of excellence in specialised fields, which can provide their know-how and expertise to network members. One strong co-operation partner is Garching Innovation which offers support in the area of the commercialisation of new business ideas (knowledge). Often there are market failures with attempted commercialisations of ideas. The Garching Innovation company tries to provide a bridge between science and the marketplace to improve the chances of success. It evaluates the market value of the founding idea and advises on how to manage the founding process. It coaches company founders in their writing of a reliable business plan and development of a financial strategy. This can then be used when negotiating with venture capitalists or when seeking to raise suitable funding programmes for the company. GI consults on patent matters and negotiates licence agreements. All of these steps are illustrated in the following figure 3:

5.11 In the following section some best practices from Helsinki, Manchester and Barcelona are presented, which add further insights into aspects and examples of regional networks.
6. Good practice in regional networks - Helsinki, Manchester and Barcelona

6.1 Culminatum Ltd. is one example of good practice in terms of ‘networks in the knowledge based economy’ based in Helsinki. Culminatum Ltd.’s mission is ‘to combine the capacities of universities, the business sector and local government in order to catalyse the knowledge based industries’. It brings together all key stakeholders in the Helsinki region. Its members are drawn from across the county and the cities, although universities and governmental research institutes account for the largest share of its members (43%). Financial institutions, the science parks and private companies are also represented. This kind of ownership structure provides a sound base for many kinds of joint ventures. At the same time however it is also an obstacle in that owners feel that they have a much smaller amount of control, compared with owners of other companies, due to their having just small shares. As a result the owners of Culminatum Ltd. are largely interested in the position of the company. When the idea to establish the organisation of Culminatum was made, the aim was to launch initiatives with as many partners and stakeholders as possible. The innovation strategy co-ordinated in 2004/2005 is probably the best example of this joint approach, with all owners and partners being brought together, and with Culminatum acting with them and for them.

6.2 In designing the innovation strategy last year, regional stakeholders worked intensively to publish the January 2005 report based on four key proposals:

- Improving the international appeal of research and expertise
- Enforcing knowledge based clusters
- Creating common development platforms, and
- Supporting innovative actions

6.3 Forum Virium is one example of Culminatum’s work. Forum Virium is a platform that was created to facilitate the transfer of knowledge from science to products. It is an open style of innovation model, created in order to develop ‘customer need driven, internationally competitive digital services in the Helsinki metropolitan region, in collaboration with companies, public bodies, and citizens’.
6.4 The leading Finnish multinational company Nokia and some other important companies in the IT and telecommunications sector are stimulating an open innovation partnership. The goal is to combine the knowledge and the innovation capacity of SMEs and the experience and market power of a global player to create a lead market for innovative telecommunication applications based on the UMTS standard. For the development process, the Forum includes the membership of the public company Decest, which is the largest Finnish financier of R&D. Public entities like the City of Helsinki support the Forum by supporting pilot-projects.

7. The Manchester Knowledge Capital Initiative

7.1 The Manchester Knowledge Capital Initiative (MKCI) is a best practice example of how universities that have outstanding roles in the knowledge based economy can be integrated into regional development strategies. A key focus of MKCI is citizens’ participation, which adds a fourth pillar to the above mentioned Triple Helix Model. Increasing public awareness regarding the importance of knowledge for the future economic and social prosperity of city-regions plays an important role in encouraging young people to get basic qualifications and to acquire skills for the use of modern technologies. Manchester Knowledge Capital Initiative provides support for these aims by creating an iconic place to develop knowledge transfer from the universities, and additionally by convincing local people to get involved in science and by demonstrating to them the potential career prospects. To raise the visibility of Manchester’s knowledge assets the Arc of Opportunity which stretches along the Oxford road corridor was established. The Arc covers about a two mile stretch of Manchester’s centre and includes three universities campuses, part of the centre of the city, the Science Park, and the Oxford Road Corridor with the University of Manchester and Manchester Metropolitan University. It has a high concentration of knowledge workers and a huge turnover.
MKCI is not a formally constituted partnership, nor is it a registered company. The universities are important founders of the partnership. The vice-chancellors and the presidents of the Universities are part of the Board and act as equal partners to the Chief Executives and the Leaders of the metropolitan authorities. It is an inclusive partnership made up of Manchester City Council, Salford City Council and eight other local authorities, the airport, the four universities and a number of private partners. Each of the key stakeholders provides funding for this initiative, however half of the funding for the partnership is from the North West Regional Development Agency.

Manchester is concentrating upon specialist clusters of European importance such as: Life Science / Health Industries, Creative and Digital Industries, Finance and Professional Services, Advanced Materials and Manufacturing, Aerospace and Aviation Industries, and Environmental and Nuclear Technologies. Manchester also recognises that knowledge workers have an immense choice regarding where they want to live, and that it is therefore very important to create a place that is attractive for these types of people in order to drive the local economy and society forward.

8. **22@Barcelona**

8.1 The Barcelona Chamber of Commerce identified four barriers that have hampered the birth and consolidation of new, innovative companies in Catalonia:

- lack of an entrepreneurial culture favouring innovation;
- educational deficiencies;
- lack of interaction between universities and the private sector;
- bureaucratic procedures and the regulatory framework.

To overcome these barriers the regional stakeholders have initiated various strategic projects to stimulate co-operation at the regional level. Of the various projects, the 22@Barcelona project is the one that is the most strategic, and has the greatest potential to transform the city-region into a knowledge region.

8.2 22@ is an ambitious transformation of 200 hectares of former industrial land in the Poblenou district, popularly known as the “Catalan Manchester”. The project is run by municipal society 22@ BCN, SA, created in 2001. It includes the regeneration of more than 4 million square metres of new land, the re-urbanisation of 35 kilometres of streets, and approximately 220,000 m2 of land for new public facilities, green spaces, and new social housing homes.

8.3 The 22@strategy is based on three pillars: urban innovation, economic innovation, and social innovation. In terms of urban innovation, the area is being promoted on the basis of mixed uses of land – a general urban policy principle in Barcelona. The mixed uses include: research, economic activity, and housing. The land in the area, which has traditionally been given the industrial designation of ‘22a’, has been re-designated as ‘22@’ land, which assigns the land as areas for ‘the coexistence of all non-disturbing or non-polluting productive activities’. High-quality infrastructure and facilities are planned: telecommunications (fibre optics), “7@facilities” (universities, research centres, innovation centres), transportation (especially metro and tramways), green areas, a central climate system, and pneumatic refuse and waste collection infrastructures.

8.4 In terms of economic innovation the 22@ Barcelona district brings together the different actors and organisations that make up the system of innovation, i.e. cutting edge companies, universities and training centres, and centres of research and technology transfer. The project aims to promote transformation in economic activity by offering modern spaces for strategic concentrations of intensive knowledge based activities in the four key economic sectors of: media, ICT, energy, and medical technology.
22@BCN SA focuses on: the attraction of companies in these sectors, the attraction of skilled workers, the fostering of internationalisation of companies, and the promotion of relationships between universities and companies.

8.5 In terms of social innovation 22@ promotes and organises events that have the aim of fostering informal and formal networks and relationships between 22@ people and organisations. The focus is particularly on building social and professional links between talented individuals and persons with professional skills, and of building a community based around business innovation and quality of life. The district has its own ‘22@Network’, which is made up of the companies and institutions that are developing ‘@’ activities in the district, and also those companies that are making other contributions to the ‘22@’ district. In addition those companies that are intending to settle in the district in the future are also included.

9. Conclusion

9.1 Innovation generation and the successful bringing to the market of new products is a complex and risky task. The examples from the COMPETE cities show a variety of approaches in a variety of different contexts. Networks guide young and also experienced entrepreneurs through the “jungle of the markets” and reduce transaction costs. Professional experience of implementing knowledge is a regional competence, the benefit of which can be maximised through networking, which itself creates comparative advantages by creating an open innovation environment. Such networking activities can have extra added value: e.g. different actors can combine their resources, or actors can use existing regional knowledge using a “pick and mix” strategy, thereby creating new inventions out of existing knowledge. Therefore such networks are the “oil” that keeps regional institutions working, and which create new knowledge. But cities should not rest on past achievements.

9.2 A lot of cities in the COMPETE network are experiencing structural changes, which are the result of decline in a dominating old industry. To avoid severe impacts from changes such as these, cities must look ahead and introduce strategic planning and visionary thinking and tools. What is fascinating about Munich is that despite its current leading position, the city continues to attempt to improve its performance and is always looking ahead in new strategic directions. Other cities mentioned here have experienced the negative effects of the decline of a dominating industry (mostly branches of the “old economy”) and are now eager to seek after balanced economic structures that are sustainable.

9.3 The efforts of public authorities can only be successful if they are supported by their citizens. More and more cities are enhancing their activities to create an innovative environment, and are seeking to reduce the gap between their citizens and their universities. In addition measures and activities aimed at attracting talented and creative people are also taking place.
Connectivity and Urban Competitiveness:

ROTTERDAM

Gijs Broos, City Development Corporation, Rotterdam
1. Introduction

1.1 Connectivity is a key driver that a city can focus on in order to create a comparative advantage. Connectivity involves reinforcing national and international connections and networks by developing airports, seaports, high speed train networks and other hinterland connections, along with ICT infrastructure such as fibre optics. The most successful cities have the physical and electronic infrastructure that allows them to move goods, services and people quickly and efficiently. Connectivity plays an important role in decisions about where to work and invest. The first concern of businesses is access to markets, suppliers and partners, which in the highly urbanised continent of Europe usually means access to cities. Access is an important consideration for knowledge workers. For them, a key factor in influencing where they decide to live and work is the ease in which they can get there and the ease in which they can get around.

1.2 Investment in physical infrastructure by itself is not enough to achieve a more internationally competitive economy however. It is vital that attention is also given to the significance of the increasingly dominant network character of the global economy for individual businesses. Ideas about the network economy are relatively new and cities are only just beginning to define what the network economy is, and how it influences building and infrastructure.

1.3 The challenge for cities and for regions is how to turn investment in infrastructure into economic growth. The questions of what should be developed in terms of infrastructure, and the questions of which policies should be pursued, are of critical importance.

1.4 Rotterdam organised a conference titled ‘city regional connectivity as a motor for competitiveness in a globalising world’. The aim of the conference was to examine the importance of connectivity as one of the key drivers for competitiveness in cities and regions. The main questions posed at the conference were:

- What role does connectivity play as a motor for competitiveness in a network economy?
- How can cities improve their international position through connectivity?
- What are the implications of these questions for key projects and policies?

Why Rotterdam chose this theme

1.5 Rotterdam chose this theme for several reasons. Firstly it has had a long and successful tradition of improving and exploiting connectivity as a motor for competitiveness. This is especially the case with regard to the port and its industrial logistics complex. Also its experiences with intermodal developments of railway stations and airports are of an example standard for other cities.

1.6 The second reason was the forthcoming changes in the city’s own connectivity through the opening of two important international infrastructural linkages: the high speed rail link connecting Rotterdam to the intercontinental airport hub Schiphol, and the Betuwe dedicated freight rail line that will connect the port of Rotterdam directly to Germany and onwards.

1.7 The third reason for the connectivity theme came from the increasing need to look for alternative development strategies. Ideas about more actor oriented strategies instead of locations-specific strategies are becoming more relevant in the increasingly dominant network character of the global economy. Rotterdam wanted to explore the relevance of these ideas and look at how they could be implemented.
1.8 The next section gives a short overview of the current challenges for Rotterdam and the Randstad region. The chapter then focuses on matters raised at the conference on how to improve and exploit connectivity in a network economy. It next reviews the consequences of this new approach for spatial-economic policies for cities. The following section then looks closely at the development of the central station area, the airport and the port developments in Rotterdam. The final section concludes with key policy messages.

Challenges for Rotterdam and the Randstad region

1.9 The Netherlands is historically one of the world’s leading economies and continues to be so with an economy that is very open to international trade and investment as demonstrated by its share of global trade and attractiveness to FDI (foreign direct investment) ii. The Randstad as a region has been the dominant economic region in the Netherlands.

1.10 The maps below show the position of Rotterdam in the Randstad and Rijn-Schelde-delta and the position of the Randstad in Europe.

1.11 Belonging to the ‘core region’ of the EU and containing two important ‘Gateways to Europe’ (Schiphol Airport and the Port of Rotterdam), the geographic position of the Randstad region is favourable. The Randstad and more generally the Netherlands, has taken full advantage of its location at the mouth of major European rivers and overland routes. With the two logistics hubs, it remains the distribution centre of Europe iii. Rotterdam’s location at the mouth of the Rhine river has laid the foundations for a world class port and industrial complex. The city’s economy and the city’s port, function together. The port and industrial complex is Rotterdam’s top international competitive strength.

Map 1: Gateway to Europe - Rotterdam and the Randstad region in Europe

Bron: Rotterdam, ‘Gateway to Europe’
1.12 However, since 2001 the Randstad has failed to keep pace with other European metropolitan regions. While the Randstad ranked highly, according to growth of GDP per capita in the 1990s, after 2001 the region fell to 19th place. Because of this decline, political attention and a willingness to take action have focused on pressure to create a unified Randstad policy to strengthen its position.

1.13 The southern region of the Randstad (including Rotterdam) performs less well than the north wing (including Amsterdam). Knowledge workers and the service industry traditionally have tended to locate in the north wing. At the same time there is a trend for knowledge workers to move to smaller cities outside the Randstad region, mainly for quality of life reasons. The internal connectivity in the Randstad and the connections with other regions is a major problem. In particular, traffic jams reduce the accessibility of city regions. By improving the ease of movement, city regions should be able to become more integrated as single economic functional regions.

1.14 Although there was an economic upswing during 2006, after a period of a cool economic climate, the challenge for Rotterdam remains. The first challenge is that of improving its position within the Randstad by maximizing the potential benefits from the agglomeration, through improvements to internal connectivity. Secondly, while the benefits of Rotterdam's international accessibility have been well developed in terms of maximising its logistical function, more economic value could be achieved by organising new economic activity using flows of people and goods.

2. Exploiting connectivity in a networked economy

2.1 The network economy and network society is a consequence of the increasing internationalisation and specialisation of many economic sectors and an increase in the scale of regions.

2.2 There is a global shift of fragmentation and reclustering taking place. This happens in several ways. Firstly there is a trend that businesses are returning to their so-called core competencies – or to what they are good at and/or what earns them the most money – and contracting out other activities to subsidiaries or specialist businesses (outsourcing). They are simultaneously splitting up their core activities into the smallest possible sub-units and relocating these to wherever is best for them on the basis of cost-considerations, product optimisation, and market access (insourcing). This happens for example in the fashion industry, automotive industry and finance. New regional clusters – which link with local competences - are arising involving businesses and sectors that formerly had little to do with one another. The reasons for clustering are structural (global network economy), offensive reasons (coordination and knowledge benefits) and defensive reasons (protection of core competency), (Luuk Boelens, Urban Unlimited). In this process of reclustering, where businesses are making new alliances, it is important for governments, education and knowledge institutions and overarching business organisations to respond to this.

2.3 If planning is to be relevant as a factor in international competition it must provide an environment for businesses that upholds the economic specialisation of the region and which also is able to connect effectively with the locational advantages of other regions. Unique location factors are still important. When everything is possible anywhere, paradoxically it turns out that certain local aspects become more important. Instead of a simplistic focus on one-dimensional labels based on supposed economic strengths, accessibility or geographical characteristics, long term regional embeddedness should be primarily determined as a matter of business organisation. Locational factors do not purely reflect local circumstances. Rather they reflect the embeddedness of specific local advantages in potential inter- or intra-firm relationships, (Luuk Boelens, Urban Unlimited).
2.4 At the Rotterdam conference Ronald Wall examined these firm networks. He showed that cities and firms cannot be separated from each other, and how they are dependent on one another. Connectivity has a significant role for both companies and cities in managing international relationships. The density of firm connections is one of the measures to reveal international connectivity. World cities like New York with high levels of city-firm connectivity have high levels of sustainability. Whereas regional cities like Rotterdam have lower levels of connectivity and therefore lower sustainability.

2.5 Sustainability traditionally focuses on local units of spatial improvement. But an understanding of a city’s network relationships may contribute to the advanced programming, planning and design of the socio-economic functions of a city. Cities form, together with firms, a network. It is necessary to determine the levels of connectivity of every city to determine the position of that city, and also the economic function of that city, and the differences that exist between cities. With this knowledge it is possible to determine whether cities are more competitors or collaborators.

3. Consequences for spatial economic development

3.1 So what are the consequences of the increasing global competition, the dependency of changing network relations, and the need to link regions with one another?

A regional competitiveness strategy

3.2 Paul Bleumink (Buck Consultants) has described the emergence of hybrid networks which change the relative position of intercontinental gateways, national hubs and regional hubs. Whereas until approximately the year 2000 most intercontinental flows went through the intercontinental gateways, businesses now tend to bypass these gateways and use directly national and local hubs. This is mainly because of time and cost efficiencies. This gives opportunities for regional cities to attract new economic activities.

3.3 Competitive power can be achieved by a twofold strategy. The first is co-operation within the region through a metropolitan strategy and by increasing the logistical efficiency within the region. The second is co-operation between regions through a global economic network strategy and efficiency within the global logistical network.

3.4 Given the growth of hybrid networks, different types of regions should develop specific strategies. Bleumink identifies the following lessons:

<table>
<thead>
<tr>
<th>Type of region</th>
<th>Lessons</th>
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<tbody>
<tr>
<td>Hub-region</td>
<td>new strategy: from airport city or port region into metropolitan strategy</td>
</tr>
<tr>
<td></td>
<td>development of clusters with many intercontinental flows of goods, persons and data</td>
</tr>
<tr>
<td></td>
<td>international, national, regional and local connectivity are essential to attract new businesses</td>
</tr>
<tr>
<td></td>
<td>Co-operation with other continental hubs can be an interesting tool to improve regional economic development and connectivity</td>
</tr>
<tr>
<td>International node-regions</td>
<td>Use strategic economic clusters as the basis for the development strategy, manufacturing, R&amp;D and logistics</td>
</tr>
<tr>
<td></td>
<td>Continental, national, regional and local connectivity are essential to attract new business</td>
</tr>
<tr>
<td></td>
<td>Connectivity with hubs is essential</td>
</tr>
<tr>
<td>Regional node-regions</td>
<td>Connectivity with international hub nodes is essential</td>
</tr>
<tr>
<td></td>
<td>Relative low costs, less congestion can make direct links attractive</td>
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<tr>
<td></td>
<td>Corridor regions are successful</td>
</tr>
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A business-like approach

3.5 Acting in a global world involves competition, and cities need the right strategy to sustain their development in this competitive environment. One of the biggest weaknesses of cities today is that they don’t change fast enough to keep pace with the environment. Governments are often stagnant. It is important for cities to look at their own organisation and think about how to improve their operation. This includes marketing & sales, distribution, R&D, back offices, production, etc. As Natal da Graca noted at the Rotterdam conference, this needs a business-like approach from cities.

3.6 Four central themes in this approach are:

- having a customer orientation by finding out what they need and adjusting strategies accordingly;
- being proactive by learning faster than the competition and speeding up development;
- being market oriented and learning from competitive experiences for example in financial engineering;
- being competitive by having the attitude to win.

A unique international profile

3.7 Increases in mobility have offered cities a new set of customers and markets with whom they can engage. Cities attract a wide range of players - new growing firms with their innovators and entrepreneurs, foreign students, a new generation of footloose workers, institutional investors, globally developing companies, university campuses, business schools, laboratories and science centres, artistic and cultural facilities and the investment programmes of national governments, multi-national investment and lending institutions, major events, major sporting events, and business shows. All these new growing markets are interdependent. Therefore, city policy like city branding and marketing, effective interaction with global firms, overall openness of the city, amenity factors, cultural factors, economic factors, regulatory factors, risk factors, etc., must be integrated.

3.8 Cities have in general little experience of developing an integrated international policy. However some cities have succeeded in putting themselves on the map and have been able to make themselves more attractive to foreign investment. Some examples are given in the box following:
Positioning the city in a globalising world - policies from European cities

Barcelona
In Barcelona the concept of connectivity is understood and sought after in a comprehensive way, taking into account not only issues relating to physical mobility (e.g. the importance of having a strong port, an airport with good international connections, a high-quality regional railway covering the Metropolitan Region, a high speed train connection with Europe, etc.) or virtual connectivity (e.g. the need to expand the broadband telecommunications network), but also issues helping to reinforce the position of the city in the international context. This third “leg” of connectivity has been considered as crucial for the positioning of the city in the globalised world.

During the late 80s and the 90s strategies aiming to reinforce Barcelona’s international position were mainly defined on the basis of five policies:

- Hosting international events: the Olympic games.
- Consolidating regional leadership in the Euro Mediterranean region
- Promoting the city as an international centre for congresses and trade-fairs
- City branding
- Promoting tourism

In the 90’s and 2000s the city has incorporated other factors into the strategy to consolidate its international position. City branding and tourism still play an important role, but at the same time the city is seeking to integrate the economy into the world innovation and knowledge networks. Three main policies to highlight are:

- Promoting innovation and creativity
- Fostering participation in the knowledge international networks
- Attracting talent

Finally, an additional transversal factor has accompanied all these policies over the years: strategic planning. After San Francisco, Barcelona was one of the first cities in the world to incorporate a strategic planning framework into the city planning. The Barcelona Strategic Plan Association is a non-profit, public-private association, set up in 1987. Nowadays it has more than 300 members representing the main political, social and economic stakeholders in the territory. Two main outputs have come out of this partnership that have contributed a great deal to the success of the international positioning of Barcelona: public-private cooperation and shared long-run strategies.

Helsinki
Helsinki’s focus is on becoming a world class centre for business and innovation. This is clearly stated in the common vision formulated by the main stakeholders in the Helsinki Metropolitan Area. Due to this common goal and the ability to implement it, Helsinki has succeeded in becoming an international centre. But Helsinki’s core concern is that of the welfare of its residents, and it has not given much focus to the image of the city abroad.

Munich
Munich has long term sustainable strategies to cope with international competition. The following three pillars of the strategy are stressed: image, international learning, and infrastructure.

Some measures that they have taken are as follows:

* to keep and attract international companies and institutions like the European Patent Office.
* to improve the public infrastructure which is necessary for international business (like the Munich Trade Fair and Congress Centre)
* to co-operate with important global players (like BMW) or the universities at the global stage
* to keep the international flair of the city by supporting international cultural activities, and attracting students from abroad
* to create public service for the international community like public relocation services
* to support the international community by i.e. specialised childcare offers
* to improve the knowledge skills of public officers
* to organise international marketing or tourism campaigns and to support marketing campaigns targeting Munich stakeholders
4. Nodes for improving connectivity

Port Development

4.1 The Port of Rotterdam is the world’s third port after Shanghai and Singapore and first in Europe in terms of throughput. The economics of the port of Rotterdam are characterised by: (1) resource dependency, (2) high added value for employees, (3) relatively low patenting in the port industries because of the chemical industry there, (4) innovation based port industries related to off shore and dredging. The economic impact of the port on the region is varied. Nijdam (Erasmus University) cites the positive impacts as including: direct employment, retained earnings, state and local taxes, and indirect employment through the purchases of goods and services by firms. What makes the Port of Rotterdam a leader in this position is its nearness to deep seawater, hinterland connectivity, investments in the container sector and the Rotterdam Energy port.

4.2 The Port Authority has undertaken expansion plans to enlarge two terminals, named Maasvlakte 2. The warehousing and storage area has had to be expanded because of the growth in the market of bio-fuels, which have required the ability to receive huge vessels such as the Emma Maersk (13 thousand TEU). The Port of Rotterdam has a very well developed system of hinterland transport with barges and roads and pipeline connections. But rail transport must be improved in the coming years. Rail infrastructure is very important and has a great future in the case of the Port of Rotterdam. The rail freight connection from the PoR to Germany is a key part of plans for increased rail use. And future plans include more rail corridors from the PoR to west and central Europe.

4.3 Efforts to develop the port focus on two traditional fronts: firstly creating more development space and secondly improving accessibility. The nature of the global network economy requires a focus on a network oriented strategy in response to and in combination with the re-clustering and re-organisation of logistical activities. This does not detract from the importance of volumes however. A network oriented strategy creates scale economies in the logistics network, and connectivity growth. Connectivity growth attracts more businesses. The writer Boelens however argues that Rotterdam needs to transform from a tranship mainport into a global logistics service city. This role as a service hub depends upon the improved regional embeddedness of the port complex among other (maritime) service providers and knowledge institutions in the region, as well as with the strengthening of the cluster of skill based logistic providers in and around the Rotterdam region.

4.4 The port and the city have to collaborate not only in upgrading logistics, but also in improving services for the maritime industry, upgrading the chemical complex, and developing the energy cluster.

4.5 For the energy cluster, the city of Rotterdam in collaboration with the PoR, the environmental service for the region, and the employers association of Port Companies, has developed the Rotterdam energy and climate programme. The ambition is to be the world’s capital for CO2-free energy. By becoming a leading city for the Clinton Climate Initiative, Rotterdam will position itself favourably, on the international scene.
Station redevelopments

4.6 Connection to the High-Speed-Train (HST) network for many cities provides the momentum needed to redevelop their station areas. Many local authorities have drawn up ambitious plans for the redevelopment of the zones at and around HST-nodes. The expectation is that these redevelopments will enhance the accessibility and economic attractiveness of metropolitan centres, and will attract new urban activities and residents. The advent of the HST can be an opportunity to renew and/or strengthen the urban economy, to change the modal split in favour of more environmentally-friendly modalities, and to improve the image of the metropolitan centre and its urban region. The HST-connection may affect the regional economy in two ways: it may act as a catalyst or it may have a facilitating effect. A catalytic role is achieved when the connection to the HST-network draws new activities to an urban region in transition and thus causes the economy to grow. A facilitating role occurs in cities with a prosperous local economy, which need new infrastructure to accommodate their economic growth.

4.7 The connection to the HST-network gives momentum for urban actors to make additional investments in station areas. The net effects of a HST-connection depend on whether these investments adequately address discrepancies in the station area and its surroundings and anticipate new opportunities. Research shows that a HST connection has positive spatial effects when it is explicitly used and directed by the city planners (Schütz, 1996; Troin, 1995). Conversely, when no additional investments are being made, cities are more likely to face no spatial improvements from the advent of the HST, or worse still, backwash effects (Peter Pol, Erasmus University Rotterdam).

4.8 For the development of the Central Station in Rotterdam, the ambition was to match the standards of Central Station developments in other European cities.
4.9 Rotterdam Central Station most resembles the European level of development. The biggest volume of land use will be for businesses, but there will also be room for living, recreation and other city functions. It must be an attractive habitat for visitors as well. The name of this concept is the ‘glocal’ city district. Glocal stands for a local network of activities, with spin-offs for Rotterdam, and at the same time functioning in a global network. Several multinationals, such as Unilever NV, are already situated in that area. As an organisational model the WTC or business district concept is used, but the aim is to create an open network of businesses and services.

### Lessons from European cities for railway stations

#### Lyon
Located on the main north-south and east-west axes of Europe, close to both the Mediterranean and the Alps, Lyon has capitalised on this geo-strategic advantage to develop an exceptional network of transport connections. Having two high speed train stations in town and one HST station near the airport (Saint-Exupery), Lyon is well connected by train. The lessons (and challenges) for Lyon are on the one hand developing the stations in relation to one another and linking them to projects in the catchment area, and on the other hand improving the inter-modality of Saint-Exupery airport.

#### Munich
This project has included the modification of the station and the redevelopment of its surrounding area. There have been significant changes to the railway system with the connection by tunnel to Munich airport, speeding up passenger flows. A masterplan has been done for the station’s redevelopment to improve its competitiveness. The modification of Munich Central Station has comprised of a new design for the station and better connections with the city. The redevelopment of the station area has encompassed parks, housing areas, and restrictions on very high buildings due to the architectural heritage of the city. This is the value of the area that is covered by the Masterplan of the station.

#### Berlin
Berlin Station Hbh. was intended to become the cross station for passengers coming from the West, South or East sides of Berlin city. The major goal for the train station refurbishment was to carry out landscaping to turn it into a heritage place in the city. The newly modernized station was given a tourist attraction denomination after its opening in 2006. Berlin station project development has taken longer than anticipated to complete, but the city can be proud of the result. The result has been even better then expected. Locals and investors are satisfied with the node’s new looks and the excellent facilities and opportunities that the station offers. But the development is still in progress, so whether the Central Station brings the intended spin offs shall be seen in the future.
Airport Development

4.10 Rotterdam Airport is a regional airport with 1.1 million passengers each year. It is run by Schiphol airport (42.5 million passengers). In cooperation with Schiphol, Rotterdam Airport is further strengthening its role as a high-quality regional-airport specialising in European business destinations. The attraction of Rotterdam airport is that it can be a quick airport to use. The main challenges for its expansion are environmental legislation, the relatively small home market, and the connection by road and rail.

4.11 Schiphol airport has succeeded in becoming one of the most important hubs for air traffic in Europe by attracting large numbers of transit passengers. This is one of the reasons why many international companies have settled in the Randstad. Schiphol airport lies between Amsterdam and Rotterdam and is therefore as important as Rotterdam Airport for the economy of Rotterdam.

4.12 The Rotterdam airport development is part of the broader developments on the north side of Rotterdam which consist of new living quarters, a science park development and infrastructure. The goals for the science park are three-fold: (1) attracting international companies, optimizing international connectivity, and facilitating airport dependent companies, (2) innovation by expanding the medical cluster, high tech development, and general R&D, (3) quality of life by creating top segment housing.

Lessons from European cities for airport development

Lyon
The Saint-Exupery airport is currently under development to strengthen the international dimension of the metropolis. The airport handles 6.6 million passengers each year. The location has potential in that the location has important land reserves and hence has the possibility of increasing the catchment area. But there are some difficulties concerning the diversification of its offer, due to Air France’s leadership on the platform.

Actions undertaken by the Greater Lyon government are part of a partnership programme, in synergy with the region and the department, supporting a club for entrepreneurs and even participation in the governance system of the airport.

Barcelona
Barcelona airport is owned and controlled by the Spanish state. It is located close to the city centre, and close to the industrial cluster and port. The airport’s capacity is for 25 million passengers each year with allowance made for up to 5 million extra passengers. The airport’s accessibility is covered by private means of transport due to the supremacy of cars and taxis and because of relatively cheap car parking at the airport. The airport is also accessible by buses and trains. Future plans have been drawn up for Barcelona Airport City but these ideas require collaboration with the authorities in Madrid. The State’s control of Barcelona airport brings difficulties for Barcelona policymakers who otherwise would make autonomous decisions regarding changes. The Barcelona airport plays an important role in European air traffic, in its role as a hub.

Plans for the airport’s enlargement foresee a new airport terminal and also construction of an underground road. The preparations are for the airport to handle up to 55 million passengers per year. The private sector will be engaged in the airport’s governance. The state will involve a variety of different stakeholders.

The airport’s main challenges are: alliances of airlines and development of the cargo space, and most importantly, commercialisation of the airport. In addition the plans for Barcelona airport must take into account regional sensibilities. The airport has based its growth ideas on Amsterdam airport Schiphol which has increased the attractiveness of Amsterdam as a place for businesses and investments.
5. Conclusion

5.1 Rotterdam and its surrounding Randstad have a good international position through good infrastructure, efficient logistical hubs and a well developed international network. Current efforts to improve its connectivity by investing further in road, rail and air infrastructure will strengthen this position even more. But the greatest challenge for Rotterdam is not just creating a hub (with a low added value logistical economy), but in maintaining and attracting companies which offer high added value. The danger of a back wash effect, (businesses and people leaving the region) because of good connectivity is paradoxically very threatening.

5.2 What can we conclude on the role of connectivity for competitiveness and how can we improve our connectivity in order to maximise our economic growth?

5.3 Connectivity is important as an enabling force for creating conditions that attract business and people, and consequently cities should invest in it. But because of economic changes this is often not enough on its own. Increasing internationalisation and specialisation of economic sectors, and an increase in the scale in which business and people operate, creates increasing competition. We need a better understanding of how this affects locational behaviour. A network analysis of businesses is a good approach for doing this. Cities are connected with each other through city-firm networks. By collaborating or competing with the right region, a city can strengthen its position in the world network and therefore increase its level of competitiveness.

5.4 Logistical efficiency is a primary goal but on its own is not enough. To maximise economic spin offs from logistical hubs like the ports, central stations and airports, additional investments in surrounding areas are necessary. Creating a unique (economic) profile and having an international branding strategy will position a city in an international context still more.

Key policy messages for success

Positioning cities

5.5 Firstly it is important to know what position your city region has in a wider network and to determine what you’re good at. A good approach is to look at networks, clusters and business chains. Then make a choice about what you really want to be good at.

Being customer oriented

5.6 Once you have attained a focus it is important to know who your customers are and to understand what they want. This is important for determining the conditions that are necessary to create the right (physical and non-physical) environment.

Choosing options

5.7 The next step is to choose your instruments. Cities have a wide spectrum of instruments like real estate, land management, economic policy, cultural policy, marketing and access to networks of governmental, educational or commercial organisations. By using them in a coherent way the prospects of success will be increased.

Implementation

5.8 Last but not least, the way in which cities realise their plans and ambitions is the decisive factor. This involves: speeding up development because cities are in competition; using all financial options and being creative; using all organisational options like alliance management; setting up the right management to ensure that the quality of and maintenance of relations with current and potentially new customers is done well.

i Cities and the Lisbon agenda, European Commission
ii OECD, metropolitan governance and competitiveness; the case of the Randstad, the Netherlands.
iii 3.25 % of the global trade in 2002, WRR, 2004
iv Territorial Review, Randstad Holland, OECD 2007
v Clark, G (2006), Cities, openness, and the competitive advantage of diversity
Cluster Policy and Urban Competitiveness: LYON

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1. Introduction

1.1 Lyon focused upon the theme of cluster policies and strategies with the intention of identifying key success factors. The conference focused on Lyon clusters while also presenting developments from Barcelona, Dortmund, Munich, Helsinki and Leeds.

1.2 Located in the southeast of France, Lyon is the capital of the Rhône-Alpes Region and with 1.7 million inhabitants is the second largest city in France after Paris, with a GDP of 146 million € (2004), 117,000 firms, 76 company headquarters with more than 1,000 employees, 750,000 public and private employees, 144,000 students and 10,000 researchers, its economic potential is also the second most important in France.

1.3 Economic development in Lyon is closely linked to its location in the south east of France at the meeting point of the river Saône and the river Rhône which places it on one of the oldest trading routes in Western Europe, a place that has been a centre especially for silk and banking. Since then, Lyon has developed into a manufacturing and industrial centre which in the 1960s was dominated by petro-chemical production, the chemical and pharmaceutical industry including vaccines, textiles and heavy vehicle industry and mechanics. Structural changes during the 1970s and 1980s have changed the economic landscape in Lyon resulting in a reduction of employment in industrial sectors by almost 25%, which in turn had important socio-economic consequences. Deindustrialisation hit Lyon as in many other European cities.

1.4 Almost 75% of the 750,000 jobs in Lyon today are in the tertiary sector and 25% of all jobs are in the public sector. However, the economic structure of Lyon is highly diversified: 35% of the workforce is employed in consumer services - health, education, social services and administration, 22% in business services, financing and real estate, 17% in the industrial sector (still higher than the French average), 14% in commerce, 6% in transport, 5% in construction, and the remaining employment in agriculture. This diversified structure has played an important role in constantly reducing the consequences of deindustrialisation, and avoiding the kinds of major economic crises seen in more specialized cities.

1.5 This diversity is also underlined by the presence of five competitive clusters: 1) health and biotechnologies with 67,000 jobs, 2) Chemical production with 22,000 jobs 3) transport systems with 12,000 jobs, 4) technological textiles with 4,000 jobs and 5) digital leisure with 1,000 jobs. The IT sector accounts for 30,000 jobs and Lyon’s fashion and design sector for 15,000 jobs. Other areas of growth are within construction, logistics, leisure, finance and real estate business and industrial services.

1.6 The importance of the service industry has today made Lyon an important decision-making centre. This development has been concentrated in the Part-Dieu district, which has nearly 1 million m² of service industry, the second largest services centre in France - after La Defense in Paris. Even though there is a trend towards the concentration of companies in big cities, a parallel trend of decentralising certain decision making functions has had a major impact on Lyon. The city has a range of management, research and design functions such as Euronews, Interpol, the Ecole Normale Supérieure-Sciences, French Rail’s computer headquarters and others.

1.7 The attractiveness of Lyon is also linked with the presence of talent. With a total of 130,000 students, Lyon accounts for more than half the student population of the Rhône-Alpes Region. The four universities in the city have 80,000 students and the largest of them – the Claude Bernard University of Science and Medicine – works in close association with local research facilities and business. Research is another active area with 10,000 researchers at work in 275 public and private units.
1.8 In a context of intensified inter-urban competition, place attractiveness and quality of life are becoming increasingly important for the economic development and success of cities. Well connected by highway, high-speed train to Paris and the rest of France, an airport serving the large European cities while situated closely to the Alps as well as the Mediterranean Sea, the location of Lyon has become an important asset for its economic development. The old city in Lyon and quarter of Croix-Rousse was in 1998 added to the UNESCO World Heritage List. The city is considered the gastronomic centre of France. Culture has gained an important role in the city with the growing success of large events such as the Biennale of Contemporary Dance (the largest of its kind in the world), and the Light Festival each year attracting more than 1 million visitors. Combined with low competitive costs and real estate prices - 30-40% lower than the European average - the place-attractiveness of Lyon today consists of geographical, infrastructural, architectural, cultural and economic factors.

2. Grand Lyon and economic development

2.1 As the country in Europe with the highest number of municipalities (36,000), France made it possible in 1966 to create the so-called “communautés urbaines” with the aim of strengthening the coordination and cooperation between the administrative structures and the geographical reality of the largest French cities. Urban development was intended to be delivered in a more rational and effective way by encouraging stronger coordination and solidarity between the member communes by pooling powers and financial resources.

2.2 Today Grand Lyon consists of 57 communes covering an area of 51,500 hectares. Its population amounts to more than 1.3 million inhabitants, which is about 80% of the entire population in the department Rhône, for an area covering only 16% of the Rhône territory. The Grand Lyon is organised around a council, a bureau and its president. The council is composed of 157 members which since April 2001 has been chaired by Gérard Collomb, the Mayor of Lyon. Council members are appointed in their respective commune for a duration of 6 years.

2.3 With a budget for 2007 of 1567.03 million euros (almost equivalent to the budget of the Rhone-Alpes Région), the financial resources of Grand Lyon are collected from the taxes on professional activities (32%), state grants (25%), different resources (20%), subventions (14%) and loans (9%). Grand Lyon has a number of responsibilities within the field of urban development and maintenance covering the 57 member communes. These can be divided into the following headings:

- Everyday maintenance: Road, water systems, collection of household rubbish, public transport and parking facilities.
- Urbanism: Preparing urban land-use plans, housing issues, public spaces and delivery of public equipments.
- Economy, land and real estate: Economic development plans for the Lyon métropole, installation of companies, and land reserve policies.

2.4 To stimulate economic development in Lyon, the Greater Lyon Authority has developed a number of policies to strengthen the city’s socio-economic development as well as its position in Europe. These policies include:

- The development of international clusters within the biotechnologies, chemical environment, transport systems, fashion and design and digital leisure.
• The development of an economic governance approach, entitled “Greater Lyon, a business spirit”. When facing the competition of international metropolitan areas, the ability of players in a region to combine initiatives remains an important advantage. Around 100 organisations and businesses are members with each involved in accordance with the principle of subsidiarity.

• The formulation of an entrepreneurial approach supporting business start ups and stimulating the economic climate. This policy has led to Lyon having France’s highest business start up rate during recent years.

• A strong involvement of local authorities in research networks (Reseaux Thématiques de Recherches Avancés) and the development of common university branding (one common goal: pushing the university of Lyon into Europe’s top 30).

• The development of a key account management approach involving 30 key companies in Lyon. The aim is to strengthen relationships between key actors in the private sector, respond to their plans and requests effectively while developing a business development strategy with the support of key private companies. This policy of specific contacts is also applied to smaller companies, through a specific local network.

2.5 These policies illustrate the important role of the public sector with its economic and political resources at a local level, allowing the implementation of an economic policy adapted to the economic structure and characteristics of Lyon. In particular the cluster policy has been important in supporting and stimulating the development of the industrial tissue in Lyon. Examples of this are the pharmaceutical industry and the chemical industry, both of which are deeply rooted with wide industrial bases into the economic tissue of Lyon. The national cluster policy has been used as a way of boosting local economic development initiatives already in place.

3. Economic clusters - definitions and policies

3.1 The idea of industrial cluster policies has developed into a trend within urban and regional economic development policies indicating a shift from traditional economic development programmes. These principally focused on policies oriented towards individual firms. Instead cluster policies are based upon the assumption that firms and industries are inter-related in direct and in-direct ways. There have been many different attempts to define the precise meaning of the term ‘industry cluster’ which was popularized in 1990 by Michael Porter in his book: “The Competitive Advantage of Nations”. The academic world has since debated the precise definition of a cluster and without entering into this territory, a cluster can be characterized by the following components:

• A cluster is a dynamic phenomenon caused by the interaction and functional relationships between the firms and industries constituting the cluster.

• Geographic scope and spatial proximity is the second important element in the definition of a cluster. However, no uniform definition can be identified for the appropriate geographic scope of a cluster.

• Finally, a cluster is not to be confused with an industry concentration. The cluster literature insists on the importance of looking beyond individual industries thereby focusing on the functional relationships between industries and the interdependent and dynamic relationships that characterize clusters.
3.2 Since Porter introduced the concept of the competitive cluster, cluster development has become the focus of many government programmes. This has also been the case in France with the introduction of the “Pôles de Compétitivité” in 2003 as a centralized economic development policy, which is located within a French tradition of a strong centralized administration combined with a strong history of territorial management. This specificity has historically generated certain tensions and resulted for example in the 1980s in the decentralization process which delegated a certain number of competences to the local authorities, such as the issuing of building permits which was previously a centralized matter. The decentralization of French administration is a continuing process even though important policy competences are still under national control for example the TGV high speed trains, motorways etc.

3.3 The policy of the “Pôles de Compétitivité” is applied by the French Government to industrial cluster projects which meet the following four criteria:

- The cluster should be part of a development strategy that remains consistent with the economic development plan in the cluster’s local area;
- It should have sufficient international visibility, in terms of industry and/or technology;
- It should be a partnership between players and a structured, operational mode of governance;
- It should have the capacity to generate synergies in research and development, resulting in the creation of new wealth with high added value.

3.4 A total of 66 clusters were designated by the French Government out of a total of 105 applications. Of these, 6 are global competitiveness clusters (with the strongest financial support) and 10 globally oriented competitive clusters. The 50 remaining designated clusters are regional clusters with more limited financial support. The total national budget for this cluster policy was fixed for a three year period (2006-2008) at a minimum 1.5 billion Euros. These finances are principally designed to support R&D projects. Several local authorities add further financial support to clusters in their area.

3.5 A cluster is defined as a combination of companies, research and education organizations engaged in a partnership designed to generate synergies around key innovative projects. The partnership is focused upon a market or technological and scientific field with the aim of generating critical mass thereby strengthening competitiveness and international visibility. The cluster policy therefore tries to directly engage companies, educational institutions, research organizations and other agencies involved in innovation by encouraging partnership-working within the same markets and developing shared R&D projects. The French concept of a cluster is closely connected to a project approach - with the cluster acting as a forum for the creation of collective projects between companies, research centres and academic institutions. R&D projects are the cluster’s core activity and constitute the main factor of their competitiveness. However, non-R&D projects: training, property investments, ICT infrastructures, monitoring economic developments, promoting local areas, and international expansion, also make key contributions to the competitiveness of the cluster’s companies and the local area’s economic development.

3.6 The governance of the cluster is defined by the national cluster policy. Each cluster is represented and led by its own legal entity which is required to give preference to industrial, scientific and academic players in its governing body. Local governments are also represented. The association has a permanent team which plays a major role in facilitating the creation of projects between the cluster’s various participants.
The state and the local government finance these governing entities and a framework agreement governs the relationships between the cluster, the State and the local administrations involved.

3.7 In summary, French cluster policy is characterized by the lead role of central government and the subsequent importance of regional and local management. The 66 designated clusters work primarily in a project approach involving the industrial sector. The clusters need to comply with the local economic development strategy, and the governance of the cluster needs to involve all of the relevant actors, which is perceived as a key success factor. The prerequisite of becoming a “pole de compétitivité” in Lyon is the involvement of major companies. It is impossible to start anything of importance if there isn’t a headquarter company located in the area. Secondly it also requires research potential, especially public research covering the technological and organizational gaps that the private sector cannot fulfill because it’s not profitable in the short term or is too expensive. Universities’ engagement is therefore needed to make those strategies sustainable in the long run and to complete the three necessary components for the triple helix.

3.8 Finally, it must be noted that the large number of designated clusters in France has been subject to some criticism claiming that instead of strengthening competitiveness with highly concentrated financial support to the individual cluster; the policy has instead been thinned out with the new objective of stimulation of regional economic development. However, it is too early to evaluate the impact of the distribution of the financial resources.

4. Strategies and policies in Lyon

4.1 The economic clusters described earlier have become an integrated part of the general economic development policies in Lyon. With 5 designated “Pôles de compétitivités” out of the total of 66, Lyon has the greatest number of Government designated clusters in France. Greater Lyon which initiated and participated in the development of Lyon Biopôle and Axelera has decided to invest 13.2 million for the period of 2006-2008 and co-finance with the French State and the Rhône-Alpes region projects of R&D within the five designated clusters in Lyon. These are:

- Lyon Bio Cluster: Health and biotechnologies
- AXELERA: Chemicals and environment
- Lyon Urban Truck & Bus: Transport systems
- IMAGINOVE: Digital leisure
- TECHTERA: Technical textiles

4.2 The economic structure of Lyon is characterized by a number of major industrial sectors such as biology and health, chemistry and environmental development, transport systems, textiles industry and digital leisure. This diagnosis has created the basis for, as well as fuelled, the development of a coherent cluster strategy for the Lyon metropolitan area and the designated clusters’ focus on these themes.

4.3 However, a certain number of criteria were also identified as crucial for successful designation:

- A critical mass at the economic level with the presence in Lyon of leading companies in different sectors such as bioMérieux, Sanofi-Pasteur, Merial, Rhodia, Renault Trucks, Areva, Total, etc. Also the presence of a performing SME network representing the entire value chain from the conception of the products to the industrial production.
- A scientific and academic environment of a very high level with the presence of a major university hosting well-known research units especially within the sector of biology and health - from INSERM to the University Claude Bernard
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4.4 Grand Lyon offered a series of services to the cluster:
• Assistance in the piloting of the cluster and the putting into place economic actions, international promotion, and the creation of transversal projects.
• Support in engineering the development of the cluster in terms of animation, and R&D projects. This includes public/private research projects with the aim of putting on the market new products and services within a five year time frame.
• Mobilisation of the SME-SMI and supporting the implementation of economic activities to strengthen critical mass criteria.
• The writing up of self evaluation criteria.

4.5 Grand Lyon also supports financially the individual R&D projects in the five Lyon clusters with the aim of developing local economic activities and local employment.

5. A cluster example: Lyon BioPôle

5.1 To exemplify the workings of cluster policies, we focus on the Lyon BioPôle. This cluster is being co-developed by Greater Lyon and its local partners and is designed to make the Lyon metropolitan area a world leader in the area of diagnostics and vaccines. Historically the pharmaceutical industry has played an important role in the economic development of Lyon. And the city today hosts some of the best and most well-known specialists in the pharmaceutical industry.

5.2 The Lyon BioPôle knits together a list of key characteristics which have enabled this cluster strategy to be created:
• The historical role of bioindustries in Lyon with an important impact on the bio industry through for example the presence of the Institute Mérieux. Lyon is already a world leader in the production of biological products.
• A complete chain of development.
• A strong education and research potential with the presence of large research and education units.
• Proximity to the city of Grenoble with its strengths in nano technologies and thereby promoting the axis: Lyon-Grenoble.

5.3 In this context, the goals of the BioPôle have been identified as the following:
• Organize and develop the organization of multipartner R&D projects.
• Optimize human and financial resources on projects carried out by the cluster by strengthening their quality.
• Organization and animation of networks.
• Promote Lyon BioPôle regionally, nationally and internationally.
5.4 These goals are to be achieved by an association headed by a president, with an administrative council consisting of 6 local industrialists, 4 representatives from research and university institutions as well as 3 invited key personalities. The BioPôle is run by an association team and a technical group also made up of persons from industry, and from research and university institutions. Finally, the association consists of members categorized as active members, partner members and associated members corresponding to the fees paid by the members. Members of the association are offered a number of services such as access to R&D partnerships, financial support to support shared R&D projects, the use of the Lyon BioPôle logo on specific projects and the sharing of technological facilities which are the property of the Pôle.

5.5 The financing of Lyon BioPôle in 2006 was organized around three themes: 1) the setting up of R&D projects. Budget: 347,244 €. 2) animation of the BioPôle. Budget: 620,116 €. 3) international development and promotion. Budget: 138,860 €. Of this total budget of 1,106,220 €, 36% was financed by private funding and the remainder financed by the public authorities such as the French state, the region of Rhône-Alpes and Grand Lyon.

5.6 The creation and financial support of R&D projects is a key element within the Lyon BioPôle. One example is the R&D project of Micro Vax. The objective of this project is to develop and make available for health professionals a system of vaccination through the use of micro injections allowing the delivery of precise micro-volumes of vaccine. Actors involved in this project include Becton Dickonnson, which is a world wide leader within the field of administration of injectable medicaments and vaccines. Also involved is Sanofi Pasteur, which is a world leading company within the field of infectious diseases. The budget for this project, for the period 2006-2008, is 22.3 million €, with a 517,700 € contribution from Grand Lyon.

6. Cluster policy in Lyon - an initial evaluation

6.1 The pôles de compétitivité policy has been in place for about two years which makes an initial evaluation possible. First some key statistics:
- About 500 companies and laboratories are taking part in the different poles
- 65 research and development projects have been financed and integrated into the poles.
- The R&D projects are financed by public funding (one third) with the rest financed by the private sector. For SME projects public finance amounts to 45%
- A project is under way for the creation of a centre of infectiology in the context of the Lyon Biopôle
- Creation of a research project dealing with chemical issues (Axelera)
- The creation of a motor try out unit (LUTB)

6.2 In addition the clusters have also developed several transversal projects such as TECHTERA, which organises workshops on innovation that have involved more than 130 companies, AXELERA which has developed 6 transversal projects focusing on education and entrepreneurship, LUTB which is organising a world wide transport forum in 2007, and IMAGINOVE which is implementing a competition on commercial innovation.

6.3 The policy of the PdC has had the effect of giving Lyon the recognition as a leader in the industrial areas in which clusters have developed. In addition, the cluster policy has resulted in greater financial support for the Lyon metropolitan area from state and regional governments. This has also increased the attractiveness of Lyon for companies in regard to both setting up activities or maintaining activities that might otherwise have been at risk of decentralisation. It is too soon to get a precise idea of the impact upon the image of the area, especially for attracting a high skilled labour force.
6.4 The following conclusions can be drawn from the initial experience of the poles:

- They stimulate levels of R&D
- They strengthen the development of private firms because projects are introduced locally
- Public research is being targeted to meet the needs of companies
- They increase awareness of the offers, needs and expertise of laboratories
- A pole stimulates economic development in as well as the development of sites.

6.5 Some key lessons can be learned from the Lyon cluster policy experience:

- There are divergences in the characteristics of the clusters in Lyon. Some have cluster characteristics (Lyon BioPôle/AXELERA) while others do not (IMAGINOVE and TECHTERA).
- Economic diversity matters and is increased by clusters.
- Strong political leadership is crucial for supporting and financing clusters
- Poles boost innovation.
- Governance and public private partnerships are crucial.
- Public sector investment is crucial.

6.6 Four main factors explain why the “competitiveness clusters” appear to be successful in the Lyon city region. It is important to put the lessons into their specific context. The “pôles de compétitivité” have enabled Lyon to concentrate upon specific local qualities, and to structure them around common and clearly identified projects.

6.7 As we saw earlier, competitiveness clusters target industrial development. They are mostly based on research programmes that link partners with concrete anticipated industrial and technological outputs, something that is also seen in the Italian districts or in the German technological clusters in the different Landers. They tend to work well in territories that have important R&D potential, powerful industrial leaders and well organized universities.

6.8 As the introduction showed, the city region of Lyon still has a powerful and diversified industrial base. This is a distinctive asset compared with many French or European cities. Global value chains despite deindustrialisation can still be found in the area in many sectors, ranging from research and development, to production, selling and marketing functions, and even headquarters’ functions. These complete value chains have been a considerable asset in this policy, where all inputs are easy to find locally. Lyon has a diversified economic base where many interrelated sectors are well represented: pharmaceutical, chemical and environmental technologies, vaccines and electronics, bio industry and nanotechnologies, petrochemicals and heavy vehicles. This, as can be seen in some of the clusters’ R&D projects, generates cross-fertilization and a more integrated view of the industry value chain, integrating services and recycling. This multi specialized approach is regarded by many as a real asset for the future, as in the case of the creative industries.

6.9 A good example of this industrial orientation can be seen in the case of the creative industries. These industries, which are very oriented on culture, information and media in English cases, rest on a more technological approach in Lyon, including for example design, technology & products, and customers’ universes. In the case of the pôle de compétitivité, the city’s assets were clearly in research and in being home to a number of industrial leaders. The pôle de compétitivité should enhance and increase the importance of the university and education in the city in the future.
Governance matters

6.10 Lyon is a city of networks and consensus. There is a powerful historical tradition of partnerships between different types of players including industrialists, merchants, politicians, banks and even the church underpinned by a strong habit of informal networking. This tradition of partnership working is crucial in understanding the success of the Pôle de Compétitivité. This unusual culture of consensus for a French city, has contributed over the years to a coherent economic policy despite political changes. This favorable climate resulted in the establishment of partnerships between political leaders, companies, the chamber of commerce (CCIL), Universities (Pôle Universités de Lyon), even SME’s, as shown by the example of the unique form of political and economic governance: GLEE (Grand Lyon l’Esprit d’Entreprise). This has led to a global goal, and a global economic strategy which is shared by the different stakeholders in the area. It helps to develop binding relationships with companies. This proximity between public and private partners is quite close to Public-Private Partnerships or at least is a powerful incentive to achieving them.

6.11 Global governance has created a climate of trust between the private and the public sector. It has made it easier to engage companies in competitiveness clusters from the early stages. In later stages, it has led to a specific form of cluster governance, with a very high involvement of private companies.

Powerful public institutions

6.12 There has also been strong and coherent political leadership to push through these partnerships. And of course they have the money to back the policies from state, regional and local levels. Also, public institutions have the wide range of competences, incentives, and financing to promote these partnerships.

Place quality and clusters

6.13 The experience of Lyon’s clusters also underlines a more general debate about urban competitiveness. There is no doubt that the overall attractiveness and quality of life in the Lyon area was a major asset in attracting and retaining the talent necessary to promote and develop technological clusters.

7. Conclusion

7.1 A number of lessons can be learnt from the pôle de compétitivité policy in Lyon:

Involving global companies

7.2 Involving major global companies in large R&D projects together with local partners, public research, universities, and local SMEs is a crucial feature of successful clusters. These competitiveness clusters provide an opportunity to create specific links with major companies, in projects related to their core business which are much stronger than the usual “business clubs” or other informal networks. This generates a range of benefits to partners in the area: enhancing universities, boosting SMEs, creating local jobs, increasing investments and tax revenues.

7.3 The allocation of grants to R&D projects is a powerful incentive for gaining the involvement of large companies. However the largest investments into these joint R&D projects are made by the companies themselves. They are essentially industrial projects which would quickly become too expensive for public expenditure. Overall the benefits gained from the ability to create partnerships between major companies, local universities or SMEs far outweigh the initial financial cost. The most advanced cluster examples, such as Biopôle, suggest that when habits or relationships are created between partners, grants have reduced significance. It should be noted that it is very easy for major companies to find the resources to develop partnerships all over the world. It is the case that in recent years locally based
companies have tended to lose contact with local partners. A key benefit from the cluster policy is that of creating the habit of partnerships and relationships between actors that might not otherwise work together, even though they are located so closely to one another.

**Involving universities**

7.4 The cluster policy has managed, for the first time in Lyon, to engage universities and academic research institutes into local economic networks. In the past they were always relatively reluctant to commit completely into partnerships with private companies, preferring to remain within academic circles. This traditional preference to remain within academic circles is a weakness in terms of the 'triple helix' model of competitiveness, which is at the core of the “pôle de compétitivité” concept – and it is something that is found in most of the French clusters. The success of the Lyon local authorities in involving companies and local researchers has convinced the French government to launch the RTRA (Réseau Thématiques de Recherche Avancés), another incentive, which is a network of academic research and universities. At the local level, universities have been included into “Grand Lyon l’Esprit d’Entreprise”, the partnership that aims to make Lyon one of Europe’s top 15 metropolitan areas, since 2005. All these elements have created the right climate to launch a local university plan, strengthen the links between universities and schools in the city region, and create links between academic research programmes, Lyon’s “pôle de compétitivité” and research networks, and even common university branding. In short the pole has connected the local university – the missing link in the chain – with local networks.

**Attracting talent**

7.5 The Lyon conference underlined the importance of linking clusters with local education for a variety of obvious reasons: e.g. to boost innovation by creating a very attractive pool of talented workers, upgrading local education by creating links with clusters, and attracting persons with high potential. The French “pôle de compétitivité” can contribute both to a local territorial aim and to a more global issue. On the one hand they can help to upgrade local universities and business schools by involving them in the dynamic created by R&D projects between major companies and public research – this enables them to work with up-to-date topics, methods and technologies. On the other hand, these clusters, thanks to the image effect can contribute to place attractiveness for persons with related special talents. Once the city region is identified as one of “the places to be” for a specific theme such as vaccines, it reinforces its attractiveness for value added workers and for high potential students.
So What Have We Learned?

Professor Michael Parkinson CBE, Jay Karecha and Mary Hutchins, European Institute for Urban Affairs, Liverpool John Moores University
1. Introduction

1.1 Previous chapters have provided a wealth of evidence and analysis about the different cities in the COMPETE network. This chapter does not repeat their contents but rather identifies some key messages which have emerged from them. It does three things. First it presents some simple evidence about the comparative performance of UK and continental cities, to provide a context for the discussion. Second it identifies some general policy messages which have emerged across all places. Third it identifies some of the key messages from the individual cities in this report. There are great differences between the cities and countries in this study – historically, institutionally, culturally, socially and economically. Nevertheless, this report has shown that they face some common challenges and that there are some common principles which are transportable, even if they play out in different ways in different places. We can learn from our common experiences and our challenges.

2. How do we compare?

2.1 A general message from the COMPETE project is that there is not a simple position where all continental European cities lead all UK cities. The picture is much more varied. Some European cities in this study are doing well – Munich, Helsinki, Lyon. But some - Dortmund and Rotterdam - are doing less well. Some Core Cities are doing well. And many UK cities have improved their performance in recent years. If we include for example Edinburgh, Glasgow and Cardiff there are even more grounds for optimism. And because London is an exceptional case of global economic success, it is not considered in our report. If London had been in our study the UK picture would look much stronger.

2.2 More generally there is evidence that the UK leads the continent in two policy areas. First it has more experience and success in addressing challenges of social exclusion in deprived neighbourhoods in a comprehensive, integrated way than many European countries and cities. Often they are keen to learn from us in that field. Second some UK cities have had greater success in engaging the private sector in decision making. Some European countries again are interested in learning how we have done this.

2.3 However, there is some evidence that a number of the COMPETE cities do have things to teach us when it comes to improving economic performance. We must recognise some of the Core Cities do lag behind at least the most successful continental cities in terms of GDP, innovation, skill levels, connectivity, and population trends. There are good grounds to explore these differences in performance, the reasons for them and the policy implications. The following selective figures illustrate this point. All measures are tricky and there is scope for disagreement about what they really mean. But whatever limitations of this data, cumulatively they do show that there is a real pattern of differences.

2.4 Figure 1 shows how different cities have been performing on one measure of economic performance GDP in relation to their national position in 2004. Several things emerge. German cities lead the list and clearly outperform their national economy, although Dortmund is just at national level. UK cities perform variously. The non-English cities of Edinburgh, Glasgow and Cardiff are performing well, as are Nottingham, Bristol, Leeds and south Manchester. But there are a number nearer the bottom than the top of the table. Some Core Cities are performing at perhaps 50% of the most successful cities in the COMPETE network. If the figure for Manchester was for the whole of the area, rather than just the more prosperous southern part, it would also be below the national average. Also, all but one of the continental cities are doing better than their national economies.
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While three of the Core Cities perform below the national economy, even though the UK economy is stronger than some other European countries. This last feature of course reflects the significance of the London economy to national performance. Its contribution makes the UK economy perform more strongly than other European countries, which do not have such a significant global city.

2.5 Again, whatever limitations there are to the data on GDP, these constitute significant differences in performance. The leading continental cities seem to be pulling their national economies up. By contrast too many UK cities are performing less well than the national economy and in effect holding it down. If the English provincial cities bore the same relationship to the national economy as the best continental ones, the UK national economy would be far ahead of that of our continental colleagues. So one self-evident policy lesson from the successful European cities is if you make cities more successful - you will improve the national economy as well.

Figure 1 – GDP per capita 2004 (euros) – city and national

Source: Eurostat
2.6 Continental cities are typically more innovative than many of our Core Cities. Figure 2 shows performance on the EU Innovation Scoreboard, which measures public and private investment in R&D, human resources in science and technology, employment in medium-high and high-tech sectors, participation in lifelong learning, and patents. It shows that the regions which do well in terms of GDP also tend to do well in terms of innovation levels. For example, the Munich region, Oberbayern, is the second most innovative region in Europe of those shown below and the Helsinki region, Etela-Suomi, the third. Other COMPETE cities range around that. But the English cities tend to be in regions nearer the bottom than the top of the table.

Figure 2: European Innovation Scoreboard 2006

Source: European Innovation Scoreboard 2006
So What Have We Learned?

**Education**

2.7 Cities with the highest GDP lie within regions with the highest innovation scores. And those performing well in GDP and innovation also perform well in terms of skills and qualifications. Figure 3 shows the percentage of the population in each city-region with university degrees. The Helsinki region is at the top, followed by Stockholm. Munich’s region is second place out of the seven COMPETE regions. Many of the English cities are lower down.

**Growing or declining?**

2.8 Some of these differences are underlined by population trends. People vote with their feet. Many English cities have been losing population in the last decade, particularly at the city level. But the more successful continental cities experience population growth at city as well as city-regional level, as Figure 4 shows.

Figure 3: Percentage of population qualified to degree level, 2005

![Graph showing percentage of population qualified to degree level, 2005.](image)

Source: Eurostat

Figure 4: Percentage population change, cities and city-regions, 1996-2004

![Graph showing percentage population change, cities and city-regions, 1996-2004.](image)

Source: City data & ONS

Birmingham 1 and Nottingham 1 compare the cities with their ‘core’ city-regions.

Birmingham 2 and Nottingham 2 compare the cities with their ‘wide’ city-regions.
The right age mix?

2.9 The population dependency index measures those people who are too young or too old to be in the workforce. Again Helsinki and Munich which are the most successful in terms of GDP, innovation levels and education have the least dependent populations, see Table 1. Many English cities have the wrong mix of population. This tells us something about the boundaries of, as well as long-term social and economic processes occurring, in our cities.

Table 1: Population Dependency Index, 2004

<table>
<thead>
<tr>
<th>City</th>
<th>City PDI</th>
<th>City-region PDI</th>
<th>Region PDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helsinki</td>
<td>0.50</td>
<td>0.52</td>
<td>0.54</td>
</tr>
<tr>
<td>Munich</td>
<td>0.52</td>
<td>0.57</td>
<td>0.62</td>
</tr>
<tr>
<td>Barcelona</td>
<td>0.59</td>
<td>0.55</td>
<td>0.56</td>
</tr>
<tr>
<td>Dortmund</td>
<td>0.59</td>
<td>0.61</td>
<td>0.61</td>
</tr>
<tr>
<td>Bristol</td>
<td>0.60</td>
<td>0.66</td>
<td>0.73</td>
</tr>
<tr>
<td>Rotterdam</td>
<td>0.61</td>
<td>0.61</td>
<td>0.47</td>
</tr>
<tr>
<td>Manchester</td>
<td>0.61</td>
<td>0.68</td>
<td>0.71</td>
</tr>
<tr>
<td>Nottingham core</td>
<td>0.63</td>
<td>0.66</td>
<td>0.69</td>
</tr>
<tr>
<td>Nottingham wide</td>
<td>0.63</td>
<td>0.68</td>
<td>0.69</td>
</tr>
<tr>
<td>Lyon</td>
<td>0.64</td>
<td>0.67</td>
<td>0.71</td>
</tr>
<tr>
<td>Newcastle</td>
<td>0.65</td>
<td>0.69</td>
<td>0.70</td>
</tr>
<tr>
<td>Liverpool</td>
<td>0.66</td>
<td>0.72</td>
<td>0.71</td>
</tr>
<tr>
<td>Leeds</td>
<td>0.67</td>
<td>0.70</td>
<td>0.71</td>
</tr>
<tr>
<td>Sheffield</td>
<td>0.68</td>
<td>0.70</td>
<td>0.71</td>
</tr>
<tr>
<td>Birmingham 1</td>
<td>0.75</td>
<td>0.74</td>
<td>0.72</td>
</tr>
<tr>
<td>Birmingham 2</td>
<td>0.75</td>
<td>0.71</td>
<td>0.72</td>
</tr>
</tbody>
</table>

Source: City Data & ONS

Connectivity

2.10 Connectivity matters as we argued earlier. Figure 5 demonstrates that in terms of air accessibility, with the exception of Manchester, English provincial cities tend to lag behind the more successful European ones. Again the cities that do well in terms of GDP, innovation, skills and qualifications, and population mix tend to be better connected by air.

Figure 5 Airport passengers, 2004
The balance sheet

2.11 There have been significant improvements by many Core Cities in recent years. Some UK cities are doing well. And London is a very successful economic law unto itself. And some continental cities like, Dortmund and Rotterdam, which have experienced economic restructuring still face significant challenges. But these tables suggest there is a significant gap between the best European continental cities and the least well performing English cities which does need to be explained - and then closed.

3. What overall policy messages?

No silver bullet

3.1 Not all the messages from this project are novel or profound. Many of the principles or approaches suggested by the experience of other cities are already being pursued by the government and cities in the UK. Partly the study underlines the wisdom of emerging government policy for cities. But it also encourages government to go further than it has thus far.

National policies are crucial

3.2 The first general point is that national and regional policy matters to the performance of cities. Our study shows that many national governments are targeting, resourcing and empowering cities. The pattern varies by country. France, the Netherlands and Finland have more coherent national strategies for cities. In Spain and Germany, the national government has been less crucial and regional government policies have been more important. But the fact remains that higher level governments in all our study countries have acknowledged the need to focus upon cities - and are backing them. This supports the thrust of UK national and regional policy, which increasingly recognise the potential contribution of our provincial cities, the need to support them and to create the right institutional architecture for them.

The public sector is crucial to success

3.3 A second general message is that public sector investment and involvement has been crucial to the competitiveness of many of the most successful cities. In France the state has decentralised many national institutions from which Lyon, for example, has benefited. It has invested heavily in transport infrastructure. It also undertook the competitiveness poles. In Helsinki, national government policy was crucial to the extraordinary renaissance of Helsinki - going from economic crisis to one of the most successful European cities in the fifteen years between the early 1990s and now. The state government of Bavaria was crucial in making the investment in infrastructure and human capital that has underpinned the phoenix like rise from the ashes of Munich since the Second World War. Governments in the Netherlands have also been investing heavily in the major cities. The private sector is crucial to competitiveness. But the European evidence is that the public sector must provide the basic investment and take the initial risk which the private sector is often reluctant to do.

Economic competitiveness and social cohesion are complementary not contradictory

3.4 A third message is that in all cities and countries there is a concern to balance economic competitiveness with social cohesion – to make sure the benefits of success don’t just go to the already privileged. But a key message is that many leaders in those cities do not see them as mutually exclusive but rather mutually reinforcing, goals. The case of Helsinki is critical. After the collapse of their traditional economy in the early 1990s, national government and city leaders shaped a new strategy based upon high value added information technologies. But a crucial part of that strategy was to continue to invest in their welfare state, in particular education. The welfare state was seen as the first plank of its competitiveness.
strategy. National government did not cut back on investment in education during the economic crisis of the 1990s, regarding it as the potential solution, not the cause, of the crisis.

The balance between national government and cities is crucial

3.5 A fourth general message is that relationships between different levels of government are crucial. The project underlined that although the position varies across countries, there are three notable characteristics. The first is the trend to decentralise powers from national to regional and local government. A second characteristic is to develop contractual rather than target based relationships between national and local government. The third characteristic of many successful cities is that they have greater powers and financial resources than their counterparts in the UK. The UK can learn from these trends.

Leadership matters but not especially elected mayors

3.6 A fifth message is the importance of leadership. The city studies underlined the crucial role that leaders play in encouraging city competitiveness. But that leadership comes in different forms. Often it is individuals as much as it is organisations. Business people, university vice chancellors, and mayors were among those identified as key players. But there was little evidence from the experience of these cities for the view that directly elected mayors are critical to competitiveness.

Attitudes matter more than tools

3.7 There is a wider message about economic success and the institutional roots of it. Successful cities have achieved their success in different ways. There is certainly no single tool kit that explains their performance. The key message is that it is entrepreneurial attitudes, rather than specific tools, that make the difference. Those attitudes are what successful cities have in common.

Long termism is crucial

3.8 The experience of our cities also underlined that economic competitiveness is a long term goal and process. The message from Munich, the most successful of our study cities, is that investment in hard and soft infrastructure, and relationships between institutions and individuals have to be nurtured over the long term and that one should not expect immediate success. The longevity of the relationships in that most successful city was obvious and crucial to its success.

Networks and partnerships – benefits outweigh the costs

3.9 The significance of partnerships or networks was consistently underlined in our projects and in these reports. The experience of Munich underlined the density of those network relationships and also the resources that had to be invested by all partners to make them flourish.

3.10 The experience of Barcelona identified both similar and some different dimensions of partnership working, in a different country across a wider territory. The barriers to partnership in Barcelona were identified as: lack or decline of leadership; choosing the wrong partners or choosing the partner at the wrong level; mistrust between partners; partners losing the motivation to stay in the partnership; conflicts between the public and private sectors; getting the private sector to think beyond strictly private terms; overlapping boundaries between levels of government.

3.11 Incentives to partnership working were for the public sector: ownership and commitment to shared priorities. For private sector partners, they were contacts and privileged information, and a framework to propose partners’ own strategies. For all partners they were: innovation and new ideas; a framework to propose bold strategies; a culture of participation and dialogue; a chance to solve problems in a cooperative atmosphere; increased credibility in their own constituency.
3.12 The key advantages of partnership working in the Barcelona experience were: different visions on key themes; relative independence from political interest; more objective decision making; the risk of later opposition reduced and decision-making more stable.

3.13 But all good things have a price. There are costs to partnership working which have to be recognised and managed. It is time consuming. It requires more coordination. It requires more accountability. The bigger the number of partners the less strategic is the partnership. But partners consistently argued that the benefits of long term partnerships and networking in the long term far outweighed the transaction costs.

**Beyond urban renaissance to urban competitiveness**

3.14 The contrasting strategies of Helsinki and Barcelona in recent years underlined another important point about regeneration and competitiveness. In the 1990s Barcelona's strategy was essentially one of urban regeneration. It focussed upon infrastructure, the physical environment, the city centre, the waterfront, prestige projects like the Olympics, urban tourism. That strategy was enormously successful. However in more recent years Barcelona has recognised the limits of that approach which left it with relatively low GDP; limited working relationships between the city and the universities. It has adopted a different strategy to increase the city's competitiveness, focussing upon the quinary sector, encouraging innovation, attempting to get universities involved in the future of the city. This high value added strategy was the one that Helsinki pursued with a focus upon universities, innovation and networks, and which underpinned its dramatic economic renaissance.

**So What Have We Learned?**

Helsinki which has formed a metropolitan wide agency to deliver innovation, in Lyon which has given responsibility for economic development to the Grand Lyon agency, in Barcelona which is introducing metropolitan wide rather than city wide strategic planning and Munich where the region played a major role in incentivising networks between universities, the private sector and the city of Munich beyond the narrow city boundaries. Again this reinforces the wisdom of the thrust of current UK policy to pursue economic development at sub-regional level, beyond traditional local authority boundaries.

3.15 The experience of many of our cities also underlined the need for cities to work on broader boundaries, which more accurately reflect the real economy of the city region rather than the narrower administrative boundaries of the municipal city. This was clear, for example, in Helsinki which has formed a metropolitan wide agency to deliver innovation, in Lyon which has given responsibility for economic development to the Grand Lyon agency, in Barcelona which is introducing metropolitan wide rather than city wide strategic planning and Munich where the region played a major role in incentivising networks between universities, the private sector and the city of Munich beyond the narrow city boundaries. Again this reinforces the wisdom of the thrust of current UK policy to pursue economic development at sub-regional level, beyond traditional local authority boundaries.

3.16 The experience of the different cities also reinforced the significance of place quality as a feature of economic competitiveness. Munich has many soft locational advantages which help it to attract talent and skilled labour. Lyon has made major successful efforts to dramatise its city centre, in particular building upon its lighting strategy and festival of light to encourage tourism, business investors and employees. From Lyon came the most powerful message of place quality as a means of retaining potentially mobile businesses and employees. This underpinned their cluster strategy, rather than financial incentives to business which were seen as of minor significance.

3.17 A constant thread throughout our project is the economic significance of innovation. However, an equally important message is that innovation is not an arbitrary or random process but one that can be analysed, promoted and learnt. This was a crucial feature of the success of business innovation in Munich. It was a crucial thread in the Helsinki experience. It is a test of all actions in Helsinki - does this policy lead to more innovation. The local authority even runs competitions to reward employees who bring forward the most innovative services or processes within the city council. And the study shows there is no fixed limit to the numbers of cities which can become innovative.

**Talent and place quality not financial incentives**

**Innovation can be routinised**
Universities are crucial to competitiveness

3.18 This also underlined the importance of active university engagement in the economic development of cities. This was most obvious in the case of Munich which has deeply rooted and extensive networks between research, universities and industry in particular with the Max Planck institutes. It was underlined also in Helsinki. The need to bridge the gap between universities and the local economy has also been recognised in Barcelona and Lyon. In Lyon a clear virtue of the national competitiveness pole strategy was precisely to engage universities more extensively and systematically than had been the case in the past.

4. Messages from individual cities

4.1 We do not rehearse the details of the individual city studies in this conclusion. But it is worth underlining some of the striking messages which they provided.

Sheffield – leadership, governance and competitiveness

4.2 Sheffield showed the significance of strategic decision-making in achieving urban regeneration. Their experience underlined the value of a dedicated URC focussing upon a significant, achievable challenge - regenerating the city centre - which changed political attitudes, engaged the private sector and increased confidence inside and outside the city. City leaders acknowledge that Sheffield is at the start of a long journey and the challenge of increasing economic competitiveness remains a long term one. Nevertheless, Sheffield clearly demonstrated what leadership can achieve even in cities which have experienced substantial economic changes.

4.3 The Sheffield study also underlined some broader messages about partnership and governance that cross national boundaries. It showed that successful partnerships require: building confidence in the private and public sectors; an easily understandable vision; strong leadership; access to funding; a dedicated delivery team; a deliverable strategy and Masterplan; a tight programme management regime; the right choice of private sector partners and being prepared to take manageable risks.

4.4 Sheffield has achieved a lot during the past decade. The keys to that success were the following: it set itself challenging, but ultimately achievable goals; stable leadership underpinned its ability to have a strong and distinctive voice in central government; it had an innovative public sector; it stuck to three basic principles - respect and trust, partnership, and devolution.

Dortmund - human resources and competitiveness

4.5 The experience of Dortmund underlined both the importance and the challenge of improving the quality of human capital in restructuring regions. Its key messages were that networking between central and regional agencies is the basic requirement for the development and implementation of successful human resources strategies. Companies are critical agencies for implementing regional human resources strategies. Cities have an important co-ordinating and moderating role. New ideas have to be based on real experience and practice.

4.6 The Dortmund experience underlined that integration will be an increasingly large challenge. A core message was that regional human resources strategies must integrate less educationally qualified groups. Human resources strategies are of central significance for city-region development. Networking and the integration of firms is crucial to competitiveness. It also underlined the significance of comparative learning from other cities.
Helsinki – cultural foundations of innovation and competitiveness

4.7 There has been tremendous interest in the startling economic renaissance of Helsinki during the last decade. The chapter identified some of the key institutional mechanisms. But essentially what emerges from its experience is the cultural base as much as the institutional base of their success. There were some critical institutional features which underpinned the success of the city. They included – a deregulated ICT sector; extensive regional collaboration in a triple helix model; a consistent Government policy focus on competitiveness; extensive regional and municipal collaboration; a successful centre of expertise programme; strong municipal government; extensive investment in business incubators; city university cooperation; a tradition of rapid decision making.

4.8 But the underlying social values of Finnish society were the foundation that makes those initiatives work. They include: the cultural solidarity developing during and after the war; a commitment to internationalisation; equal opportunities for learning; a tradition of social justice and equality; low levels of corruption and extensive honesty and trust; an ethic of hard work; few hierarchies; high levels of informality; commitment to knowledge, education and the welfare state. Values matter as much as instruments.

Barcelona – creativity and competitiveness

4.9 Barcelona underlined the important links between the creative industries and innovation, again defined as a process not a tool. The city used the creative sector to achieve its strategic economic ambitions. The creative sector has been used as a way of, for example: encouraging cooperation between partners in the city; increasing connectivity within partners in the city especially virtual connectivity; encouraging risk sharing between the public and private sectors and the need for greater internationalisation of the Barcelona economy.

4.10 Barcelona also underlined some of the challenges to creative and cultural strategies, which will find echoes in many UK cities. These include: improving the visibility of culture with all partners in the city; closing the gap between cultural creation and its social impact; increasing cooperation between creative companies, universities and public sector; developing better strategies for international exploitation. Barcelona identified a final crucial cultural challenge for the city. Because of its success the city has attracted over a million immigrants in the past decade. It is crucial that those migrants are integrated into a shared civic culture. That cultural challenge is reflected in many European cities. It remains perhaps one of the most important challenges for increased competitiveness.

Lyon - clusters, national strategy and competitiveness

4.11 Several important messages came from Lyon. This chapter has already referred to some of them including: the importance of working at the wider metropolitan level; the significance of national investment programmes and contractual relationships; the role of powerful mayors in giving decisive leadership; the significance of place quality in attracting and retaining skilled workers, investors and clusters. Other factors stand out. The study underlined the importance of the diversity of the Lyon economy, a crucial factor in its success as the second city in France. It showed that the Chamber of Commerce is a powerful and committed body which guarantees that the private sector is more engaged in decision-making than in some UK cities. There was also a powerful message, found also in Helsinki, about the importance of social networks between partners within the city which encouraged trust and facilitated a coherent response to economic change.
4.12 More specifically there were messages about the value of the national government’s strategy of competitiveness poles which is already bearing fruit in encouraging innovative clusters. The messages were only start them where there is already some strength and not in an economic vacuum. Lyon tried to create innovative clusters only where there already existed critical mass; a supportive academic environment; existing networks and international potential. The evidence was the clusters had: stimulated R&D; strengthened the involvement of local firms; focussed public research on the needs of companies; increased local growth by involving local companies; engaged universities fully for the first time; influenced national government policy to encourage greater university engagement and networks. Clusters did work. But they required strong political support, extensive public sector intervention and real partnership working.

Munich – networks, innovation and competitiveness

4.13 Some key general findings are clear from the Munich experience. It is the most economically successful city in the COMPETE network. It has been doing innovation policy longer and more systematically than many other cities. The process involves many regional stakeholders within the city, the state, the universities and the private sector. The partnerships are complex, overlapping and the process is self reinforcing. Innovation is not regarded as a technological innovation. Nor is it a static goal. Instead it is a process to commercially exploit ideas.

4.14 Munich has a powerful culture of consensus between stakeholders and networks. People really trust each other. There is a clear understanding of what matters and agreement there should be no room for free-riders in the innovation process. Also Munich has a vast knowledge base. The universities invested huge resources to improve the quality of research and to develop an entrepreneurial culture. The Chamber of Commerce is very powerful and plays an important role in involving SMEs in the political process and importing innovation into them.

4.15 Also history matters. The Technical University of Munich has a long tradition and has attracted many famous scientists and Nobel Prize winners. The city is the seat of two of the most important German public research institutions, the Fraunhofer Society and the Max Planck Society. And BMW has been in the city since 1916 when it started as an aircraft company. Munich also had the luck that a lot of companies moved there from eastern Germany after the Second World War. But luck has to be shaped and exploited by leaders.

4.16 Munich and the state of Bavaria have established a high quality education system and an infrastructure which supports the development of business and innovative activities. The constant expansion of the universities, the attraction of researchers from abroad and support for the development of a number of growth clusters laid the ground for the success. Munich also underlined the spatial dimension of policy. What matters is not the district level but the wider regional scale. Even city regions are often too small to cope with the problems of connectivity across firms. It also underlined that successful cities do not rest on their laurels. Munich, despite its leading role, always thinks about how to become a better place and looks ahead in a strategic fashion.

4.17 There were some more specific messages from Munich. Indigenous assets must be nourished. They include infrastructure; the quality of life, social cohesion and cooperative networks. They help to attract and retain talent, improve knowledge creation and diffusion, increase the productivity of SMEs and help create start ups. The success of clusters in Munich, as in Lyon, depended upon: the concentration of companies, research institutions and providers in specialist areas; qualified staff; a dynamic tradition of start up; the availability of risk capital; a science friendly environment.
4.18 The more general lessons from Munich were that achieving economic success included: working hard to routinise cooperation; empowering stakeholders and cities; exploiting comparative advantage; improving regional infrastructure and networks. A culture of diversity, flexibility and openness was critical. Knowledge, and therefore networks, were crucial. An enabling - not a hierarchical state - was also vital to its success. But even in one of the most successful urban economies in Europe, the contributions of the federal government and regional government were also crucial.

Rotterdam – beyond connectivity to competitiveness

4.19 Rotterdam underlined the significance of connectivity as a driver of economic competitiveness. But it showed that investment in physical infrastructure by itself was not enough to achieve a more internationally competitive economy. It was vital to recognise the increasingly dominant network character of the global economy for individual businesses. Rotterdam has a good international position because of its good infrastructure, efficient logistical hubs and a well developed international network. But its greatest challenge is not just ensuring a hub with a low added value logistical economy, but in maintaining and attracting companies which offer high added value. The danger of a ‘back wash’ effect - businesses and people leaving the region - because of good connectivity is paradoxically very threatening. In this context a network analysis of businesses is a good tool for tackling these challenges. Cities are connected with each other through city-firm networks. By collaborating or competing with the right region, a city can strengthen its position in the world network and therefore increase its level of competitiveness.

4.20 There were three keys to success in Rotterdam’s experience. First, city positioning. It was important to position a city region in a wider network and to determine its strengths in the light of networks, clusters and business chains. Second it was crucial to maximise existing policy tools. Cities have a wide spectrum of instruments like real estate, land management, economic policy, cultural policy, marketing and access to networks of governmental, educational or commercial organisations. They must be used in a coherent way to maximise success. The third key to success was delivery. This involved: speeding up development; using financial options creatively; using all organisational options like alliance management; creating the right management to ensure that quality of new customers relations is done well.

5. Endpoint

5.1 This report has presented some of the key ambitions, achievements and messages of the COMPETE network. But it is not a complete account of all the network did. More evidence of that can be found on its website. And it is important to restate a crucial point about COMPETE. The evidence and argument it generated mattered. But as important - if not more - were the relationships built up between policy makers in European cities, the informal learning that occurred, the reinforcement of the ways in which challenges were defined and tackled. That cultural and informal learning was crucial and more important than this single report. Running cities in Europe is rewarding but hugely challenging. Many partners involved in running them have contributed to and benefited from the COMPETE network. It has encouraged them to continue their efforts, as well as sometimes to change their views and approaches. That is the real value of the COMPETE network and the support it received from the contribution of the UK government and the European Commission. And that will live on.