

Finland and the Helsinki metropolitan region
Pathways to creative and knowledge-based cities

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Pathways to creative and knowledge-based cities

ACRE report

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Mari Vaattovaara



Accommodating Creative Knowledge – Competitiveness of European Metropolitan
Regions within the Enlarged Union

Amsterdam 2007
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ACRE

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EXECUTIVE SUMMARY

This report presents selected indicators of Finnish creative industries providing an insight to the development path to the current condition of the Helsinki metropolitan area. In order to take up the task, there are several aspects that have to be considered: the overall urban structure and hierarchy of Finland, the development of the economy after the recession of the early 1990s, the development of education as the precondition for knowledge creation and the actions of various public sector actors aiming to promote the local and regional growth.

The development path of Helsinki and its surrounding area towards the current status of middle sized European metropolitan area begun from the change of capital rights in 1812. The capital status generated a platform for the growth in population and business. Concurrent important factor has been the existence and creation of the oldest and the most important educational units in the country. These include the long histories of the University of Helsinki, Helsinki University of Technology and University of Art and Design. The third essential meta-category from history is the development of social security and institutions for the basis of “welfare” society. Helsinki has traditionally been the administrative centre of Finland and the emergence of these institutions has supported the importance of capital area. We might say that Helsinki has been the “natural” leader of Finnish urban hierarchy and it, along with the other cities of the metropolitan area, has developed as the only international sized concentration of business and inhabitants in Finland.

Due to the capital status, size and economic wealth, Helsinki metropolitan area has developed as the centre of cultural attractions and cultural life in Finland. However, the competition on the field in culture is harder with the old capital Turku than on other fields, due to Turku’s old cultural heritage. Helsinki metropolitan area provides a feasible platform to study issues related to creativity, culture and arts.

Innovation creation and innovative business development has been recognised as an essential tool to foster national growth. Finland has a sophisticated innovation system, which building process started as early as 1980s. It includes various actors from public and private sectors. In addition several mediating organisations and co-operation systems have been developed during the last 10-years. Finland has had good rankings in practically all measurements dealing with innovation and knowledge based economy. The global pressure, however, forces national systems under a constant change.

The empirical data gathered for this report shows that there is a great diversity among the creative and knowledge intensive industries. Several of the included industries employed less than 500 persons. However, there are three to four industrial segments that employ the largest amounts of people. These include fields of ICT, publishing and advertising. The main point is that the studied creative industries are, to a large extent, relatively small employers.

Finally, there are public policies and development agendas that aim to support the development preconditions of Helsinki metropolitan area. The most important actions are either included into the innovation system processes (e.g. TEKES policies, funding and guidelines) or Helsinki metropolitan area programme. Helsinki Metropolitan Advisory Board has also created a vision regarding the development of the capital area that is supported by the innovation strategy of Culminatum. The policies highlight the growing importance of multiscaled co-operation between actors on different spatial levels. National, regional and local forms of co-operation are clear examples of this.

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1 National background

1.1 Finland in brief

Finland has been an Independent Republic since December 6th 1917. Before that date Finland was a Grand Duchy of the Russian Empire 1809–1917 and a part of Swedish kingdom from 12th century onwards. Finland is one of the Nordic Countries located next to Sweden and Russia. Finland has also a physical boarder with Norway. Finland is the seventh largest country in Europe after Russia, Ukraine, France, Spain, Sweden and Germany with the total area of 338 144 km².

The Finnish constitution follows the western democracy model and a President is elected for 6-year term (for a maximum of two terms). There is also a single chambered 200-member parliament that is elected every four years. The elections are direct and on they are conducted on the basis of proportional representation. At the last election (2007), 84 women were elected as MPs.

Finland's currency is Euro that became the official currency in 2002. Finland's economy has traditionally been based on its most plentiful natural resource: wood. The forest product industries are still important, even if they face increased international competition, but manufacturing industries, engineering and high technology have also played a big economic role in recent decades. The main economic phenomenon of the last two decades has been the rise of telecommunications giant Nokia and the industrial cluster surrounding the IT business.

Finland is one of the Nordic welfare states with relatively extensive public sector and progressive taxation. Welfare services include healthcare, education and social services. The Finnish literacy rates are among the highest in the world. The OECD Programme for International Student Assessment (PISA), which evaluates the educational achievement of children of school age in the OECD countries, placed Finland among the top countries in 2001. The system begins with pre-school teaching leading to entry to comprehensive school at age seven. This continues through to the ninth grade, after which students can decide to pursue vocational education or secondary education. Upper secondary schools take the students through to the age of 18 or 19, when they matriculate and can then choose to enter higher education provided by universities or polytechnics.

The population of Finland is approximately 5.2 million that equals 17 inhabitants per square kilometre. 67 % of the population live in towns or urban areas and 33% in rural areas. The number of rural inhabitants is one of the highest in Western Europe. Principal cities are the capital Helsinki (560,000), Espoo (221,000), Tampere (199,000), Vantaa (182,000), Turku (174,000) and Oulu (124,000). Approximately a total of 1.2 million people live in the Helsinki metropolitan area (figure 1.1).

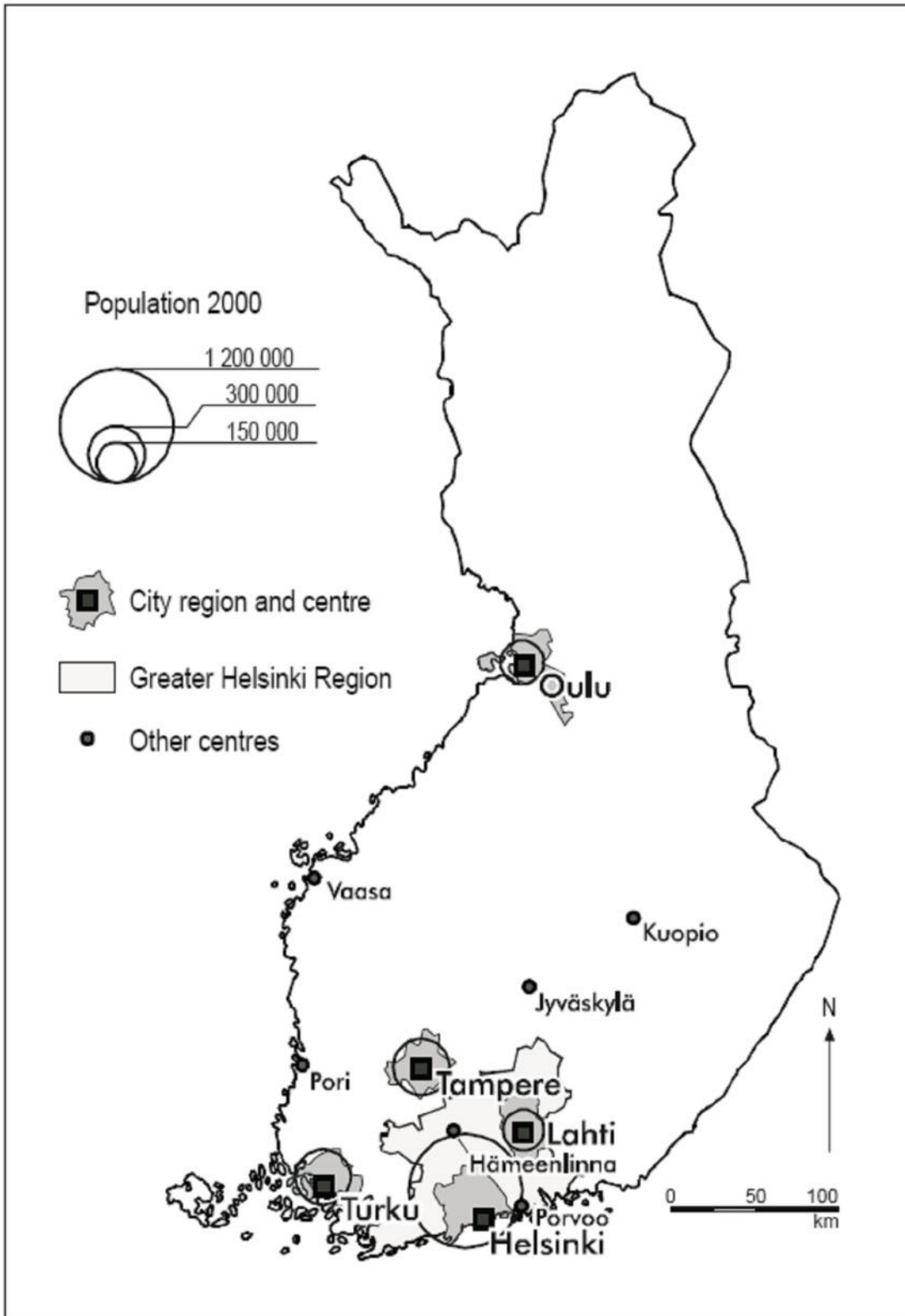


Figure 1.1. Finnish functional urban areas (FUA) with a population exceeding 150 000. Source: OECD 2003: 46; City of Helsinki, Urban Facts

Figure 1.1 shows the population has concentrated to the south parts of the country. Finland is also sparsely populated country and the population density is 16 persons per square kilometre. The Helsinki region has approximately 22 percentages of the whole population. Figure 1.1 also demonstrates the long distances in Finland. They have effects on regional planning on all levels of jurisdiction.

Additionally, figure 1.1 shows that the most populated area is concentrated to Helsinki region (Uusimaa) and to closely located functional urban areas of Tampere and Lahti. The other main economic concentrations of Finland include Turku region (South-West Finland) and Oulu region of the north. This spatial concentration of population has also implications to the development path of Helsinki.

1.2 Remarks on the economic development in Finland 1985–2005

There are three essential characteristics in the development path of the Finnish economy during the 20-year period (see figure 1.2). They are 1) the economic crisis of the early 1990, 2) the steady growth after that crisis and 3) quick transformation to information and knowledge based economy.

The transition to knowledge economy has been fast considering Finland's economic situation in the early 1990s. The country went through a severe economic crisis and recession. It was characterized by a severe banking crisis and simultaneous rise of unemployment. Unemployment ratings reached a level of over 15 percent. The accumulation of government debt grew also from modest levels to over 60 percent of GDP. However, Finland recovered from these crises well. At the end of the decade the country's macroeconomic performance was among the strongest in Europe and the fast structural change coincided with fast improving of macro balances (Yli-Anttila 2006).

The Finnish experience shows that it is possible to make significant structural changes in a short time. Discussing this in more general framework it means that it is not necessarily the lack of technological infrastructure or innovations that restrains economic growth. Other challenges include the lack of educated labour force, entrepreneurs, proper economic incentives and opportunities. Changes are also needed in the deficiencies in public policies. Economic research (e.g. Koski et al. 2002; Rantala 2006) has shown that especially education is strongly complementary to technological advancement. It is not possible to introduce new technologies without investing sufficiently in education at the same time.

Vaattovaara & Kortteinen (2003) stress the importance of Finnish welfare state system in the recovery process after the recession. They draw on the work of Castells & Himanen (2002) to emphasise the connection between ICT driven economy and maintaining the structures of extensive public sector welfare state services. They (2003: 2130) evaluate that Helsinki region is "a kind of laboratory" of the future development in Finland. This is also related to the economic importance of Helsinki region in Finland.

Knowledge intensive growth and development is a tool to provide new opportunities for economies in different types of conditions. Essentially, information and communication technologies (ICTs) have provided new efficiency tools for developing countries to enhance, or even jump over, certain phases of economic development. Adoption of ICT can also enhance integration into the global economy when it at the same time lowers the borders of national economies. On the other hand, and in the case of developed countries, knowledge-

based economy provides new opportunities for further specialization, improving productivity and achieving sustainable growth.

Yli-Anttila (2006) considers that knowledge capital is the only asset that can grow without limits. Sharing knowledge with other person does not diminish the knowledge of the original owner. Knowledge is also a good that can be used at simultaneously in different locations. It can be said that all countries are dependent on global knowledge diffusion. This means the dependency on knowledge that is produced outside own national economy. This is the basic economic motivation for more intense international communication and collaboration.

The main fields of Finnish industry have traditionally been metal engineering and forest products. Since the 1980s the role of information and communications technologies has increased. Inventions and product development work have spawned several products that can be described as “innovative”. Important fields of industries include production of ICTs, ship building (icebreakers and cruisers), construction of lifts, paper machines and environment-friendly paper manufacturing processes. In addition, Finnish companies have reached international markets with products including diesel engines, sailing yachts, compasses, fishing lures, frequency transformers, rock drills, tree harvesters, contraceptives, pipettes, and scissors and axes, together with Internet encryption systems and numerous other products of forestry, engineering, and information and communications technology.

Finland has been successful in several international rankings (e.g. WEF 2007) and Finland has been ranked top in comparisons that measure competitiveness and knowledge economy developments. These include World Bank Knowledge Economy Index, and OECD’s Student Assessment tests (PISA study). In 2003, the private and public sectors in Finland invested around five billion euros in research and product development, equivalent to approximately 3.5 per cent of the GDP. Relatively, it is at the top level in the world. (e.g. Inkinen 2005a). Finland has also been successful with some key-individuals who have gained “guru” positions. A good example of this is the Linux operating system developed by Linus Torvalds.

The figure 1.2 shows the strong growth in Finnish economy since the depression of the early 1990s. In addition, the figure also shows that the value adding to the GDP is due more because of the industrial success rather than service sector. A great deal of industrial growth is due to global companies such as Nokia, Kone and UPM (Sipilä 2006).

Finnish economic growth has been at a faster pace than most OECD countries. In investments, however, the record level of the period before the 1990s recession has not been reached even the growth has been strong. GDP is forecasted to grow 1.5 per cent for 2007 that is lower than previous years. The unemployment rate is relatively high 7.5% (February 2007), and it is estimated to stay over 7% during the whole 2007. Inflation rate is currently 2.2%. Inflation rate has remained below the OECD average. Corporate investment as a proportion of total national R&D expenditure increased from 57 per cent in 1991 to 70 per cent in 2005. The electronics and ICT industries were the main drivers behind this growth.

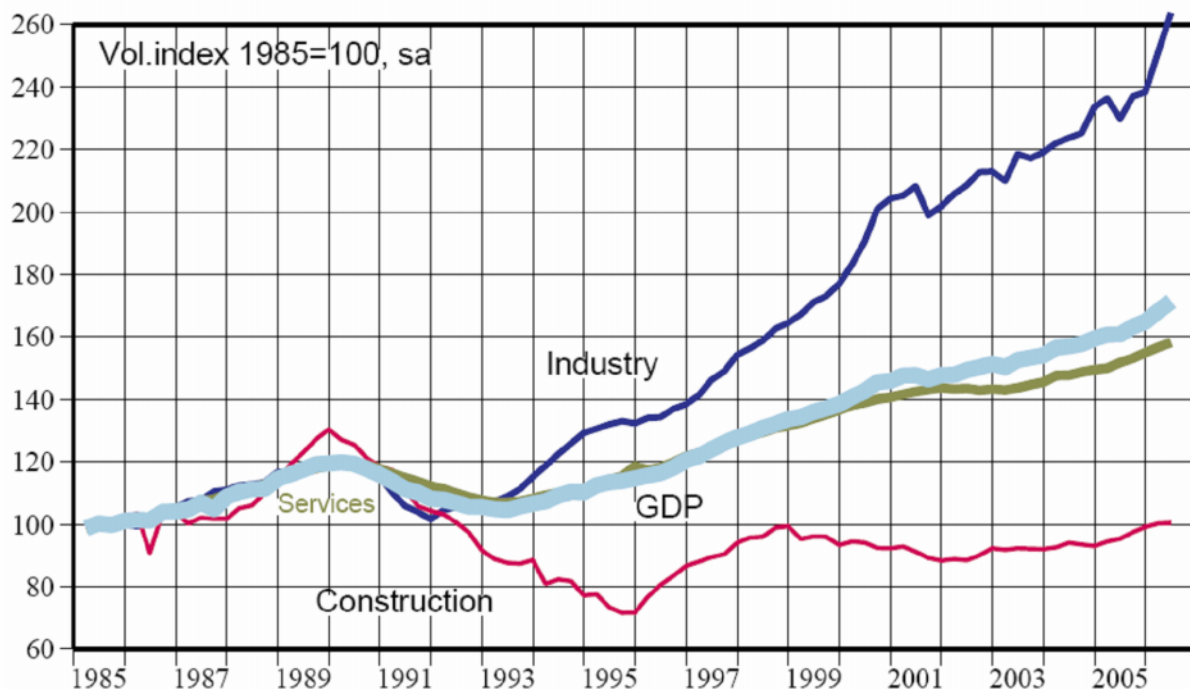


Figure 1.2. Total output of Finnish economy 1985–2005 by main economic branches. Source: Statistics Finland 2006; Confederation of Finnish Industries 2006

The value adding to GDP is not telling much about the levels of employment. Work done by Ilmakunnas et al (2000) demonstrates the imbalance between employment growth and value-adding growth. Looking at the employment figures of identified three sectors (primary, industry and services) the contrast to results obtained in the figure 1.2 is evident. Table 1.1 shows the employment development with estimates till the year 2030.

Table 1.1. The development of employment in Finland 1971 to 2030 in primary production, industry and services. Source: Ilmakunnas et al. 2000: 20

Employment per 100			
Year	Primary	Industry	Services
1971	21,2	35,2	43,6
1980	13,5	34,6	51,8
1990	8,4	31	60,1
1997	7	27,5	65,5
2010	5,5	25,5	69
2020	4	23	73
2030	3	20	77

Economy exists always in national framework that is directed by laws and legal system. Therefore, we will briefly discuss the condition of the Finnish legal system, because it is an important factor in the analysis of the functionality of national economy. Observed level of

corruption within a public administration has direct implications to the economic conditions in a nation state in question. Finland is one the least corrupted countries in the world (e.g. transparency international index) and it has well functioning legal system. These attributes have had an impact in the recovery process of the 1990s recession. An international benchmark study has been made by Gwartney and Lawson (2006). They have analysed the significance and importance of properly working legal system and the relation to GDP growth. Table 1.2 shows the top 24 nations.

Table 1.2. Legal systems, income, and growth in selected countries. Source: Gwartney and Lawson 2006

Countries with Average Legal Rating >7.0 during 1980–2000	Legal System Rating	Per Capita GDP 2000	Growth of per Capita GDP, 1980–2000, %
Switzerland	8.65	\$27,780	0.82
United States	8.61	\$33,960	2.12
Netherlands	8.58	\$26,910	1.98
New Zealand	8.51	\$17,840	1.29
Austria	8.49	\$26,420	1.99
Luxembourg	8.45	\$53,410	4.26
Denmark	8.41	\$28,680	1.74
Finland	8.36	\$24,160	2.27
Germany	8.36	\$25,100	1.70
Canada	8.32	\$26,840	1.69
Norway	8.31	\$29,200	2.42
Australia	8.29	\$24,550	1.96
Iceland	8.08	\$28,910	1.67
Sweden	8.05	\$23,650	1.66
Belgium	7.97	\$25,220	1.91
United Kingdom	7.91	\$23,580	2.29
Ireland	7.91	\$30,380	4.91
Singapore	7.89	\$23,700	4.92
Japan	7.84	\$25,280	2.34
Portugal	7.50	\$17,710	2.91
France	7.48	\$23,490	1.72
Hungary	7.16	\$11,960	1.31
Hong Kong	7.16	\$25,180	4.07
Taiwan	7.03	\$13,279	6.00
Average	8.05	\$25,716	2.50

Figures show that Finland is at the 8th position classified by the legal system ranking. The table also shows that the average growth of Finnish economy has been slightly higher than in other Nordic countries, such as Denmark, Sweden and Iceland. Norway instead has experienced a slightly higher average growth rate. It is also worthy to remember that the Finnish economy has experienced strong growth after the year 2000 from which the GDP figures are from (ref. figure 1.2).

1.3 An overview of population development

The changes in the Finnish demographic structure are small. Finnish population follows the similar path as other industrialised European countries with ageing population structure. However, the Finnish population has slowly increased from the 4 972 223 (1990) to 5 141 728 (2005).

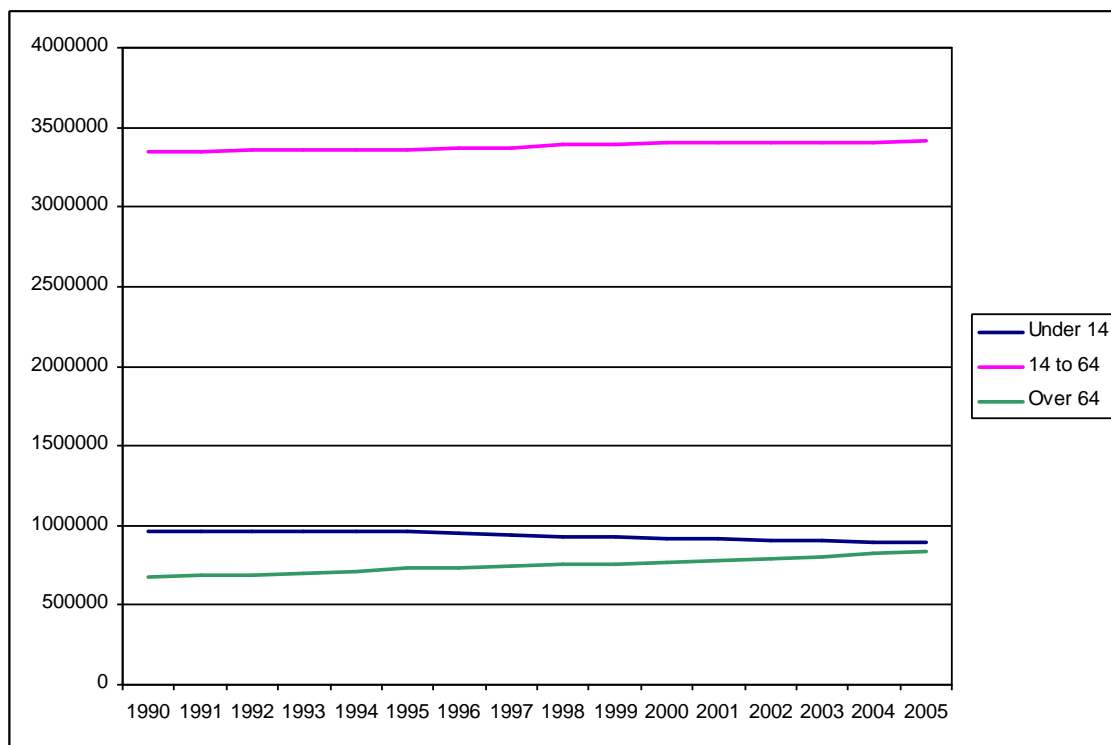


Figure 1.3. Population according to age groups in Finland 1990–2005. Source: Statistics Finland 2006

Perhaps, the most challenging development of the Finnish economy and society is the ageing of population. The Finnish population is getting older because of the shrinking sizes of young age cohorts. Age division in figure 1.3 shows the increasing of the oldest group. However, the shrinking of the youngest group is relatively small. Migration keeps the working age group (15 to 64 year olds) on the path of small growth. This is a common problem in several industrialised European countries.

It is estimated (Lassila & Valkonen 1999) that the relative amount of the number of persons over 60-years of age compared to the amount of 20 to 59 years of age will increase 300% in Finland by the year 2015. This challenge has severe implications for pension systems and labour market challenges. Essential characteristic of socio-demographic structuring is the age division.

1.4 Regional and urban policies

Introduction

Finland is divided into 19 regions, plus the autonomous province of Åland, and into 85 sub-regions. They are composed of local authorities that are responsible for executing the task given to municipalities by the national government. Regional development processes require co-operation between local authorities (municipalities, NUTS5), sub-regions (NUTS4), and regions (NUTS3). These goals are lined with general EU regional development agendas. Regional development actions also support cross-border regional co-operation by launching community initiative programmes. Besides the development of some of the biggest growth centres, Finland's own regional policy emphasises the creation of a network regional centres that are considered as regional growth nodes. These include the largest Finnish cities.

The Finnish regional councils, composed of municipalities, function as regional development authorities that are responsible for planning programmes in their region jointly with other actors. Regional councils are in charge of general regional planning. They have to prepare and monitor the implementation of regional development plans. This also includes the co-ordination of development measures in their region. Regional councils are also taking care of the regional plans.

Finnish municipalities have self-government right. This means that they collect taxes in order to finance their service production that is defined in the law. In 2003 the national average for income tax was little over 18% and some 53% of municipal income is taxation based (Karvinen 2005: 2). Municipalities have an extensive responsibility for welfare service production. They must provide e.g. education (comprehensive school and upper secondary school), healthcare and social services for local citizens. The tax collection right also means that some regions become wealthier than the others depending on their tax-payer and consumer potential.

Sub-regional co-operation is becoming more common and the forms of co-operation are becoming more diverse. It can involve land use planning, economic development policy, transport and communications systems, environmental care, and other service sectors. To promote sub-regional co-operation, the Ministry of the Interior and the Association of Finnish Local and Regional Authorities launched in 2000 a voluntary sub-regional co-operative project.

The overall aim of local authorities' economic development and employment policies is to give more strength to the region's competitiveness (e.g. Inkinen & Jauhiainen 2006). Economic development policy covers a variety of issues related to supporting business and industry, ranging from the development of city centers to the building of technology programs. Evidently, an active development policy involves the development of public services. This can be achieved through private service provision, or co-operation with businesses aimed at improving local skills and competencies.

The management of economic development policy is increasingly spread out across the entire municipal hierarchy. Local authorities have entrusted the management of EU grants to public authorities responsible for rural economic development. Several municipalities are also involved in business mentor projects that are aimed at reinforcing local business operations.

A discussion of the key national government urban policies and tools

The government driven urban development policy in Finland is designed in accordance with the Government Programme. The co-ordination responsibility is on the Ministry of the Interior. The profile of Finnish national government urban policy could be described as “opportunity-oriented”, focusing on science and innovations in cities as the competitiveness engines (see Antikainen & Vartiainen 2006). This is due to the fact that the largest urban regions have driven the national economy for the past decade. Several international indicators show the Helsinki capital region to be one of Europe’s most dynamic city regions.

If we consider the development paths, there are few historically traditional towns in Finland. Helsinki is one of them. However, the fast structural changes in the national economy has caused that the agrarian tradition still exercises a strong impact on the rather thin urban culture. Even as late as in the beginning of the 1960s almost a third of the population earned its livelihood from agriculture and forestry. The faster shift from agriculture to urban service industry started to occur in the 1960s. After the late start the pace has been the fastest of all Europe. The fast migration to the cities required rapid construction activities. Housing estates were intended to combine the benefits of both rural and urban areas, but the results were not always successful. Cities also experienced a scattered structure.

Finland has been described as a Nordic welfare state in which the proportion of public sector in economic activity is relatively high. The building process of the welfare state was characterised by an effective transfer of resources from urban regions to previously populous peripheral areas. These transfers were used to produce welfare services, to build and maintain the infrastructure and to attract investment. Since the urban areas account for about four-fifths of the total production in the national economy, the competitiveness and expertise exhibited by the urban enterprises can be considered the backbone of the entire economy (also Vaattovaara & Kortteinen 2003).

Government driven urban policy in Finland is based on a polycentric approach and a network of vital cities and towns. In current regional policy the two main tools can be identified: 1) the Regional Centre Programme (RCP) and 2) Centre of Expertise Programme (CoE). They both are programmes in accordance with the Regional Development Act. The Centre of Expertise Programme and the Regional Centre Programme serve as the basis for a policy mix for large urban regions.

In general, the significance of large urban regions to the country’s success, prosperity and national economy is growing, because their importance in knowledge and innovation creation. These regions thus create expertise through which innovations are conceived. Large urban regions compete in the global market for businesses and activities that could be located in Finland. The special role of regions is taken into account when outlining regional development measures so as to enable them to perform within the international competition. Development policy is diversified according to the strengths of different urban regions.

The Regional Centre Programme:

The aim of the regional centre programme is to develop a network of regional centres covering every region, based on the particular strengths, expertise and specialisations of urban regions of various sizes. Regional development founded on a network of regional centres results in a more balanced regional structure and enhanced international competitiveness. The main RCP target at the regional level is to strengthen sub-regional co-operation as well as to promote business development.

The RCP has a new programme period for the years 2007 to 2010. The programme initially started at 2001 as a reformed tool to enhance regional development. The new and current programme period aims to support the regional specialisation. This includes the strengthening of regional knowledge base. Essentially, the regional “attractiveness” is taken into a consideration. This attractiveness has been identified in economic terms. Thus, the development derives from the business activities that can be gained by providing an attractive operating environment. Helsinki metropolitan area and surrounding Uusimaa region are not included in RCP.

Centre of Expertise Programme

The other key policy instrument to drive regional policy is the Centre of Expertise Programme (CoE). It has an important role in a national growth strategy based on information and expertise. The programme is designed to pool local, regional and national resources for the utilisation of top-level expertise. The programme supports regional strengths and specialisation and furthers cooperation between the centres of expertise.

The regional development policy has actually been intertwined to technology and innovation policies in Finland. The CoE was initially started in 1994 (Jauhiainen 2006: 53). In the year 2006 there were a total of 22 centres of expertise out of which 19 were local centres and 3 national network centres. A total of 45 areas of expertise were included to the programme (Pikkujämsä et al. 2005). The CoE programme continues during the years 2007–2013 (table 1.3).

Table 1.3 includes the list of the new projects (or clusters) that were selected as members of the CoE network. The selection of the new centres for the current period is also connected to overall development of the Finnish national innovation system. Table shows the main strands that are supported by the national decision making concerning innovation, growth and competitiveness. It also indicates the main industries and areas of interest that are important for the developers. The major research areas include biotechnology, machinery, ICT and maritime logistics. On the other hand, “softer” components on the programme can be found dealing with tourism, well-being and living. Thus, the total number of current CoE clusters is 13. Compared to the earlier period, the number of projects underneath the network is cut down and the focus will be on the internationally most competitive branches, because the level of internationalisation varied considerably among CoEs in the programming period 2002–2006.

Table 1.3. The current clusters in the centre of expertise programme 2007–2013. Source: Centre of expertise programme 2007

HealthBio – Health cluster: Kuopio, Oulu, Helsinki Metropolitan Area, Tampere, Turku
Well-being cluster: Kuopio, Oulu, Helsinki Metropolitan Area, Tampere
Food Processing Development cluster: Kuopio, Helsinki Metropolitan Area, Seinäjoki, Turku
Future Energy Technologies: Joensuu, Jyväskylä, Vaasa, Pori and Tampere
Ubiquitous Computing: Jyväskylä, Oulu, Pori, Helsinki Metropolitan Area, Tampere
Digital Content Business: Hämeenlinna, Helsinki Metropolitan Area, Tampere, Kouvola
Tourism and Experience Industry: Helsinki Metropolitan Area, Rovaniemi, Savonlinna, Turku
Maritime cluster: Lappeenranta, Pori, Turku, Vaasa, Raahе
Nano and Micro Systems and Adaptive Materials: Joensuu, Jyväskylä, Kokkola, Mikkeli, Oulu, Helsinki Metropolitan Area, Tampere
Intelligent Machines: Hyvinkää, Hämeenlinna, Lappeenranta, Seinäjoki, Tampere
Forest Industry Future: Joensuu, Jyväskylä, Kajaani, Kokkola, Mikkeli, Lappeenranta (Kaakkois-Suomi), Turku
Living cluster: Joensuu, Hämeenlinna, Lahti, Helsinki Metropolitan Area
Environmental Technology cluster: Kuopio, Lahti, Oulu, Helsinki Metropolitan Area

Absence and emergence of regional tools for urban policy and city co-operation

Kähkönen (2006) writes that in 2005 the issue of urban policy was very much an “open question” even though the urban development was stated in the Government Programme 2003. The long tradition of balancing regional policy has caused that, regardless of CoE programme, there are no policies that would support strong urban regions. Therefore, there has not been an “official” urban policy that would clearly state the support actions for growth areas. In practice, the urban policy is based on co-operation between the six largest cities (Helsinki, Espoo, Vantaa, Tampere, Turku and Oulu) that together started so-called six-pack co-operation in 2002.

Kähkönen (2005: 8) writes that there are three major collaborative organs in the Helsinki metropolitan area. One of them is driven by the ministry of interior as a part of broader regional policy guidance, the second one is based on the co-operation between the

four cities of the metropolitan area and the third one is the co-operation agreement among the 14 municipalities of Helsinki region.

The recognition of the need for urban policy starts also to have visible results at least to some extent. For example, the capital area has a specific urban programme that implements joint development projects in the region and develops cooperation procedures amongst its cities and towns. The initial Urban Programme was executed 2002–2004 with an aim to strengthen the knowledge intensiveness, competitiveness and citizen participation. The programme was started by an agreement by the Mayors of the four cities forming the metropolitan area. The total project budget for 20 initiatives was 2.1 million euros (in detail see chapter 6; Karvinen 2005).

In general, current urban development actions and programmes have started to recognise the fact that Helsinki is Finland's only metropolitan region, and its competitiveness and balanced development are vital to the entire country. This applies both in economic and social sense. Segregation of urban space is one example of this. Even if segregation in Helsinki metropolitan area has not reached the scale found in international metropolises, there are signs showing that urban segregation is intensifying (e.g. Vaattovaara & Kortteinen 2003). Coordinative and collaborative work over organisational borders is needed to support steady and balanced growth both socially and economically.

1.5 Knowledge economy policies

There is no explicit “knowledge economy policy” document in Finland. Relevant themes are present in the following policy areas: science policy, technology policy, information society policy and innovation policy. In the following short reflective comments on these areas are presented.

Finnish science policy

Finnish science policy is managed by the ministry of education. The general aim of the policy is to strengthen and broaden the quality of the Finnish research and education. The policy aims to ensure positive connections between science and society. The importance of research and its social implications are also highlighted. The key aim and priority in Finnish science policy is to have an effect and a substantial increase in research funding and maintain the GDP share of R&D at a world top level. The additional funding will be allocated to strengthen basic research, researcher training and research infrastructure and to promote research careers.

An essential part of the Finnish science policy is the aim to support research especially in fields relevant to knowledge-intensive industries and services, such as biotechnology. Knowledge intensiveness is one of the key dimensions in ACRE project and therefore the Finnish national science policy clearly supports the issues studied in our project. This fact demonstrates the clear need for national and European level information needs of the public sector. In addition, the Finnish science policy highlights the need for intensifying cooperation between the information users and research findings should be supported. This requires more efficient tools for knowledge dissemination of research findings. This point has been taken into an account in the ACRE project in the form of local partnerships. The dissemination of research results is also connected to the utilisation and commercialisation of research.

Considering the practical implementation of the research policy there are two major organisational groups: the funding organisations and the research institutions. The most important research financing organisation is the Academy of Finland. Publicly funded research is mainly conducted in universities and specialised research institutes. According to the global ranking list of universities (by the University of Shanghai), the University of Helsinki is currently the most qualified university in Finland. The latest position of the University of Helsinki in the year 2005 global ranking is 76 worldwide and 23 in Europe. In table 1.4 the top European institutions present in the global top 100 list are presented.

Table 1.4. The University of Helsinki among the top-European universities in 2005. Source: Institute of Higher Education, Shanghai Jiao Tong University

World Rank	Institution*	Region	European Rank	Country	National Rank	Total Score
2	<u>Univ Cambridge</u>	Europe	1	UK	1	73,6
10	<u>Univ Oxford</u>	Europe	2	UK	2	59,7
23	<u>Imperial Coll London</u>	Europe	3	UK	3	43,7
26	<u>Univ Coll London</u>	Europe	4	UK	4	42,6
27	<u>Swiss Fed Inst Tech - Zurich</u>	Europe	5	Switzerland	1	41,7
41	<u>Univ Utrecht</u>	Europe	6	Netherlands	1	32,9
45	<u>Karolinska Inst Stockholm</u>	Europe	7	Sweden	1	32,1
46	<u>Univ Paris 06</u>	Europe	8	France	1	32
47	<u>Univ Edinburgh</u>	Europe	9	UK	5	31,8
51	<u>Univ Munich</u>	Europe	10	Germany	1	31,4
52	<u>Tech Univ Munich</u>	Europe	11	Germany	2	31,3
53	<u>Univ Manchester</u>	Europe	12	UK	6	31,2
57	<u>Univ Copenhagen</u>	Europe	13	Denmark	1	30
57	<u>Univ Zurich</u>	Europe	13	Switzerland	2	30
60	<u>Uppsala Univ</u>	Europe	15	Sweden	2	29,9
61	<u>Univ Paris 11</u>	Europe	16	France	2	29,4
64	<u>Univ Bristol</u>	Europe	17	UK	7	28,8
65	<u>Univ Sheffield</u>	Europe	18	UK	8	28,6
67	<u>Moscow State Univ</u>	Europe	19	Russia	1	28,4
69	<u>Univ Oslo</u>	Europe	20	Norway	1	28,3
71	<u>Univ Heidelberg</u>	Europe	21	Germany	3	28
72	<u>Univ Leiden</u>	Europe	22	Netherlands	2	27,9
76	<u>Univ Helsinki</u>	Europe	23	Finland	1	27,4
80	<u>King's Coll London</u>	Europe	24	UK	9	26,1
83	<u>Univ Nottingham</u>	Europe	25	UK	10	25,9
84	<u>Univ Goettingen</u>	Europe	26	Germany	4	25,8
85	<u>Univ Vienna</u>	Europe	27	Austria	1	25,6
87	<u>Univ Basel</u>	Europe	28	Switzerland	3	25,2
90	<u>Univ Freiburg</u>	Europe	29	Germany	5	24,9
92	<u>Univ Strasbourg 1</u>	Europe	30	France	3	24,7
93	<u>Ecole Normale Super Paris</u>	Europe	31	France	4	24,6
93	<u>Stockholm Univ</u>	Europe	31	Sweden	3	24,6
97	<u>Univ Roma - La Sapienza</u>	Europe	33	Italy	1	24,5
98	<u>Univ Birmingham</u>	Europe	34	UK	11	24,4
99	<u>Lund Univ</u>	Europe	35	Sweden	4	24,3

Presented table 1.4 should be interpreted with keeping in mind that the Finnish science policy has to seek balance between one internationally competitive university (Helsinki) and 20 regional universities located across the country. The task is not easy. However, on the

European level, University of Helsinki is relatively well positioned considering the small number of Finnish population. The development of university sector is one of the most current topics in political and public debates.

The national science policy aims to increase co-operation between all spatial scales. This includes actions on regional, national, European Union and global scales. An important emphasis has been given to the European Union research programmes. The research conducted in ACRE is one example of the goals that science policy supports. Also other important international networks are identified. These include scholarly exchange programmes initiated by the Academy of Finland in 2007 and other international arrangements such as Fulbright scholarly programme.

Finnish technology policy

Finnish technology policy is designed to strengthen the competitiveness of technology-based enterprises. Technological progress is used to create new business opportunities and promote the growth of existing businesses. Technology policy is a central component in industrial policy. There are several aims to which technology policy seeks to give answers and tools. One of the most important ones is the need to develop the national innovation system. This system should generate new knowledge and promoting knowledge-based production and services. The Finnish Technology Agency TEKES is the most important instrument in the financing of the national innovation system. A key concept in the technology policy is the “innovation system”.

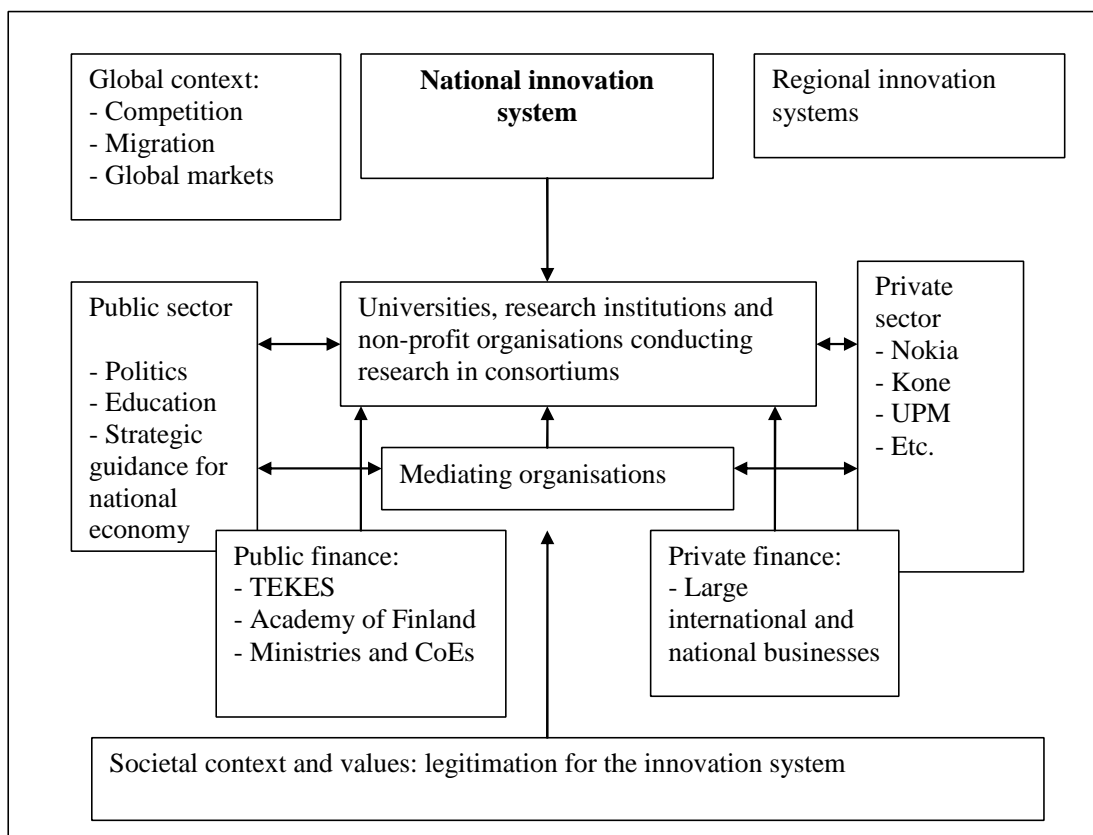


Figure 1.4. Characterisation of a national innovation system. Modified from Suorsa (2006)

Soursa (2006: 27) has conceptualised the key-actors of national innovation system. Figure 1.4 shows the modified conceptualisation of the national innovation system is presented with named key-players. The purpose of the innovation system is to ensure the adequate public sector funding to the innovation processes. It also aims to increase and intensify national, European and global networking in the field of R&D. The geographical balancing effect is connected to the national innovation system through “regional” innovation systems. The regionally targeted innovation systems are executing the national level goals on the local level. Thus, they can be seen as sub-categories for the national scale.

Technology policy, like the science policy, aims also to increase and expedite the utilisation of growing research results and to promote the emergence and growth of new companies. The policy guidelines suggest that this should take place though the effect a substantial increase in public R&D funding, which will be allocated to R&D. Commercialisation of results in the services sector is also promoted in the policy guidance. Finland has a special organization, The Science and Technology Policy Council, for the formulation of national science, technology and innovation policies. The Council is headed by the Prime Minister and its members are drawn from the public and private sectors. In the public sector, government ministries are in charge of the implementation of these policies and, correspondingly, companies are active in the private sector. Additionally, there are several advisory, support and financing organizations to cooperate and assist in policy implementation and in the practical innovation development work.

In the organisational sense, the technology policy is on the responsibility of the Ministry of Trade and Industry. The responsibility for measures geared to develop and disseminate new technological knowledge has been assigned to agencies in the Ministry's sector. International evaluations of Finnish innovation activities, R&D, technology and competitiveness have shown that Finland ranks in these fields among the leading countries in the world. The Science and Technology Policy Council have made the goal of the public funding that should increase faster than the estimated GDP growth. This process of change and growth has been driven by a combination of public and private commitment (see table 1.5). The Finnish government has systematically promoted new technologies, R&D, and new business creation, particularly over the past couple of decades. Numerous technology programmes have been initiated and extensive innovation and technology funding is provided through organizations such as the Finnish National Fund for Research and Development (SITRA), the National Export Credit Agency (Finnvera), the Foundation for Finnish Inventions, the Finnish National Technology Agency (TEKES) and regional TE Centres. There are also many other active organizations including government ministries and their regional offices, universities, science parks, organizations for industry, entrepreneurship or commerce, venture capital organisations, banks and consultancies that are taking part in the actual realisation of the technology and innovation system. Funding is usually a combination of private and public financing.

Table 1.5. Finnish R&D development during the years 1991 to 2005. Source: Statistics Finland 2006 and www.research.fi

Year	Enterprises		Public sector ¹⁾		Higher education sector ²⁾		Total	GDP share of R&D ³⁾	
	mill. €	%	mill. €	%	mill. €	%		mill. €	%
1991	975	57	358	21	378	22	1711		2
1992	992	57	372	21	384	22	1747		2,1
1993	1049	58	380	21	368	21	1796		2,2
1994	1250	62	380	19	379	19	2008		2,3
1995	1373	63	374	17	425	20	2172		2,3
1996	1657	66	395	16	452	18	2504		2,5
1997	1917	66	409	14	580	20	2905		2,7
1998	2253	67	444	13	658	20	3354		2,9
1999	2644	68	470	12	765	20	3879		3,2
2000	3136	71	497	11	789	18	4423		3,4
2001	3284	71	501	11	834	18	4619		3,4
2002	3375	70	530	11	926	19	4830		3,5
2003	3528	70	515	10	962	19	5005		3,5
2004	3684	70	530	10	1040	20	5253		3,5
2005 ⁴⁾	3770	70	538	10	1080	20	5388		3,5

[Source: Statistics Finland, Science and Technology Statistics](#)

1) Including private non-profit sector

2) From 1997, including university hospitals; from 1999, polytechnics.

3) GDP 2003 and 2004 Statistics Finland's advance data; GDP 2005 the Ministry of Finance's GDP forecast.

4) Estimate on the basis of survey responses and other calculations.

We might approach the R&D system also from the perspective of given and applied patents. The number of patents a company or a country can be used as one measure of relative innovation. Finnish individuals, research teams, and companies file around 2 000 patent applications annually, of which around 70 percent result in patents. These figures were slightly higher between the years 1999–2001 because of the information technology boom. Per capita, this places Finland in the number four slot worldwide, after Japan, the USA and Germany. The current leading organization in terms of the most domestic patent applications lodged is Nokia Corporation, which filed 177 such applications in 2003. Second is Metso Corporation, with 172 applications. The Technical Research Centre of Finland (VTT) is on the third position with 54 applications, followed by Outokumpu Corporation (52) and Kone Corporation (49). In addition to domestic patents, international patents and trademarks have an important role for national innovation capability.

Finnish information society policy

The current Finnish information society strategy was published in September 2006. It is the third consecutive strategy. The earlier strategies were published in the years 1994 and 1998. This third IS strategy outlines that the Finnish information society's focus has shifted from an

ICT utilizing society towards a knowledge-based society. It thus mentions as its target the creation of a renewable, humane and competitive Finnish society.

The aim is condensed in a vision sentence, which translates to “A good life in the Information Society”. It focuses on bettering the citizens’ and enterprises’ quality of life in a more competitive oriented world, and thus aims to create competitiveness from the well-being of the society. Three areas are considered: 1) Finland is to be developed as a humane and competitive service society; 2) The innovation system needs to be renewed as ideas have to be refined as services and products; and 3) Citizens’ and work communities’ skills and learning abilities need to be bettered. Additionally, the trust towards IS, a working ICT infrastructure and a socially and territorially equal IS development need to be ensured. The main actions to achieve the vision include the process of life long learning, more efficient provision of new technologies and services; and the development of more efficient innovation system.

The strategy’s will is to create a ‘Finland-phenomenon’ – a society with equal balance of work, family life and leisure time – by the year 2015. At that time ICT is seen to be a seamless part of the everyday life. Knowledge and information are key strategic resources, and also the most important factors of production of the Finnish economy. Finland is wanted to be a competitive Information Society, in which trust (towards others and services) and know-how are key elements. The ICT, forest and metal sectors are further seen as the essentials of the Finnish economy, and the service sector is seen as a potential growth area, by increase of e.g. healthcare, education and tourism services. Finland is also wanted to be in the European forefront of IS development (Frank et al 2006).

1.6 Chapter conclusions

This chapter described relevant fields for the ACRE project. The role Helsinki region and Helsinki metropolitan area is significant in Finland. The Helsinki region (Uusimaa) adds one third to the total of the Finnish GDP (Inkinen 2005b: 143). Regional policy has traditionally been balancing in Finland and there has not been urban policy to support growth nodes in global competition. However, there have emerged first collaborative efforts to initiate urban driven development actions. A tool in this is the development of spear head projects to key-fields. Therefore, all national aspects should be analysed the way the importance of the Helsinki region and the metropolitan region are taken into an account.

Finland has a sophisticated innovation system that includes various actors from public and private sectors. In addition several mediating organisations and co-operation systems have been developed during the last 10-years. Perhaps the most important lesson of the chapter is that a nation can recover relatively fast from a severe economic crises if there is a political and economic will to drive the required changes. In the case of Finland the success story of Nokia has also made the recovery process of the crises easier.

The third conclusion is that Finland ranks very well on practically all measurements dealing with innovation and knowledge based economy. The reports presented by OECD (2005), WEF (2007) and several ESPON projects confirm this interpretation. The global pressure, however, forces national systems under a constant change. Therefore, the adoption for continues change seems to be one of the major challenges in Finland and other European countries in general.

The fourth and final conclusion concerns the aging of the population and related imbalance between pensioners and the work force. The aging question is combined to the question of migration and to the needed international labour.

2 Introduction to the region

2.1 Regional categories and concepts

Helsinki team uses the spatial definition of “Helsinki metropolitan area” as the main study location. There are several other related concepts closely linked to this concept. Therefore, the following definitions are essential in order to define local scale spatial categories in the vicinity of Helsinki. The following definitions are also used by the Helsinki metropolitan area Council (YTV) as official definitions (figure 2.1).



Figure 2.1. The Metropolitan Area (dark area) and Helsinki region (light area). Source: Karvinen 2005:2; City of Helsinki Urban Facts 2005

Helsinki metropolitan area (YTV) is the area, which includes the cities of Helsinki, Espoo, Vantaa and Kauniainen. This is the standard aggregated unit (group of municipalities) that we use through out the ACRE project to refer to the Helsinki metropolitan area.

Surrounding areas: YTV areas' closest surroundings include municipalities of Hyvinkää, Järvenpää, Kerava, Kirkkonummi, Nurmijärvi, Sipoo, Tuusula and Vihti (8 municipalities).

Helsinki region: Helsinki region is formed by YTV area and the surrounding areas (12 municipalities).

Holstila (2007) has discussed the role of the Helsinki region in the urban structure of Finland. Helsinki region is the economic and administrative centre of Finland that is visible in all available measures. Proportion of GDP value-adding is one third, population one fifth and every fourth person employed in Finland is working on the vicinity of the Helsinki region. The economic significance of Helsinki region has caused the need for more precisely defined urban policy measures discussed in chapter 1. Thus, the economic and social impact of the core area is reflected to an extensive area. OECD (2003) has used even larger spatial definition of the Helsinki region. OECD-report defines that functional urban areas of Hämeenlinna and Lahti (middle-sized cities with 50 000 to 100 000 inhabitants) are included under the concept of "greater Helsinki region". Thus, they are considered to be under the economic influence of Helsinki metropolitan area and region. The greater Helsinki region is not an official regional category and it should be considered as a political vision.

Helsinki metropolitan area and the city of Helsinki is an important node of the Baltic Sea region. OECD (2003: 51) has discussed the Helsinki region's position in the North-East European context. Their overall analysis shows that the role of the Baltic States has increased (North-South axis) compared to the old West-East axis in the major connection directions. In general, the role of the Baltic Sea Region has gained more importance in European Union-Russian trade. This contextualises Helsinki to a broader international context, in which the fast growing Baltic economies and influence of both Stockholm and St. Petersburg are essential.

2.2 Geographical and demographical context

The demographic context of Helsinki metropolitan area includes population developments in all three major cities (Helsinki, Espoo and Vantaa) and the Helsinki region. We begin by looking at the regional figures. At the beginning of 2005, the population of the Helsinki region was 1 240 500. The figure grew by 11 300 people in 2005. Considering the elements of growth a total of 15 320 children were born in 2005 where as 8 680 people died. The net migration rate was 4 650 people.

In 2005, Helsinki had 559 000 inhabitants. Figures from the official statistics (Statistics Finland) show that during that year there were 6 090 births and 4 700 deaths. This amounts the natural population growth to 1 390 people compared to year 2004. Added with a net migration rate of 590 people, the total population growth is 1 980. Essential indicators of demographic context of Helsinki and region are presented in table 2.1.

The second large city in the Helsinki metropolitan region is Espoo. The population figure on January 2005 was 227 500 people. The total population growth in Espoo was 4 150 compared to year 2004. The natural population growth figures show that there were 3 360 births and 1 180 deaths. The net migration was 1 970 people. It is essential to recognise that the population in Espoo grew more than in Helsinki even they have a considerable size difference. This fact demonstrates the population dynamics in the metropolitan region.

The third city of metropolitan area is Vantaa. The total population in January 2005 was 185 400 people and the corresponding growth from 2004 was 1 790 people. The major reason for Vantaa growth was natural population increase. The net migration was relatively small 290.

Considering the number of international migration in Helsinki region a total of 8 400 people from other countries to the Helsinki Region in 2005. On the other 4 940 people moved abroad. This sums the international net migration to 3 460 people. The international migration surplus was 1 950 for Helsinki, 650 for Espoo and 450 for Vantaa. The rest of the region received an international net migration of 370 people. (City of Helsinki, Urban Facts 2006a).

Table 2.1. Some key indicators of Helsinki and Helsinki region. Source: City of Helsinki. Urban Facts 2006b

	Helsinki	Helsinki Region	Year
Total area km ²	686	4,693	2005
Land area km ²	186	3,091	2005
Population	559,046	1,240,482	2005
Population density inh./km ² of land area	3,005	401	2005
Population projection 1.1.2010	566,671	1,292,107	2005
Finnish-speaking %	86,7	88	2005
Swedish-speaking %	6,2	6,5	2005
Other languages %	7,1	5,1	2005
Population (15-year-olds and over) that has attained tertiary education %	34	34	2004
Total number of jobs	370 370	656 781	2004
Employment rate % (15-64 years)	74,1	74	2005
Unemployment rate % (15-64 years)	7,2	6,3	2005
Proportion of one-person households %	48,1	41,2	2005
Proportion of dwellings in blocks of flats %	87,2	69,8	2003

The estimates forecast that the population will continue to grow at the Helsinki metropolitan area. For example, Helsinki metropolitan area advisory board (2006) has published an extensive report describing the expected future developments till the year 2015. The report estimates (2005: 2) that the population will increase approximately to 1.3 million by the year 2015. Helsinki metropolitan area is on the growth track also on the future (also chapter 4.1).

2.3 Position in European networks and hierarchy

The Helsinki region in a European comparison

Helsinki region can be characterised as a “moderately large” urban regions in Europe. Similar sized regions are for example Florence, Murcia and Palermo. In the following overview, the

Helsinki Region is compared with urban regions of the same size that have approximately a population of 1–2 million inhabitants in the EU-15 countries. We have selected some measurements (figure 2.3) that show the positioning of Helsinki among these urban regions.

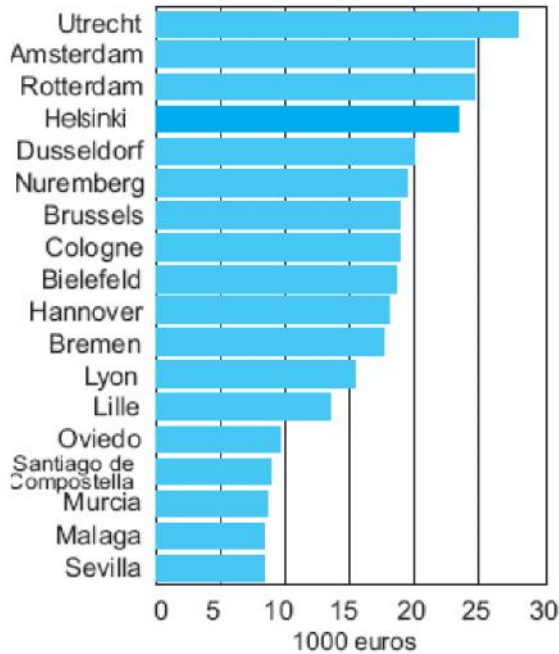
Helsinki ranks also high in terms of security. In the presented comparison of the figure 2.2 Helsinki is second after Luxembourg. Other city regions such as Geneva, Zurich and Bern rank in the same category. Considering over seas destinations such as New York, the security index is high in Helsinki. NY has an index rating of 100. The international top is Luxemburg that has index rate of 122.5. Helsinki and the three Swiss cities have 120. Stockholm, Oslo and Copenhagen have ratings that come very close. The other cities scoring over 110 are Vienna, Düsseldorf, Frankfurt am Main, Munich, Nuremberg, Amsterdam and Brussels. The least safe cities, all rating below 66, are Belgrade, Kiev, Sarajevo, Istanbul, St. Petersburg and Moscow. Athens, Rome and London rank among the rather unsafe cities, with indexes just below 100.



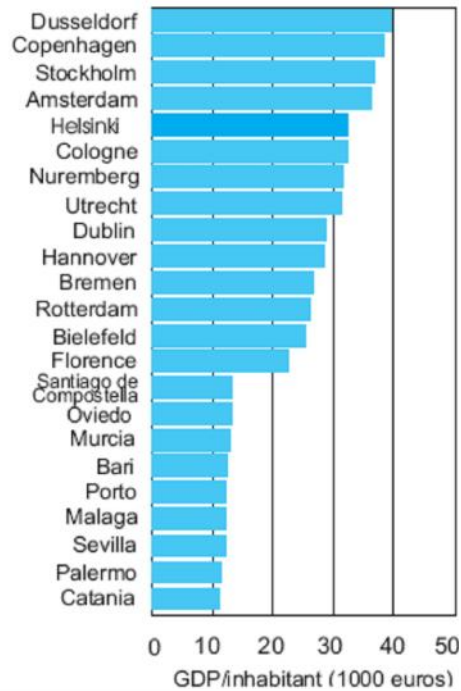
Figure 2.2. Quality of life index: security in selected European cities. Source: Mercer Human Resource Consulting; the city of Helsinki. Urban Facts (2006).

The ranking of cities by degree of safety is based on a global survey on the quality of life conducted in 2004 by an international consultancy firm. Part of the survey, which included 215 cities, concerned safety. The assessment was made using six main criteria, namely relationships with other countries, law enforcement, internal stability, media & censorship, crime and limitations on personal freedom. Each criterion has a coefficient of its own. Relationships with other countries, internal stability and crime have the highest coefficients (City of Helsinki, Urban Facts 2006).

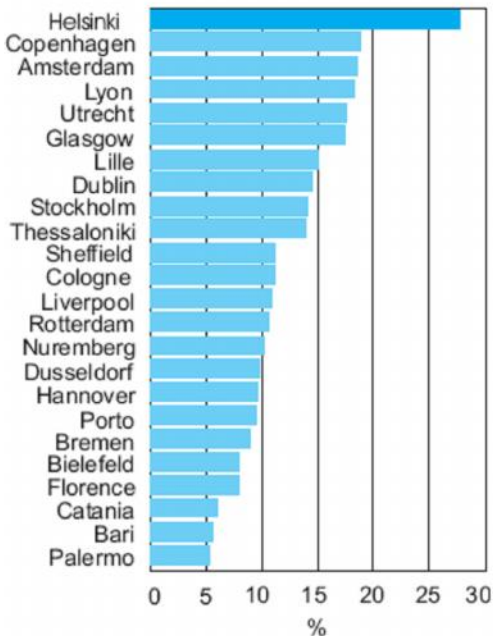
Average income in EU-15 urban regions with a population of 1–2 million



GNP per capita in EU-15 urban regions with a population of 1–2 million



Percentage of women with a high level education in EU-15 urban regions with a population of 1-2 million



Housing space per capita in EU-15 urban regions with a population of 1-2 million

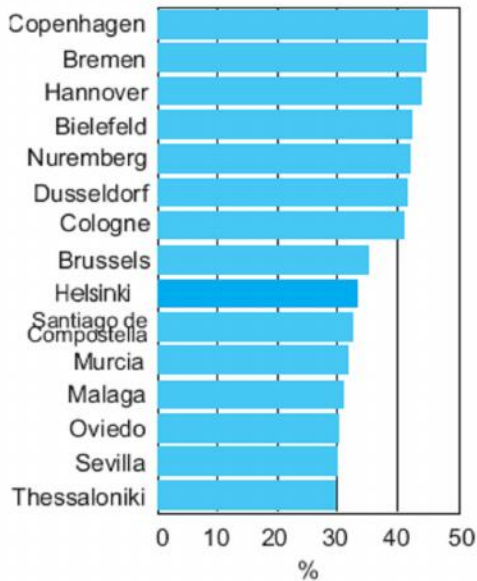


Figure 2.3. Four selected indicators compared with corresponding urban regions by size. Source: City of Helsinki. Urban Facts 2006a

Figure 2.3 shows in general that Helsinki region is scoring well in the comparisons of other European city regions. Perhaps the most important finding regarding the dimensions presented is the high education level of women in Helsinki and in Finland in general. The gender equality is one of the key dimensions in Finnish society and it has been discussed constantly in public debates.

The Helsinki region has a relatively young population structure. The demographic dependency rate is second lowest among the cities compared (after Amsterdam). In addition, the proportion of over 75-year-olds is the third smallest. This proportion is greatest in the regions of Florence and Oviedo that have the figure of 10 per cent in both. The population of the Helsinki region has a high level of education: more than a quarter of men and women have a higher degree of education. Helsinki is the leading region among the compared locations.

Laakso (2004) has studied the economic condition of the Helsinki metropolitan area from European perspective. He shows (2004: 10) that employment growth in the Helsinki metropolitan area was the second fastest (3.8% per year) after Dublin (6.8% per year) between years 1995–2002. The growth is expected to continue till 2008 but the phase will slow down to 1% per year. This puts Helsinki metropolitan area to fifth position after Madrid, Athens, Barcelona and Zurich. As a conclusion Laakso (2004: 13) states that Helsinki metropolitan area can be regarded as a modern and dynamic functional urban area among other European metropolitan areas. The results presented by Laakso are similar with the latest available data presented in figure 2.3 and there have not been dramatic changes, because GNP per capita is fifth highest in the Helsinki region in the 2005 figures, after the regions of Amsterdam, Stockholm, Copenhagen and Dusseldorf. The average income of inhabitants in the Helsinki Region is fourth highest among the cities compared, after Amsterdam, Rotterdam and Utrecht. It is necessary, however, to note that the data on income have limited coverage, because almost half the regions compared did not provide such data. Only half of the regions compared provided data on housing density, thus living space per capita. Therefore, the amount of regions varies in figure 2.3.

An important result is the GDP and housing space relation. Among EU–15 city regions Helsinki with its 33 square metres per capita ranks in the middle range. The inhabitants of the Copenhagen Region have most space per person. The comparison shows that average Helsinki household size is relatively small compared to the GDP level (also Laakso & Kostianen 2004). This also shows in housing statistics (chapter 4.5). Society-supported housing is about as common in the region of Helsinki as in those of Lille and Lyon, and here too, the Helsinki region with its 20 per cent ranks in the middle range. The greatest proportion of society-supported housing is found in the regions of Amsterdam and Rotterdam. One of the key challenges in the housing design and policy has been the need to provide more spacious single and attached house apartments to families.

2.4 Chapter conclusions

This chapter describes the general features of the Helsinki region and metropolitan area. There are three main conclusions. First, the population grows in the metropolitan area. Helsinki metropolitan area has been of the fastest growing metropolitan areas in Europe. The growth is also stronger in the fringe areas than on the core (see chapter 4.1). This is mainly

achieved through natural population increase, thus there are more babies born than persons who died. Net migration has been positive also in the year 2005 in the three major cities comprising the metropolitan area but there are fluctuations. For example the city of Helsinki experienced a negative net migration in the years 2003 and 2004.

Second, Helsinki is an important node in the Baltic Sea Region. The European Union-Russia trade routes and transit figures are high in Finland. This puts a pressure to infrastructure development. A good example of the renovation of the infrastructure is the new harbour located in the Vuosaari area of Helsinki. The move of port operations has also impacts on housing, because the old harbour areas become available for housing. The development of these new housing areas will be one of the key issues of ACRE project thematic in Helsinki.

Third, the city of Helsinki and the metropolitan area are doing well in international comparisons. The GDP levels are high following the national figures and social indicators show that security and operability of public administration is good. Thus, the levels of corruption and institutional problems are small. The employment growth indicators are also good if compared to other European metropolitan areas.

3 Perspectives to creativity and knowledge economy in the context of Helsinki

3.1 Background to an innovative city

Helsinki metropolitan area and the surrounding region are the motors of Finnish economy. The pathway of capital area to its current position has been intertwined to the history of the Finland. We might say that the development started when the Finnish capital was moved from Turku (Åbo) to Helsinki in 1812. Since then the growth and size of Helsinki and surrounding areas have been in their own class compared to other urban locations in Finland.

Educational system plays the essential role in the creation of knowledge. Particularly, the role of the universities is undeniable in knowledge-based-society. Helsinki metropolitan area has the oldest and the most qualified universities in Finland. The University of Helsinki is old and traditional university that became to existence in the 1640 as the Academy of Turku and it was moved to Helsinki in 1828. The Helsinki University of Technology was founded in 1849 and it was given the university status in 1908. Since then it has been the key producer of engineers and technical scientist in Finland. Finally, the universities providing education of arts are important. The Helsinki University of Art and Design was founded in 1871 and it became a public university in 1973.

A specific characteristic of Finnish society was the welfare state “building” era that begin in the 1950s and continued to 1970s. During that period the existing institutions were founded to comprise the essence of a “Nordic welfare state” (in urban context see Vaattovaara & Kortteinen 2003). Together with the existence of universities and institutions securing social and welfare policy the basic structures for innovative city were created (see in detail Bell & Hietala 2002). The combination of welfare state and knowledge economy is the fundamental thesis of Manuel Castells and Pekka Himanen (2002) who have studied “the Finnish model of information society”. In other words, the structures of welfare state and the knowledge intensiveness are the specifics of the Finnish “model”.

The essential role of the Helsinki region for the whole country means challenges for regional policy and urban policy. Currently, the regional disparities are increasing both in the terms of municipality size and income. The situation means balancing between traditional goals of regional policy (all parts of the country “equal”) and global competitiveness (Helsinki area as the core). One key of the factors that has characterised the development of the Finnish knowledge economy is the ICT cluster. The presence of Nokia and its subcontracting network is a significant single factor affecting the whole economy. The specialisation has also been seen as a source of vulnerability. Thus, the economy has been seen as too dependent on one industrial sector (also OECD 2003: 14).

An interesting innovation based idea in the Helsinki metropolitan region is so called science corridor that was presented by OECD (2003: 65) in a territorial report concerning Helsinki. The traditional university institutions were regarded as nodes of the “corridor” system within the metropolitan area. The science corridor includes several nodes based on the expertise of educational units. For example, engineering node is Helsinki University of Technology located in Otanniemi, Espoo, medicine node is Meilahti (the medical faculty of University of Helsinki), social sciences

and humanities are located in the centre of Helsinki, natural sciences in Kumpula, agriculture and forestry in Viikki and arts and design in Arabianranta (figure 3.1).

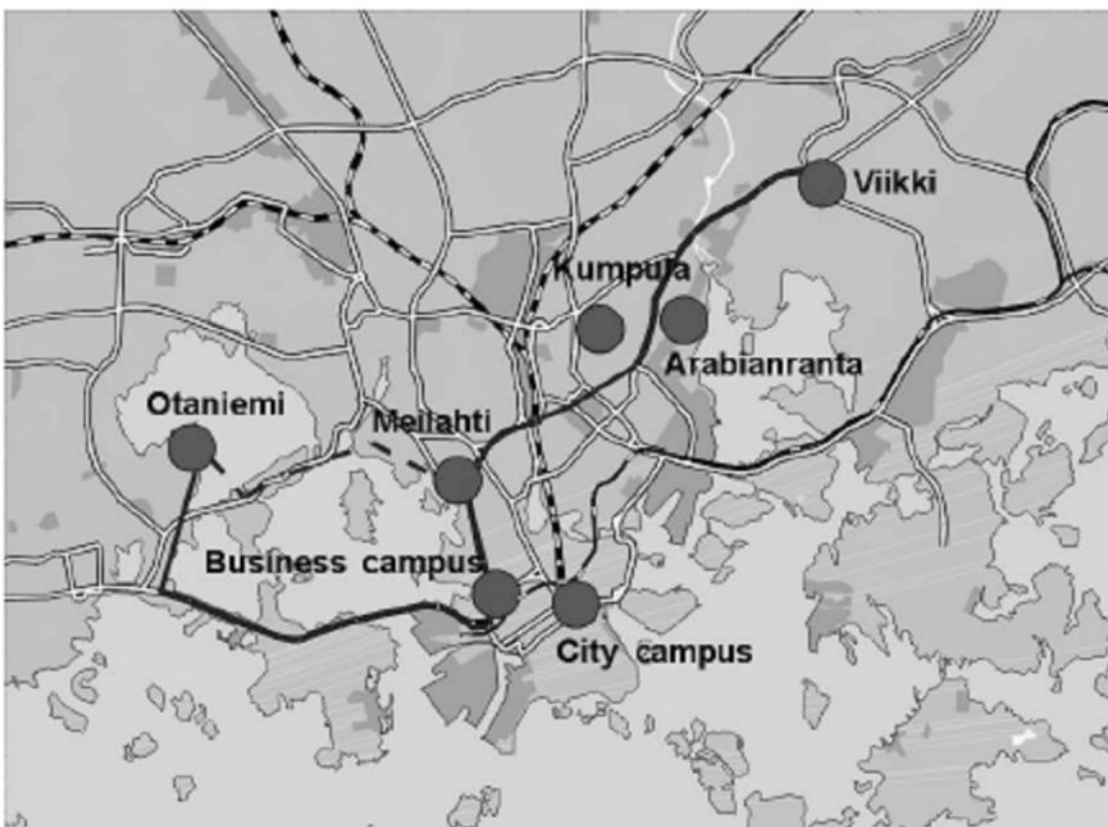


Figure 3.1. Helsinki Science Corridor as presented by OECD (2003: 65)

The science corridor idea nicely presents the university campus locations in the Helsinki metropolitan area. One essential characteristic of this corridor is that six of the nodes are located in the vicinity of the city of Helsinki and one in the vicinity of Espoo. The city of Vantaa for example does not have any university locations. The development of the metropolitan area requires co-operation of all city administrations. The problems related to different needs and perspectives of city councils are causing the overall development of the metropolitan area problematic. A clear example of this is the expansion of the metro-system to Espoo. The decision was proceed by a large debate. Therefore, the development of the metropolitan area is taking place through the interaction of the three cities.

3.2 Arts and culture as creative motivators in Helsinki and surrounding region

The City of Helsinki is a nationally important provider and sponsor of arts and culture. Helsinki is the only Finnish city which can compete with other major European cities in cultural amenities. The city's authorities for arts and culture accounted for 6.4 per cent of the city budget's operational margin in 2000 (Äikäs 2005: 110).

The concept of “creativity” has been the hot topic for research and policy makers for some time now since the publication of “creative class” by Richard Florida. Satu Silvanto (2005) has studied the condition of creativity in Helsinki and she uses the thesis of Florida regarding the city of Helsinki. Florida’s thesis can be used to identify key professional groups and occupations in creative and knowledge intensive industries. These include for example editors, designers, architects, artists, entertainers, engineers and researchers. Silvanto (2005: 28) writes that the workers in these creative occupations are “nomads” who choose their living location according to their attractiveness.

The diverse and extensive supply of cultural services is one factor in the creation of attractive urban condition. Silvanto uses Barcelona as an example of the city that has recognised this importance. However, more empirical evidences are needed regarding the needs and opinions of these creative persons. The empirical work packages of ACRE will provide more light to this. Particularly arguments concerning the needs of key-professional need empirical data. Claims stating that that “creative class” would be more interested in street culture than traditional forms of arts or that they would be particularly hungry for experimental urban events are examples of issues that need solid empirical evidences.

In the following some key statistics of cultural institutions in Helsinki are presented. The statistics include Helsinki metropolitan area and surrounding region. An extensive information source regarding the cultural condition of Helsinki has been published by the city of Helsinki, Urban Facts (2005) that provides the up-to-date statistics on culture. Table 3.1 presents the key-numbers.

Table 3.1 shows that Helsinki is the concentration point of cultural activity of the metropolitan area. The domination of the city of Helsinki is particular in the cases of symphony orchestras, theatres, cinema screens and museums. The only in some scale equally distributed “cultural” institutions are sports facilities. Considering the population amounts, Helsinki vs. rest of the metropolitan area, that is approximately 50% to 50% the concentration of culture is clearly clustered to the city of Helsinki.

Table 3.1. Cultural institutions in Helsinki and surrounding regions 1999. Source: OECD 2003, 47; Statistics Finland Finnish Film Foundation; The Finnish Museums Association; Association of Finnish Symphony Orchestras; Finnish Theatre Information Centre

	Number of symphony orchestras active in region	Number of theatres	Number of cinema screens	Number of museums	Number of central and branch libraries	Number of sports facilities
Helsinki	3	17	62	80	55	2501
Metropolitan area	4	22	65	92	86	3421
Helsinki region	4	22	69	123	106	4415

In the following we will concentrate on culture supply in the city of Helsinki. Table 3.2 shows the basic information regarding arts and cultural centres in Helsinki in the year 2004. From the table we see that majority of current centres are established during the 1990s or later. Thus, the investments in cultural infrastructure have been active during the last decade. Kaapelitehdas (cable factory) has the largest exhibition premises in Helsinki (4 300 square metres) that is roughly three times the corresponding floor area of well known Finlandia Hall design by Alvar Aalto.

Table 3.2. Arts and cultural centres in Helsinki 2004. Source: Keskinen 2005: 12

Cultural and congress centres in Helsinki	Opening year	Seats	Exhibition premises m2
1 The Alexander Theatre - theatre, dance and opera performances, ballet school, cultural office, rehearsal facilities	1879/1993	473	
2 Finlandia Hall - congresses, concerts, exhibitions, restaurant, service centre, shops	1971/1975	2 040	1500
3 Stoa - cultural centre, library, adult education institute, youth club, dance, theatre, music, cinema, exhibitions, restaurant	1984	850	150
4 Cable Factory - exhibitions, museum activities, artistic performances, parties, fairs, theatre and dance performances, companies, artists, adult education institute, restaurant	1991	3600	4 300
5 Kanneltalo - cultural centre, library, adult education institute, gallery, youth club, concerts, seminars, training events	1992	370	140
6 International Cultural Centre Caisa - guidance, counselling, information, art exhibitions, concerts, education, dance and sports	1995	150	90
7 House of Culture - concerts (Finnish Radio Symphony Orchestra), congresses, exhibitions	1958	1 400	900
8 Malmi House - cultural centre, library, adult education institute, music institute, youth club, children's events, exhibitions, congresses, restaurant	1994	330	100
9 Savoy theatre - theatre, concerts	1987	700	180
10 The White Hall - exhibitions, musical performances, meetings, dance, restaurant	1988	400	410
11 The Old Student House - concerts, exhibitions, meetings, parties, dance, restaurant	1988	400	165
12 Vuosaari House - library, adult education institute, cultural centre, music institute, educational office, café, theatrical performances, celebrations, dances, exhibitions, concerts	2001	455	145
* Member of "Suomen kulttuuritalojen neuvottelukunta" (the advisory board on halls of culture in Finland). 1) Includes total number of seats in both large and small halls.			

Tables of 3.1 and 3.2 show the existence of "traditional" arts and cultural centres in Helsinki. Due to the fact that several cultural locations have been opened or renovated in the 1990s shows the demand for these activities.

Art and culture services are a large employer in Helsinki metropolitan area. Karvinen (2001: 5) writes that in December 2001 there were 31 788 employees in cultural sector. This means that the sector provides living for 7% of employed persons in Helsinki metropolitan area. The corresponding figure for the city of Helsinki was 8.5% that is expected considering the concentration of cultural activities to the core city. These figures are above the national average of 4%.

Another essential of the "creative society" is publishing and the production of literature. This was also identified as one of the indicators relevant to ACRE in the Amsterdam meeting. Table 3.3 shows the overall development of book publishing in Finland in the years 1980–2005. These statistics are national but the publishing industry is concentrated to the capital area (also table 5.2). According to the earlier table 3.1 we see that only the proportion of Helsinki of the publishing positions is 41.1% of the whole Finland. In General the amount of published books has increased constantly in time. Also the proportion of translated books has increased to almost a double from 1980 to 2005. The development of publishing industry demonstrates the transformation towards "a knowledge based society" because books and printed media is one of the major information distribution channels also in the era of digital publishing.

Table 3.3. The amount of published books in Finland 1980–2005 with classifications to different languages and first editions. Source: Statistics Finland 2006 <http://www.stat.fi/til/klt/2005/klt_2005_2006-04-12_tie_001.html> Accessed 16.11.2006.

<i>Finnish and translated books published 1980–2005*</i>													
Year	Finnish books						Translated books				Total		
	Finnish language ¹⁾	Swedish language	Finnish and Swedish language total	Other languages	Total	Share of all titles	Into Finnish	Into Swedish	Total	Share of all titles	Of which first editions		
	Titles					%	Titles			%	Titles		%
1980	4 387	342	4 729	767	5 496	84,4	959	56	1 015	15,6	6 511	100	6 294
1985	6 181	474	6 655	1 280	7 935	88,9	906	89	995	11,1	8 930	100	8 358
1990	6 512	598	7 110	1 370	8 480	83,5	1 562	111	1 673	16,5	10 153	100	9 482
1995	8 669	605	9 274	2 254	11 528	85,4	1 857	109	1 966	14,6	13 494	100	12 723
2000	7 097	385	7 482	2 088	9 570	81,3	2 106	88	2 194	18,7	11 764	100	11 066
2001	7 497	372	7 869	2 281	10 150	84,0	1 862	78	1 940	16,0	12 090	100	11 219
2002	7 375	406	7 781	2 271	10 052	83,3	1 928	89	2 017	16,7	12 069	100	11 088
2003	7 650	460	8 110	2 232	10 342	84,0	1 887	80	1 967	16,0	12 309	100	11 440
2004	7 939	513	8 452	2 417	10 869	83,8	2 007	101	2 108	16,2	12 977	100	12 104
Books	6 801	437	7 238	1 967	9 205	84,6	1 596	82	1 678	15,4	10 883	100	10 074
Small publications	1 138	76	1 214	450	1 664	79,5	411	19	430	20,5	2 094	100	2 030
2005	8 482	555	9 037	2 281	11 318	82,8	2 235	114	2 349	17,2	13 667	100	12 658
Books	7 290	468	7 758	1 903	9 661	83,8	1 767	95	1 862	16,2	11 523	100	10 576
Small publications	1 192	87	1 279	378	1 657	77,3	468	19	487	22,7	2 144	100	2 082

* Based on data from the national bibliography as classified by subject under Finnish literature. Statistics compiled according to Unesco recommendations (see Unesco Statistical Yearbook). Small publications (5–48 pages) are included in the figures.
1) Also includes books in two or more languages.

There are some notions that have to be discussed regarding the table 3.3. First, the statistics are national. Unfortunately, there are no regional or local level statistics available regarding the publications. However, due to the fact that practically all important publishers have their head offices in Helsinki metropolitan area and more particularly in the city of Helsinki, the statistics have an embedded regional dimension. Second, the publishing is an important employer and field of industry in the Helsinki region (see for more details chapter 5).

Table 3.3 shows fluctuating numbers of published titles between the years 1980 and 2005. There is a slow increasing per year but annual differences are relatively small. Still the total amount of books was increased some 1 000 titles between 2000 and 2005. Majority of this growth has concerned the Finnish language literature. The share of other languages has remained relatively the same during 2000–2005 but there is also a little growth tendency. The year 2005 was also peak year for translated literature.

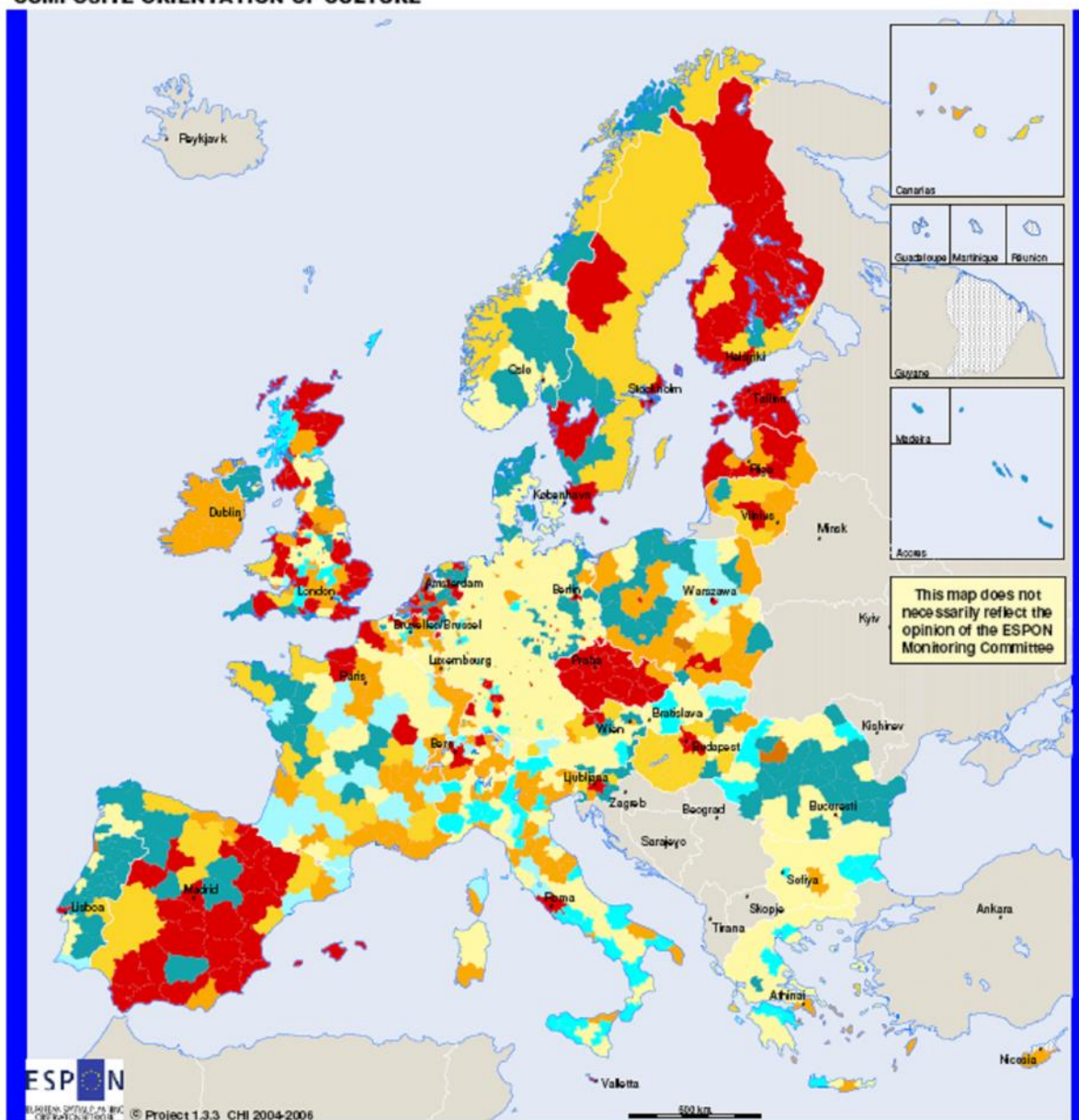
The dominance of Finnish language literature is not surprising, but considering the increasing amounts of international migration one might have anticipated stronger growth for other language publications. Thus, the increasing but still on the relatively low level of cultural diversity (see chapter 4.3) has not yet penetrated on the practices of publishing industry.

The theme of cultural diversity moves us to represent some of the findings done in the ESPON (European Spatial Observation Network) projects. This is important, because for example, the ESPON project 1.3.3. (see www.espon.eu) has provided an extensive European level analysis of cultural diversity and cultural condition in the European regions. Map of figure 3.2 nicely demonstrates the composite index map of cultural condition in territorial European space.

In the figure 3.2 the composite index identifies Finland mainly as an area with “high level of orientation to conservation and production”. Helsinki region (Uusimaa) is included to this category. This would thus imply that in general European perspective Helsinki region would be proactive in its cultural orientation. The general result of can be supported by more practical approach displayed in figure 3.3 where GDP per capita has been contrasted with cultural employment. Southern-Finland, including Helsinki, has been categorised into the “first quadrate”. This result implies that GDP per capita is high and also the number of “cultural employees” is also high. Considering the whole Europe it seems that all areas with major cities have the ranking of “first quadrate”. Nordic countries also tend have more hits to the first categories than other European countries.

The general problem related to regional studies on the whole European level are related to data quality and comparability. In the case of the two presented ESPON maps the interpretation is not straight forward for the needs of ACRE thematic. This is due that in the figure 3.2 the typologies are scattered across Europe and there are no clear dependency lines identifiable according to the geographical location or social condition. The figure 3.3 on the other hand demonstrates dependencies the way that regions with high GDP are more commonly in the same typology segment. In this respect, Helsinki region (included into the NUTS2 level of South-Finland) is in same group with ACRE partners of Germany, UK and the Netherland in figure 3.3.

COMPOSITE ORIENTATION OF CULTURE



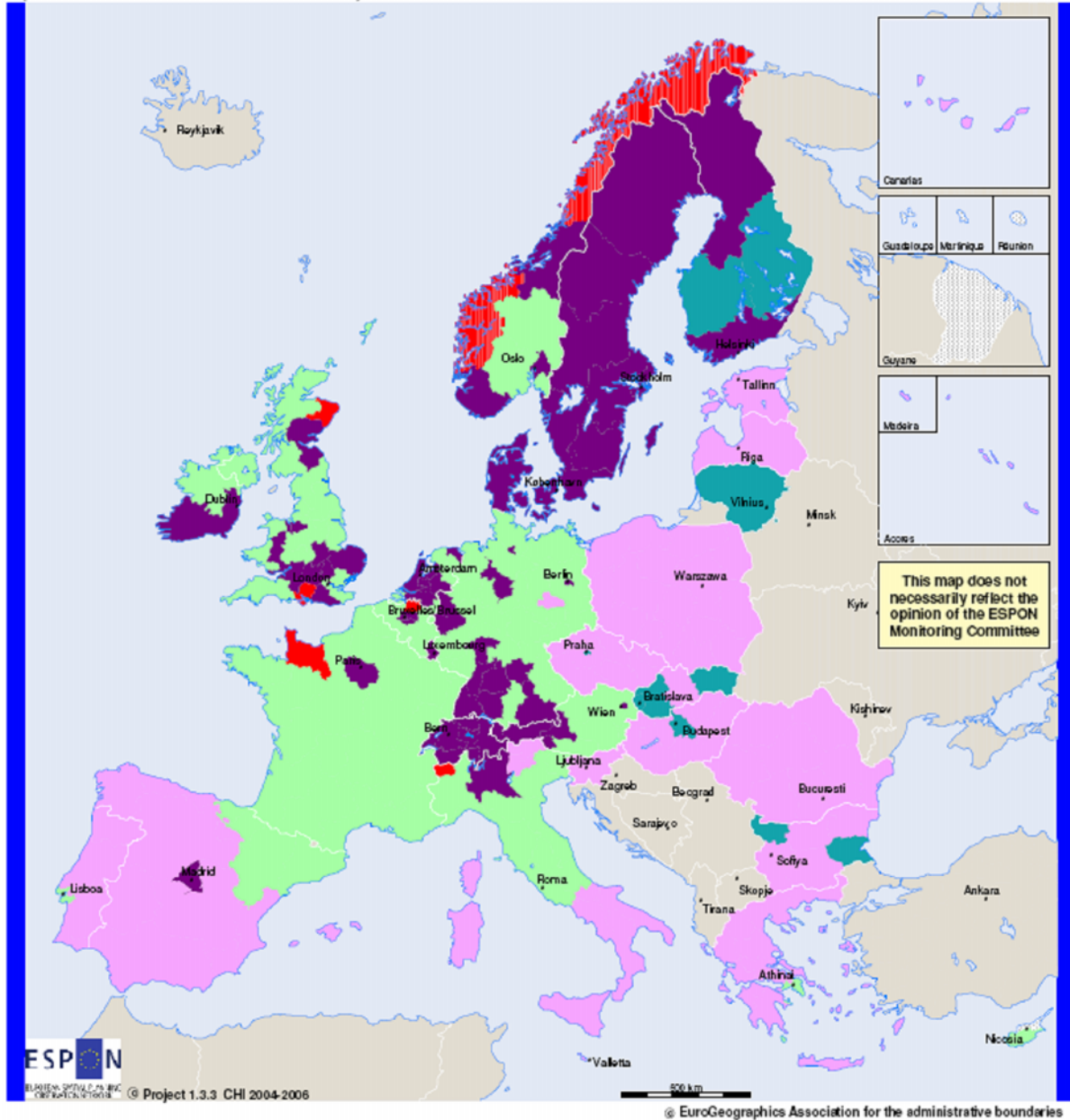
- Multi-specialised regions (CPV)
- Reproducerist (CP)
- Craftshops (PV)
- Classrooms (CV)
- Conservatorists (C)
- Productionists (P)
- Merchant regions (V)
- Non-specialised regions (O)
- no data
- non espon space

Algorithm-
7 categories:
 CPV.- High level of orientation to conservation, production and valorization
 CP.- High level of orientation to conservation and production
 PV.- High level of orientation to production and valorization
 CV.- High level of orientation to conservation and valorization
 C.- High level of orientation to conservation
 P.- High level of orientation to production
 V.- High level of orientation to valorization
 O.- Average or low level of orientation to any aspect of culture

Indicator in database 1.3.3 -
 Elaboration on selected indicators (see detailed methodology in Final Report)
Source and other metadata information:
 Various sources. See regional metadata (Annex Final Report). NUTS III
Reference year:
 (see reference years of base indicators)

Figure 3.2. European cultural diversity according to ESPON 1.3.3. project. Source: Espon 2006: 152

RELATION BETWEEN PER CAPITA GDP AND CULTURAL EMPLOYMENT
 (critical values above 0.75*st.dev.)



- Normal values (0)
- First quadrant (1)
- Second quadrant (2)
- Third quadrant (3)
- Fourth quadrant (4)
- no data
- non Espo space

Indicator in database 1.3.3 -
 Elaboration on indicators: F.1 (ESPON 1.3.3) and
 GDP00EH2 (ESPON 3.1)

Algorithm.-
 X: normalised per capita GDP.
 Y: normalised F.1 indicator
 $0 - X^2 + Y^2 < 0.75 \cdot \text{st.dev}$
 1.- X "high", Y "high"
 2.- X "low", Y "high"
 3.- X "low", Y "low"
 4.- X "high", Y "low"

Source and other metadata information:
 Various sources. See regional metadata
 (Annex Final Report). NUTS II

Figure 3.3. The relationship between gross domestic product and cultural employment in the Europe.
 Source: ESPON 2006: 174

3.3 Chapter conclusions

This chapter has two main conclusions. The first is that Helsinki and surrounding areas (metropolitan area and region) have developed in time as a “natural” leading node in the Finnish urban hierarchy. This is due to the factors related to population size, location of the key institutions such as parliament and other public administration offices, and economic importance. The early emergence of the key universities (University of Helsinki, Helsinki University of Technology and University of Art and Design) in the 19th century created the backbone for the metropolitan area “knowledge” creation. In broader perspective, the large physical size of Finland with small population causes difficulties to regional and urban policies. The question is about balancing between the regional equality and global competition. Helsinki metropolitan area is the only functional urban area in Finland that has the preconditions to for the international “competition”.

Second, the role of the city of Helsinki in the provision of cultural location and services is in pronounced if compared to other municipalities of the metropolitan area. The provision of cultural services and locations has increased since the 1990s. The European level regional study of ESPON 1.3.3 project showed that South-Finland that includes the Helsinki region has both high GDP and high employment rate of cultural occupations. In this respect, Helsinki should provide a good platform for the survey and interview studies of future ACRE work packages 5, 6 and 7.

4 Current situation in the Helsinki metropolitan area

4.1 Population trajectories

We will begin the statistical description of the current condition of the Helsinki metropolitan area with population. These changes have been presented in figure 4.1 and table 4.1. They show the overall population development in the Helsinki metropolitan area 1975–2005. During the 30 year period continues growth is visible with declining rate. Helsinki metropolitan region would be declining in population without positive birth rate. The migration balance is has been balancing between positive and negative. The composition of migration according to age groups is essential for two reasons. First, it shows the movement patterns of “key” age groups in economic activity (30 to 45 year olds) and the amount of least active groups requiring services (the oldest and youngest groups).

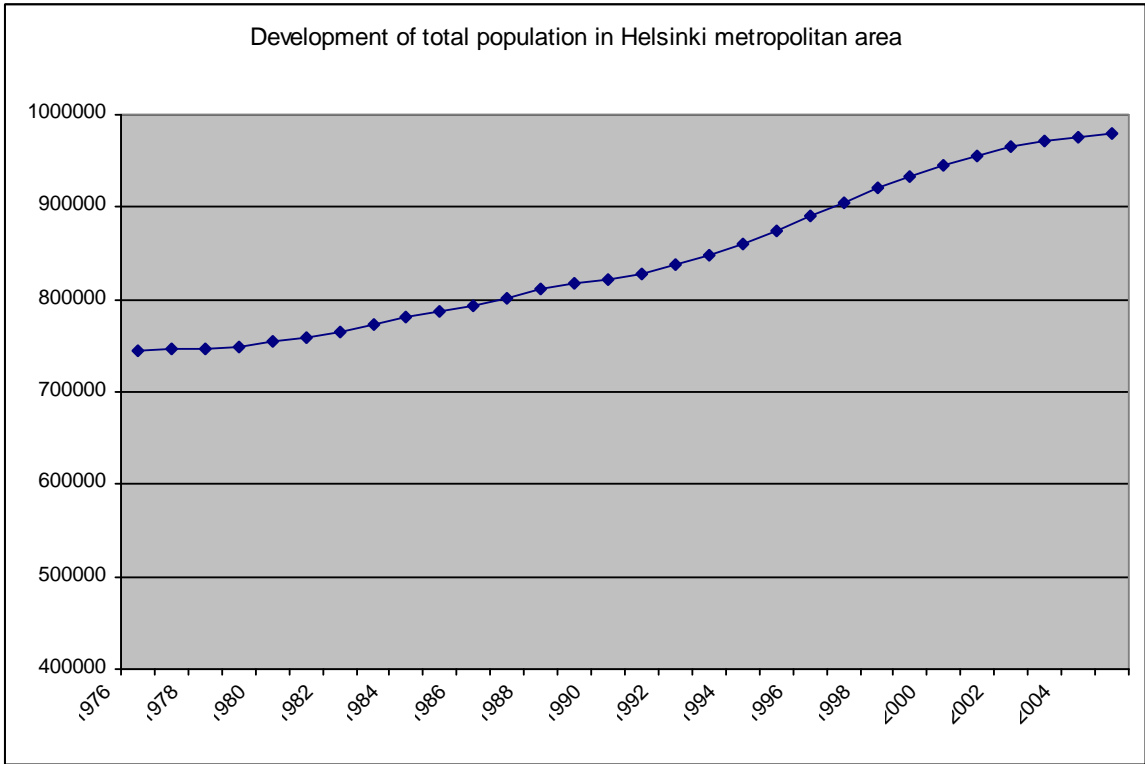


Figure 4.1. The development of total population in Helsinki metropolitan area 1975–2005.

Table 4.1. Migration flows to Helsinki metropolitan area according to municipalities 1985 to 2004. Source: City of Helsinki, Urban Facts.

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
Helsinki																					
0-4-years	-792	-667	-682	-1017	-891	-932	-860	-1110	-393	-684	-513	-718	-902	-861	-1089	-1125	-1201	-1177	-1304	-1288	
5-9-years	-198	-275	-240	-358	-415	-381	-153	-96	84	-123	65	-39	-171	-123	-354	-397	-444	-365	-406	-449	
10-14-years	-25	-64	-75	-131	-181	-107	18	77	173	134	153	140	120	139	14	13	98	17	-47	-19	
15-19-years	721	661	914	847	875	850	742	680	1158	1676	1919	1775	1890	2028	1899	1944	1960	1825	1773	1631	
20-24-years	2969	2659	3442	3251	2805	2795	2857	2535	4158	4533	4414	4335	4283	4161	4459	4259	4292	3335	3279	3189	
25-29-years	565	479	673	131	-18	318	972	601	1034	1187	1528	984	1122	1008	812	962	686	-600	-752	-390	
30-34-years	-740	-507	-582	-1093	-914	-616	-170	-329	-188	-217	-103	-490	-428	-512	-854	-1121	-1108	-1572	-1697	-1665	
35-39-years	-505	-275	-339	-570	-626	-359	-55	-136	-199	-179	5	-256	-263	-299	-578	-771	-678	-1070	-1104	-1122	
40-44-years	-70	-30	-159	-234	-318	-253	52	40	72	-37	116	77	81	32	2	-104	-52	-367	-359	-415	
45-49-years	-25	25	-131	-113	-158	-27	90	-28	-2	-49	139	95	153	194	111	-46	78	-91	-65	-194	
50-54-years	-106	-42	-58	-188	-136	-46	40	-23	-70	3	52	3	99	133	80	52	64	-85	-47	-70	
55-59-years	-202	-189	-202	-227	-202	-194	-71	-142	-140	-214	-119	-100	-121	-88	-150	-83	-90	-287	-254	-193	
60-64-years	-246	-216	-223	-252	-242	-204	-144	-138	-172	-269	-93	165	-139	-64	-171	-192	-172	-255	-252	-237	
65-74-years	-140	-159	-184	-212	-183	-136	-38	-63	-32	-14	-64	-88	21	-37	-55	-110	-69	-178	-224	-134	
Total	1206	1400	2154	-166	-604	708	3580	2868	5483	5747	7499	5553	5745	5711	4126	3281	3366	-870	-1459	-1356	
Espoo																					
0-4-years	101	116	147	-5	-164	6	125	25	144	150	228	368	304	101	236	5	28	55	-142	-72	
5-9-years	12	65	90	-38	-113	-66	-12	7	31	107	84	116	122	75	3	-22	4	-18	-159	-103	
10-14-years	46	-8	42	27	-68	0	43	-14	45	73	75	81	118	35	43	9	19	31	-11	-24	
15-19-years	144	87	141	154	86	91	-18	17	58	165	212	262	242	265	378	397	345	402	308	347	
20-24-years	684	696	716	496	515	432	482	460	550	420	836	741	515	614	789	763	566	791	412	502	
25-29-years	625	553	730	437	329	327	539	550	568	530	754	801	739	658	718	511	223	704	332	353	
30-34-years	347	310	327	144	38	208	125	177	195	296	524	422	444	393	471	207	318	406	150	254	
35-39-years	214	122	209	51	-91	-46	-27	89	69	79	114	180	256	187	131	47	74	149	-52	60	
40-44-years	89	6	115	72	-56	18	-8	-34	-17	24	83	80	68	84	28	-88	74	102	7	-23	
45-49-years	8	8	73	-5	-61	-29	-32	-51	-50	-42	13	-18	-55	-23	-67	-11	-36	138	-23	-33	
50-54-years	-5	-4	45	-5	-28	-59	-58	-21	-14	-94	-70	-107	-107	-68	-70	-34	-75	44	-46	-26	
55-59-years	-11	-27	-12	-42	-92	-52	-40	-20	-70	-76	-44	-68	-51	-128	-72	-53	-53	-88	-94	-86	
60-64-years	8	-7	-2	-21	-83	-36	-33	-50	-38	-40	-35	-37	-55	-69	-76	-99	-77	-117	-104	-94	
65-74-years	21	26	0	-25	-59	20	-11	4	-14	-10	19	40	-22	-48	-51	-39	-45	-54	-63	-48	
Total	2283	1943	2621	1210	136	845	1074	1139	1457	1582	2793	2996	2518	2074	2443	1593	1365	2545	515	1007	
Vantaa																					
0-4-years	-85	-41	-90	-228	-347	-85	-58	0	172	-2	-15	48	-59	-97	-67	-216	-148	-97	-80	-80	
5-9-years	-82	-30	-19	-178	-176	-158	-5	26	82	155	15	33	-19	-61	-40	-47	-124	-74	-85	-82	
10-14-years	-90	-29	-158	-38	-158	-38	5	1	92	14	7	13	8	-9	-13	14	-26	19	-61	-26	
15-19-years	66	126	166	130	66	93	105	64	68	153	102	131	172	184	233	162	185	114	85	94	
20-24-years	593	650	726	709	640	780	421	62	-148	186	101	128	304	492	443	459	263	310	124	24	
25-29-years	309	281	468	446	370	595	279	9	81	373	172	317	485	610	647	467	375	378	451	260	
30-34-years	-53	23	108	-13	-169	-6	46	-28	65	131	44	21	57	144	198	-52	-71	92	168	51	
35-39-years	-40	-24	-4	-96	-190	-19	-2	-2	87	28	-59	56	-16	10	-21	-34	-84	52	70	-16	
40-44-years	-54	-15	-6	-116	-115	-10	-12	12	21	71	-21	53	33	-48	-1	28	-81	-11	44	-10	
45-49-years	-47	-24	7	-61	-57	-56	-12	13	92	-46	15	14	-30	-46	-15	19	43	22	63	21	
50-54-years	-8	-1	-74	-18	-65	-8	-10	1	26	-24	-67	-72	-62	-58	-25	-67	-29	-29	106	106	
55-59-years	-9	-2	-66	-69	-53	-49	-65	-27	-12	-84	-42	-63	-88	-91	-124	-124	-97	-70	-54	-189	
60-64-years	-29	-4	-57	-77	-55	-62	-44	-15	12	-25	-10	-25	-33	-61	-121	-75	-125	-94	-86	-73	
65-74-years	-4	-29	-10	-44	-31	-25	-18	2	13	40	23	-22	-7	-15	-60	-41	-65	-20	-12	-77	
Total	467	881	1187	401	-312	951	578	97	379	1401	268	619	956	1011	969	599	-55	577	627	-176	
Kauniainen																					
0-4-years	16	12	8	33	10	26	8	20	4	38	19	53	34	19	16	15	22	29	22	13	
5-9-years	18	8	3	22	17	1	11	30	10	14	7	40	27	12	22	39	-2	12	26	-11	
10-14-years	10	1	12	-3	15	-1	11	20	12	0	15	12	-3	2	14	2	1	-1	9	-17	
15-19-years	9	17	-8	0	-12	-9	0	9	-3	-8	-4	2	-15	9	3	6	4	9	-4	-11	
20-24-years	-32	-25	-1	-4	-21	-34	-37	24	-51	-18	-43	-58	-37	-13	-38	-20	-35	-28	-45	-53	
25-29-years	-22	-17	3	-2	-24	-13	1	5	-50	-22	-44	-1	-24	-30	-47	-25	-2	-17	-40	-26	
30-34-years	32	-13	-10	27	-13	19	-3	38	14	5	15	43	21	-12	-14	-15	16	31	19	-23	
35-39-years	-11	8	0	5	21	-11	27	30	19	33	37	28	12	26	22	9	36	18	13	16	
40-44-years	15	10	18	1	-1	4	6	28	4	-10	29	6	5	24	9	2	-9	12	14	-14	
45-49-years	-3	-5	1	-10	-12	-18	13	-1	-10	-22	-9	-2	-14	-4	-9	-7	3	9	8	-16	
50-54-years	-4	-10	-12	-14	-5	-5	-8	3	-9	-32	-2	-20	-8	-16	-6	-32	-4	-12	-9	-19	
55-59-years	2	-1	-4	-5	-10	-1	-2	-10	-5	-9	-14	-15	-11	-6	-13	-16	-21	-2	-16	-19	
60-64-years	-7	6	-3	-10	-7	0	0	2	-4	-12	-3	0	-13	-7	-3	-19	-4	5	-10	-10	
65-74-years	1	1	9	5	3	-6	5	0	3	-4	6	5	1	-3	-4	-8	4	2	0	0	
Total	24	-8	16	45	-39	-48	32	201	-47	-18	-49	118	-7	-24	-36	-42	-13	21	0	-190	
Metropolitan area (sums of net-migration to Helsinki, Espoo, Vantaa and Kauniainen)																					
1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
0-4-years	-780	-580	-617	-1217	-1392	-985	-485	-65	-245	-324	-268	-312	-516	-800	-934	-1172	-1367	-1241	-1521	-1427	
5-9-years	-250	-232	-166	-552	-687	-604	-159	-33	205	153	171	150	-41	-97	-369	-427	-566	-445	-624	-645	
10-14-years	-59	-100	17	-191	-392	-146	71	88	301	305	260	247	308	180	90	11	109	119	-23	-128	
15-19-years	940	891	1213	1131	995	1025	829	770	1281	1986	2229	2270	2289	2486	2513	2509	2494	2350	2162	2061	
20-24-years	4214	3980	4883	4452	3939	3973	3723	3081	4509	5121	5308	5146	5065	5254	5653	5461	5086	4408	3770	3662	
25-29-years	1477	1296	1874																		

Figure 4.1 and table 4.1 have three major points. First, the total amount of population has constantly increased. Second, the city of Helsinki had a negative net migration in the year 2004 as did the whole metropolitan area: 716 persons moved away. Second, the city of Helsinki attracts young adults between 20 to 29 years of age where as the most negative migration figures are for people between 35 to 44 years. This out migration is reflected to the cities of Espoo and Vantaa that are experiencing rather balanced migration figures in the age groups of 35 to 44. Third, the majority of the group between 30 to 44 year olds move away from the metropolitan area.

A remark regarding these statistics has to be made. These municipality level statistics according to age are available only till 2004. The more general statistics of 2005 (chapter 2.2) showed that the net migration balance was again positive for the metropolitan area. Thus, there are annual fluctuations. However, it seems clear on the long time period of statistics that the most important age groups are moving to more peripheral locations and thus away from the metropolitan area. This is one key challenge for housing planning in all three cities of the metropolitan area.

4.2 Industrial structure

The following chapter provides background regarding the development of industrial sectors in Helsinki metropolitan area. There are two fields of measurement presented: the amount of workplaces and the amount of workforce. These indicators are highly correlated with each other in time. Thus, their development trends are rather similar.

Figures 4.2 and 4.3 demonstrate the development of employment and amounts of jobs in 16 scale segmentation of industries. Groups A and B are representing the primary production, groups C to F industries and G to Q services. Generally the decline in workplaces in primary sector is clear. Also the stagnant development of industry positions is visible. Services are increasing.

Figure 4.2 shows that the highest increase in workplaces has been in the field of real-estate, renting and related business activities. The amount of workplaces has increased almost to double (90%). This reflects the increasing in the housing prices. Also wholesale and retail trade has increased considerably. Within the ten year period the amount of workplaces has increased almost one third (27 %). Declining industries has been manufacturing that experienced growth till 2000 and then the tide changed to decline.

Figure 4.3 on the other hand shows the amount of employed workforce with the same segmentation. The general trends are the same with workplace development. For example, the growth in employed workforce in real-estate, renting and supportive business has been 87% from 1993 to 2003. The earlier figures show the decline of employment in all industries due to the severe recession of the early years of 1990s.

Based on the results it seems that the 10-year development has strongly supported some industries. None of the presented industries has radically collapsed. Since the year 2000 the most considerable decline has been experienced in the field of manufacturing. However, it should be noticed that also manufacturing employment is higher in 2003 than it was in 1993. The figure 4.2 interestingly shows the economic depression of the 1990s. Compared to early figure of 1990–1992 only few industries have reached the same or higher level. For example, the second largest segment of “wholesale and retail trade” has not reached the initial level of 1990.

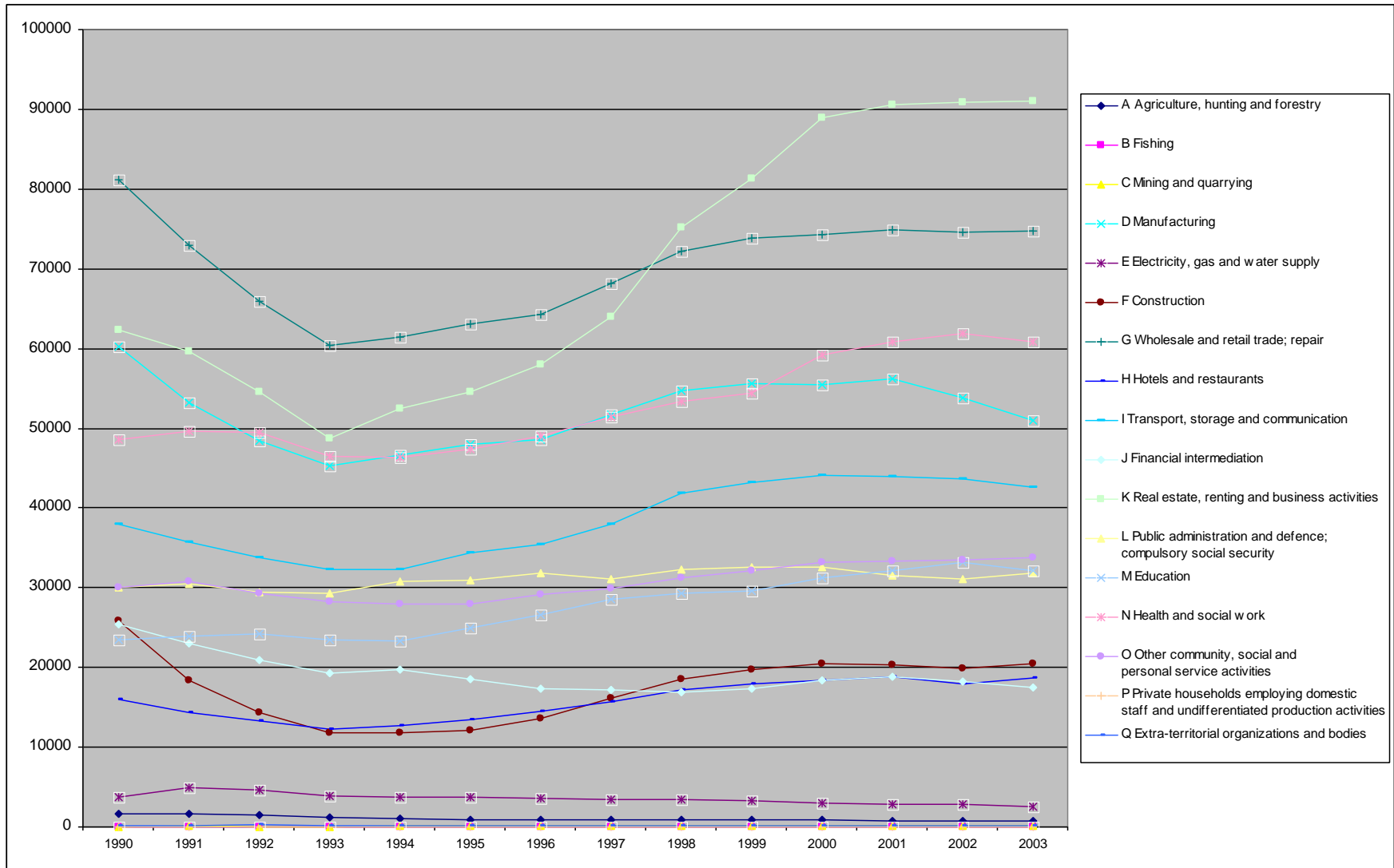


Figure 4.2. Workplaces in Helsinki metropolitan area 1990 to 2003 according to industries. Source Statistics Finland.

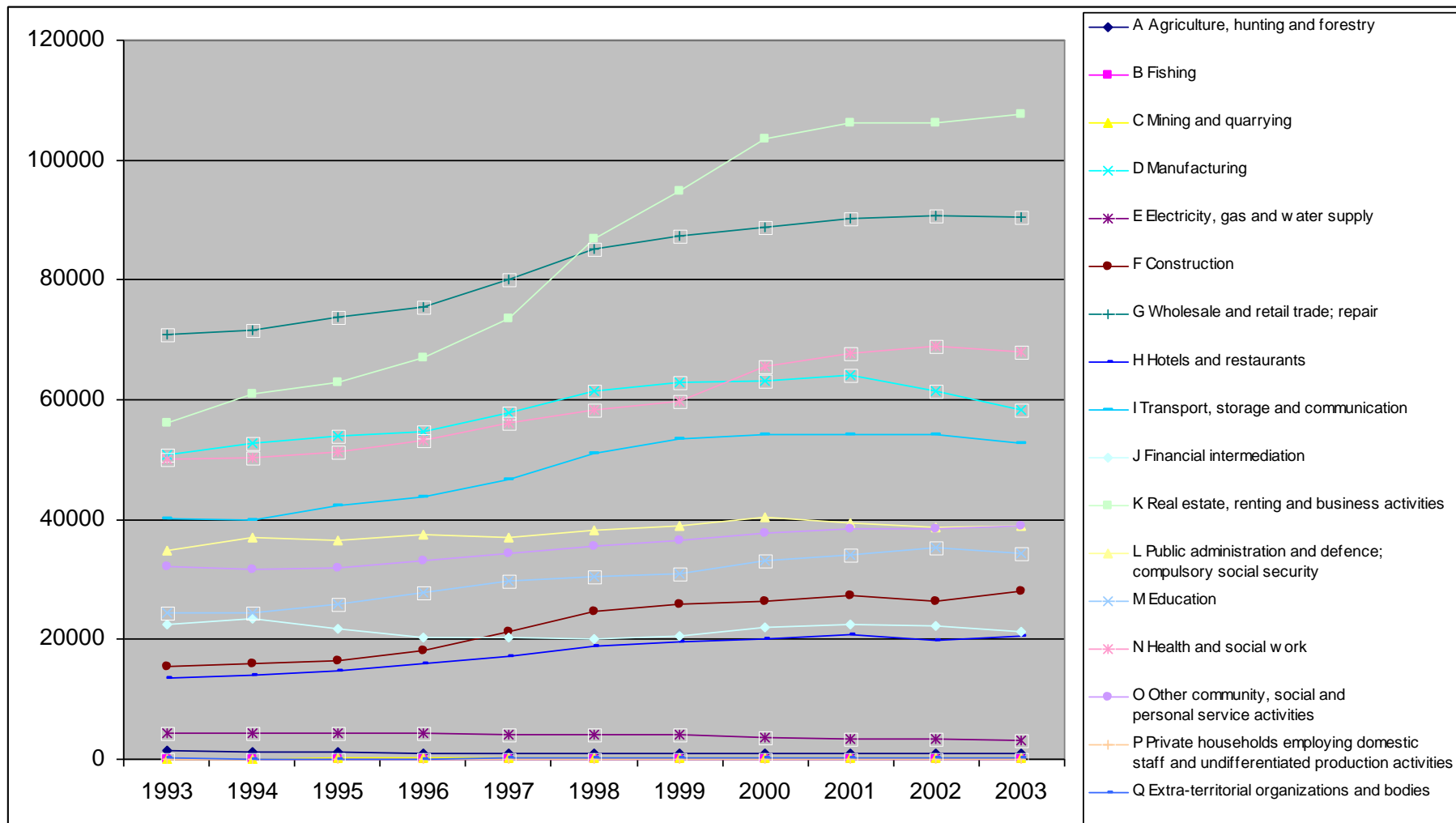


Figure 4.3. Employed workforce in Helsinki metropolitan area 1990 to 2003. Source Statistics Finland.

The general interpretation of figures 4.2 and 4.3 is that the service sector has increased where as the primary and industrial sectors have experienced stagnant or declining development. The employment and workforce figures however tell little about the significance of the sectors to economy, thus the levels of profit and business success. This should be remembered by looking back to figure 1.2 showing that the great majority of the value-adding comes from “industries” rather than services.

4.3 Tolerance and diversity

Finland has a low amount of immigrants if compared to other Western European countries. Helsinki is by far the most international centre of Finland. In Helsinki metropolitan area the amount of foreigners has increased steadily since 1995. Figure 4.4 shows the growth. The number of foreign inhabitants in the metropolitan area has almost doubled in the ten year period.

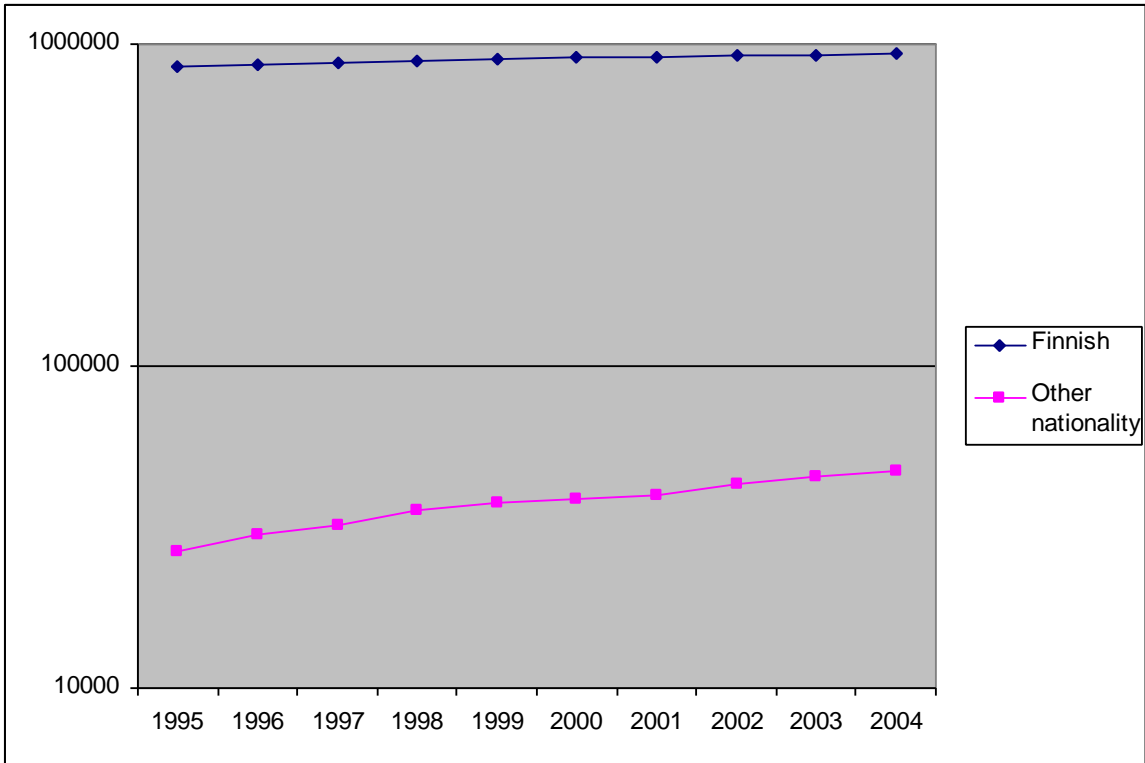


Figure 4.4. The development of population by nationality: Finnish and other nationalities. The scale is logarithmic. Souce: Statistics Finland

Figure 4.5 looks at the migration development in time according to the migrant nationalities. The amount of immigrants from Baltic countries and Russia has experienced the strongest growth. The amount of immigrants from these countries has grown 2.5 times from the figure of the 1995. In general migration from all parts of the world has increased to Helsinki metropolitan area during the ten year period. There is only on decline in the amount of African immigrants in the years 1999–2001. However, the African line had its greatest value in the year 2004.

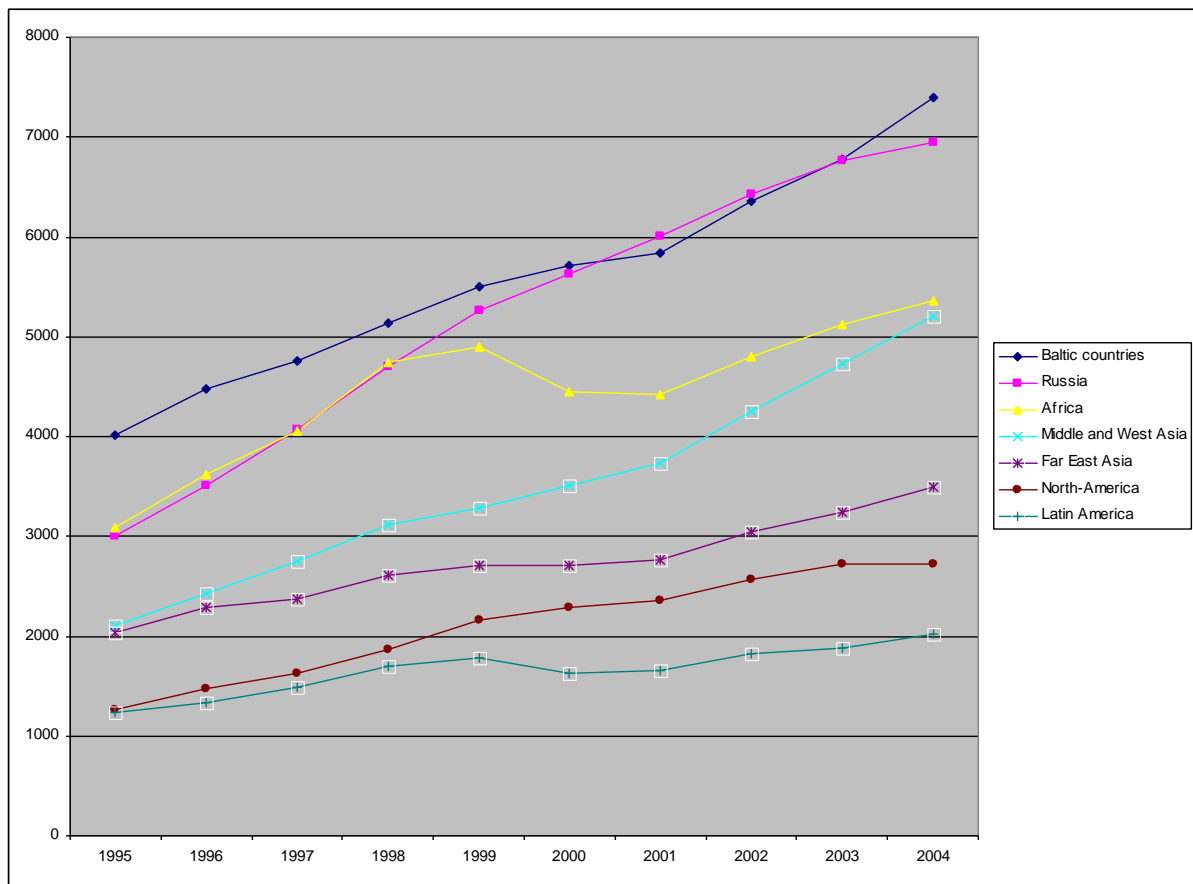


Figure 4.5. The development of population by aggregate units (continents and Baltic countries). Source: Statistics Finland

Based on the immigration levels it can be argued that the Finnish cultural diversity has evidently increased. It is also worthy to remember that approximately 50% of incoming migrants are staying in the Helsinki region (Uusimaa).

Migration statistics are problematic. They do not separate well those persons who are second generation migrants and thus have the Finnish nationality. Also the measurement through native language is problematic because it does not tell anything about the individual's skill to talk other languages. In several cases, these classifications are also irrelevant for the study questions. Migration related phenomena are more efficiently reached by interview and survey data rather than general statistics.

Finally it is worthy to look at cultural diversity in Finland benchmarked with other parts of Europe. ESPON 1.3.3. project has provided a detailed territorial analysis of cultural diversity and professions in Europe. The ESPON analysis shows that Finland in general has a low level of international migrants. The only concentration points are located to Helsinki region and South-West Finland. Compared to other ACRE partners, Helsinki seems to have the lowest level of international migrants, the focus group of work package 7.

4.4 Education and foundations of knowledge

Helsinki region and metropolitan area have higher levels of educated people than other parts of Finland. In general, the Finnish education system is divided into three categories. First phase is the elementary school (9 years) that is finished in the age of 15. People who gain additional education above the elementary school are persons that are defined in statistics as “persons with education”. Figure 4.6 shows age group segmented proportions of these people having additional education in 2005. During that year 68% of all adults living in the Helsinki region had an education.

A general trend in figure 4.6 is that young age groups till the age of 40 to 45 have high education levels and older groups are considerably less educated. However, the proportion of people having a university or polytechnic education starts to decline faster only after the age of 55. It is clear, however, that the “educational divide” goes in the age group of 40 to 45. Compared with other urban populations in Europe, residents of Helsinki have more often a tertiary education and less often a secondary education.

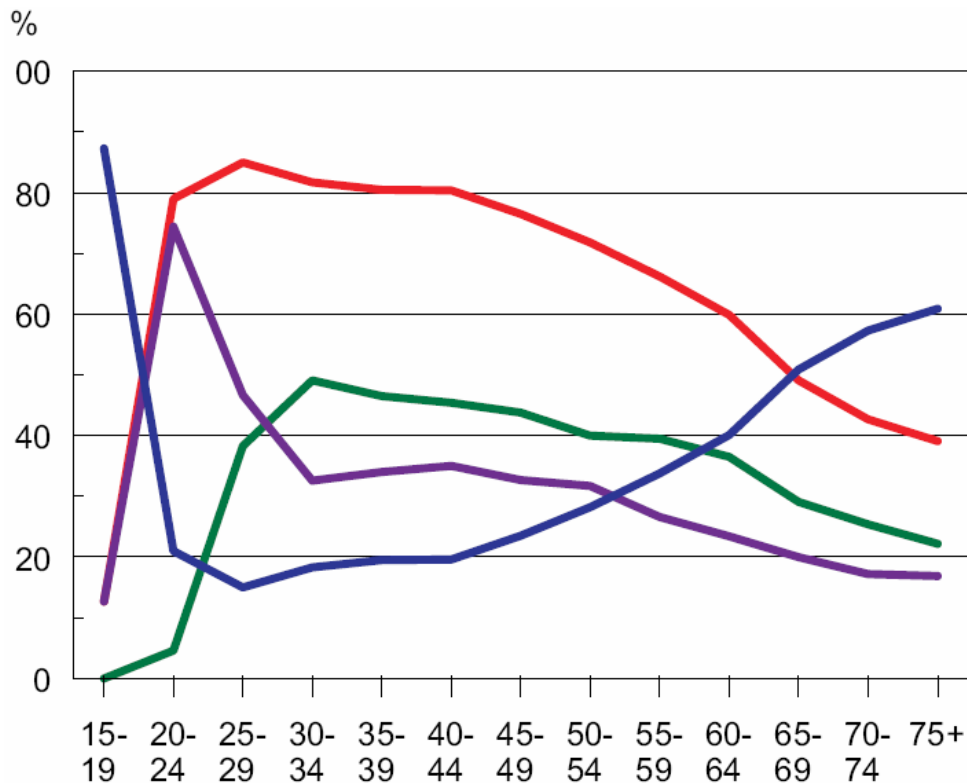


Figure 4.6. Educational level of citizens of Helsinki. The red line is “total amount of persons with a degree”, the blue line is “only elementary education”, the green line is “university or polytechnic education” and the violet line is “secondary education” Source: City of Helsinki, Urban Facts 2006c: 13

The results of figure 4.6 also show that persons with only elementary education have, to a large extent, moved away from the labour market. The current age that people retire is targeted to be 63 years. In the following ten years the education levels of people in the working age are considerably

higher than they have been earlier. This is evidently one sign of the development of “knowledge” society.

The development of increasing educational trend is demonstrated in table 4.2. Table shows also the increasing amount of persons over 15 years of age. During the seven year period the amount of educated people has increased some four percentages. The increase has been slightly higher in the highest education group (universities and polytechnics).

Table 4.2. The development of education levels 1998–2004. Source: City of Helsinki, Urban Facts 2006c: 12

Year	Persons over 15 years of age	% of persons with a degree (secondary or higher)	% with a university or polytechnic degree	% with a secondary degree	% with only elementary education	Educational level measurement
1998	462 329	64,4	31,8	32,5	35,6	339
1999	467 124	65,2	32,4	32,8	34,2	345
2000	471 692	66	32,8	33,2	34	351
2001	476 082	66,7	33,3	33,4	33,3	357
2002	476 570	67,3	33,6	33,7	32,7	361
2003	477 008	67,7	33,9	33,8	32,3	366
2004	477 818	68,2	34,2	34	31,8	371

Education is tightly connected to general scheme of knowledge society creation as identified in chapter 1.5. Therefore the amount of university students and graduates is important. This is also acknowledged in ACRE work package 5 in which graduates with tertiary education are surveyed. Figure 4.7 shows the development of university students in the universities of Helsinki metropolitan area.

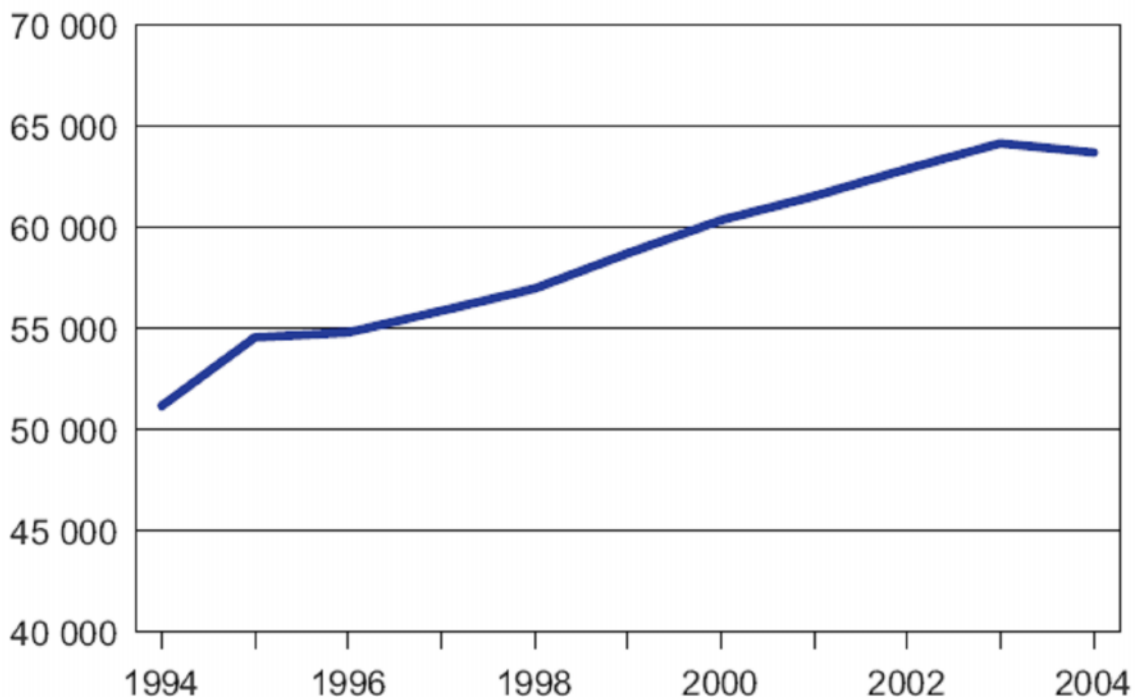


Figure 4.7. The student amounts in the universities located in Helsinki metropolitan area 1994–2004 Source: City of Helsinki, Urban Facts 2006c: 61

There were approximately 64 000 students at the universities in the Helsinki area in the year 2004. That equals some 37% of all university students in Finland. University of Helsinki is the largest educator. In the year 2006 it had approximately 38 000 students in total including undergraduates and post-graduate students. Figure 4.8 also shows that within the ten year period the number of students has increased some 25 percentages. Considerable growth figures indicate the policy decisions aiming to increase the number of highly educated people in Finland.

From the total numbers of education it is beneficial to look at the different fields of science and their proportional changes. These results have been presented in table 4.3 showing the changes in the Helsinki metropolitan area and Finland as a reference.

Table 4.3. The proportional change of student amounts in different fields of science 1998–2004.

Field of science	Helsinki metropolitan area % change 1998-2004	Finland % change 1998-2004
TOTAL	4,2	5,2
Theology	13,1	42,1
Humanistic	-12	-4,2
Art and design	14,6	0
Music	-16,1	-16,1
Theatre and dance	0	31,7
Educational science	4,6	-6,2
Physical education science	-	8,8
Social science	35	21,3
Psychology	13,3	-0,5
Health science	-	7,6
Law	-7,4	-1,2
Business and administration	18,9	21,6
Natural science	9,5	8
Agriculture and forestry	15,9	15,8
Technical science	-11,9	-7
Medicine	14,3	37,7
Dentistry	33,3	64,7
Veterinary medicine	12,5	12,5
Pharmacy	54,7	43,3
Fine (visual) arts	-12,5	-12,5

The interpretations from table 4.3 are rather straightforward. First, the relative change of student amounts shows that fine visual arts, music, humanistic sciences and technical sciences have restricted their student intakes. On the other side pharmacy, social sciences and dentistry have increased their intakes the most. There are relatively large gaps between the national figures and Helsinki metropolitan area figures. The changes in student amounts include issues related to labour force needs and to the university resources. All in all, the overall increase of students in all fields is 4.2% in the Helsinki metropolitan area. The national figure is one percentage higher. However, as visible in table 4.3 the differences among disciplines are great.

4.5 Housing markets

Housing in Helsinki metropolitan area, and in the city of Helsinki in particular, is considerably more expensive than in other parts of Finland. The latest housing prices area as follows (city of Helsinki, Urban Facts 2006b):

- Average price for used home (per square meter.) 3 041 €/m²
- Average price for apartment building 3 098 €/m²
- Average price for attached houses 2 781 €/m²
- Average increase from the last quarter 1,7 %
- Housing price index (base 2000=100) 145.6
- Housing price index (base 1983=100) 341.3
- Average prices for different regions in Helsinki

As the presented list shows, the housing price index in Helsinki has increased 45.6% and the corresponding figure for the metropolitan area is 43.1%. Compared to the year 1983 prices have experienced a nominal increase of 340%. However, if the average income level is contrasted to current prices the growth has not been so dramatic. The comparison of different cities, Helsinki metropolitan area and Finland average is presented in the figure 4.8.

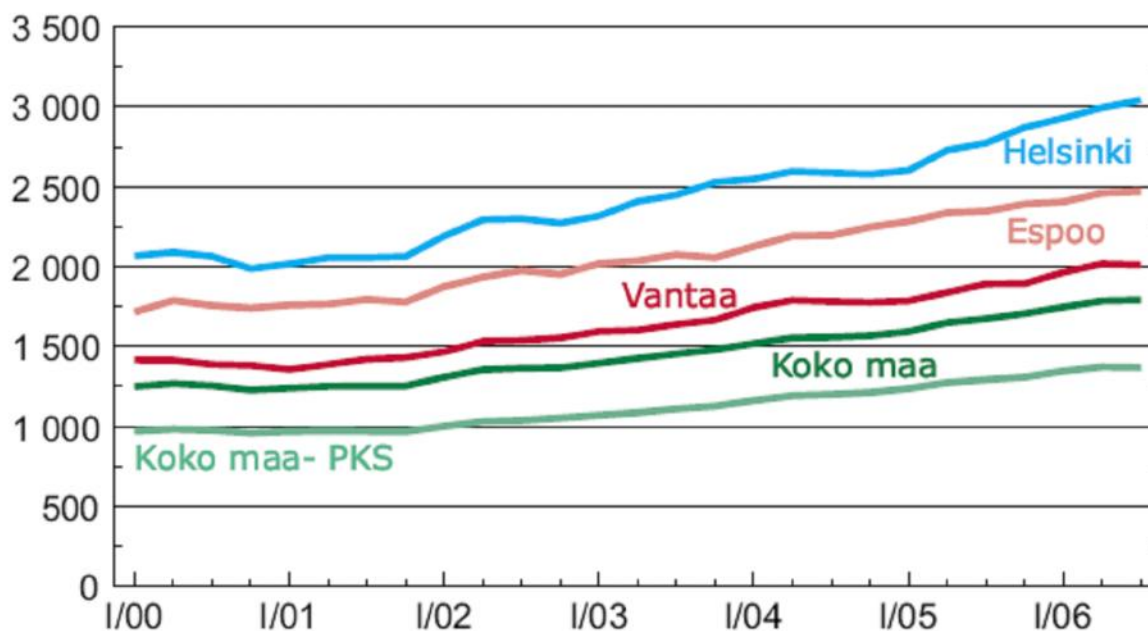


Figure 4.8. The development of housing prices in Helsinki, Espoo and Vantaa with benchmarks of national average (koko maa) and national average without Helsinki metropolitan area (koko maa – PKS) quarterly in the years 2000–2006 Source: City of Helsinki, Urban Facts 2006b: 3

Figure 4.8 shows that the city of Helsinki leads the way and the other metropolitan municipalities tend to follow. An important notion is that the overall national average for housing prices is over a half less per square meter than in Helsinki. In addition, Helsinki is not a homogenous surface. Thus, there are great variations according to the residential area. The city of Helsinki divides its housing locations into four categories. The latest average prices (December 2006) for each of these categories are:

- Helsinki I 4 303 €/m²
- Helsinki II 3 188 €/m²
- Helsinki III 2 472 €/m²
- Helsinki IV 2 211 €/m²

These figures are approximately 50 to 75 percentages higher compared to average prices in other cities in Finland. It is also essential to recognise variations inside Helsinki. It is up to (almost) 100% between the regions I and IV. In the European context housing prices are on the middle level among EU-15 metropolises. The housing prices have increased constantly since the 1993 after the severe economic recession. In order to demonstrate the growth speed we present the development from the year 2000 to 2005 with quarterly division in table 4.4.

Table 4.4. Housing prices in Helsinki, Helsinki metropolitan area and Finland yearly from 2000 to 2006. Source: city of Helsinki, Urban Facts 2006b: 2

Year and quarter	Helsinki euros/sqm	Index, year 2000=100	Helsinki metropolitan area	Whole country
2000	2052	100	100	100
2001	2047	99,5	99,6	99,5
2002	2264	109,7	109,2	106,8
2003	2425	116,8	116,1	113,6
2004	2576	123,8	123,6	121,9
2005	2743	131,6	130,7	129,3

Table 4.4 provides also indexes for the housing price development in metropolitan area and the whole country. The following interpretations can be made. First, the growth has been more intense in the city of Helsinki. Prices in the metropolitan area are some 1 to 2 index points behind whereas the indexes for the whole country are 5 to 6 points behind the capital. Thus, the prices are growing faster in the capital city compared to these other regional units. Second, the increase phase has been relatively steady during the 5-year period. The development of housing prices in the metropolitan area (Helsinki, Espoo and Vantaa), the whole Finland and Finland without the metropolitan area has been presented in figure 4.9. Third, the absolute increase in price has been over 30% in the 5 year period. This means annual revenue of some 7% for real-estate investors. The figure is high if compared e.g. with the general indexes of stock markets. The growth of HEX-index (Helsinki Stock Exchange) during the same period is almost 0. However, it is worthy to remember that the peak-level of the HEX was in the early 2000 when the index had a value of 18 277. This figure is a double if compared 9 500 level of today.

There are also other statistics available on the condition of housing in Helsinki metropolitan area. In table 4.5 are three regional categories contrasted with the household sizes, apartment ownership and living space.

Table 4.5. Housing prices in Helsinki, Helsinki metropolitan area and Finland yearly and quarterly from 2000 to 2006. Source: YTV 2006: 22

	Helsinki		
	metropolitan area	Helsinki region	Finland
Number of houses	505 760	630 476	2 634 728
Apartment buildings (%)	75,4	67,6	44,1
Small houses (%)	23,3	31,1	53,5
Privately owned houses (%)	46,2	49,9	57,5
Rented houses (%)	43,5	40,1	32
Average household size (sqm)	67,6	71,1	76,8
Average size (persons)	2	2,1	2,1
Families with children (%)	23,4	25,2	39,2
Single person households (%)	43,2	40,9	39,2
Living space per person (sqm)	34	34,5	36,7

Table 4.5 clearly show that people who are living in the Helsinki metropolitan region have smaller living space and the average household size is smaller than in the rest of the country. The contrast in the figures would be even stronger if the other Helsinki region area would not include the metropolitan area. However, the statistics show that approximately half of the houses are privately owned and the other half rented. The role of city organisations in as providers of rental housing remains important. The provision of social housing and mixed planning are key dimensions in the housing policy.

The majority of apartments in the city of Helsinki are apartment buildings. Table 4.6 shows the regional comparison between municipalities in Helsinki region and their housing types.

Table 4.6. Percentages of small houses and apartment buildings in selected municipalities located in Helsinki region. Source: City of Helsinki, Urban Facts

Municipality	Small houses %	Apartment buildings %	Other housing type %
Kirkkonummi	68,3	30,7	1,1
Kauniainen	55,5	42,9	1,6
Järvenpää	52,9	45,7	1,4
Hyvinkää	44,5	54,1	1,4
Espoo	42,4	56,4	1,3
Kerava	38,9	59,7	1,4
Vantaa	37,5	61,8	0,6
Helsinki	12,8	85,7	1,5

The housing structure is one factor in explaining that the population growth and migration within Helsinki metropolitan area is stronger on the fringe rather than on the core (table 4.1). The municipalities close to each other have clear differences in their housing structures as shown on the table 4.6. The situation has not changed if the newly build houses are considered. In the year 2001

only 15% of new houses were small or attached houses in Helsinki (Vaattovaara & Kortteinen 2005: 13–14). This is one of the key issues in the considerations regarding housing policies in Helsinki metropolitan area.

4.6 Chapter conclusions

The aim of this chapter was to provide an extensive description on several aspects on Helsinki metropolitan area. There are several main points to be addressed. First, the population of the metropolitan area increases but it is mainly due to international migration and natural population growth. The internal migration patterns show that the most important working age population moves away from the core city of Helsinki to more remote locations with cheaper and more spacious houses.

Second, the industrial segments have recovered from the 1990s recession. The most important growth fields in the terms of employment vacancies and positions are on the service sector. However, their value-adding to GDP is not as much as their relative importance as employers.

Third, the international migration to Finland and to Helsinki metropolitan area has increased all the time. There are, however, statistical problems related to the reasons of migration. Therefore, interpretations regarding “work-oriented” migration are not viable with the available general statistics.

Fourth, Finnish people have a high level of education particularly in the age groups of 35-years and under. The high education level is in line with the national education strategy that has an aim of 70% of an age cohort should have a tertiary education. Helsinki metropolitan area has more educated population than the rest of the country.

Fifth, the housing markets in Helsinki and surrounding area are different from the rest of the country. Helsinki has relatively more apartment houses, household sizes are smaller and the living space per person is smaller than elsewhere. Housing prices have also constantly increased since the 1990s and the growth rate from 2000 to 2006 has been over 40% both in the city of Helsinki and in the Helsinki metropolitan area.

5 State of creative industries and the knowledge economy

5.1 Employment in knowledge and information economy

An essential issue is to recognise the industries and occupations relevant for the “informational” or “knowledge based” development. In the following chapters there are both official statistical classification of Statistics Finland and a custom statistics of the variables defined in the first ACRE meeting. In table 5.1 the official classification is used to present the development of “information sector” employment between the years 1998 to 2003.

Table 5.1. Employment in broadly defined “information sector” 1998 to 2003 in Helsinki metropolitan area. Source: Statistics Finland

Employment in "information sector" 1998-2003

	1998	1999	2000	2001	2002	2003
All sectors together	523208	544674	566485	575659	573911	570465
Information sector, comprehensive definition (NI 2002)	87131	94053	101967	104752	101210	98202
Manufacturing	11817	13249	13801	15619	14795	14210
30 Computers, calculators etc.	703	687	98	90	113	96
313 Electronic cables	198	235	128	179	142	136
32 Radio, TV and telecom equipment	9409	10705	11797	13081	12360	11531
332,333 Process management and gauging equipment	1507	1622	1778	2269	2180	2447
Services production	29305	33703	39675	41754	39540	37937
51432 Entertainment electronics wholesale	667	561	581	634	579	676
51840 Computer hardware and software wholesale	4694	4696	4874	5174	4561	3989
51862 Telecom equipment wholesale	1632	2003	1802	1757	1504	1705
642 Telecommunications	7379	8479	10001	10056	9773	8749
72 Data processing services	14889	17912	22363	24089	23087	22779
Content production (comprehensive definition)	46009	47101	48491	47379	46875	46055
221 Publishing	7453	7722	7659	7609	7597	7565
222 Graphic production	5292	5198	4640	4566	4215	3992
223 Reproduction of recordings	155	168	155	140	145	147
71401 Video and DVD rental	129	87	91	198	265	261
73 Research and development	8456	8630	8981	8090	8415	8488
7413 Market and opinion polls	1234	1499	1590	1684	1473	1290
7414 Business consultancies	4341	4736	5209	5242	5273	5169
744 Advertisement services	4146	4328	4752	4648	4100	4217
7485 Office and translation services	1784	1780	1776	1571	1778	1671
921 Film- och video production	1291	1236	1258	1273	1392	1331
922 Production of radio and TV broadcasts	5303	5277	5503	5442	5235	4941
923 Other services in arts&culture and entertainment	3391	3480	3574	3595	3601	3722
924 News agencies	317	349	369	333	320	308
925 Libraries, archives, museums etc.	2717	2611	2934	2988	3066	2953

The statistics presented in table 5.1 are commonly referred as “the official information society statistics” in Finland. They do, however, have several linkages to the statistics used in the ACRE. Table 5.1 shows also clearly that the employment development has been rather stagnant. The hot years of the 2000 is visible and the aftermath of the dot com stock devaluation also. The figures also imply that competition is forcing the enterprises to cut down their costs and modify their personnel structure more streamlined. Thus fewer people do more. Considering the annual revenues of ICT sector this seems evident.

5.2 Creative industries

The latest data from Helsinki metropolitan area is from the year 2003. We were able to get the following data from the Urban Facts according to the occupation classification provided in the Amsterdam meeting in October 2006. The classification in table 5.2 follows the SIC-code table. Our time-series includes the years 1998–2003.

Table 5.2. Employment in the creative industries defined by the ACRE meeting (SIC-codes) in Helsinki 1998 to 2003. Source: City of Helsinki, Urban Facts

	2003		2002		2001	
	Helsinki	Metropolitan	Helsinki	Metropolitan	Helsinki	Metropolitan
744 Advertising	3851	4217	3754	4100	4182	4648
74203 Architectural services	1242	1609	1255	1581	1238	1568
52499 Retail sale in specialised stores/non specified	66	116	65	118	59	92
52509 Retail of secondhand goods	174	246	143	211	149	200
6 Designer fashion - not defined						
74871 Industrial art and design	402	493	388	450	285	336
2232 Reproduction of video recording	41	81	41	76	107	140
9211 Motion picture and video production	880	928	933	990	793	833
9212 Motion picture and video distribution	114	155	141	145	167	199
9213 Motion picture projection	212	248	170	257	200	241
74811+74811 Photographic activities	301	334	328	365	282	320
22140 Publishing of sound recordings	252	266	223	243	251	304
2231 Reproduction of sound recordings	10	53	44	56	47	57
9231 Artistic and literature creation	2699	2973	2655	2907	2611	2943
9232 Operation of arts facilities	347	386	317	362	307	314
92340 Other entertainment activities	158	250	146	212	163	210
92720 Other recreational activities	53	117	43	119	37	103
22110 Publishing of books	1620	1771	1602	1740	1513	1710
22120 Publishing of newspapers	1895	2165	1912	2171	2207	2506
22130 Publishing of journals and periodicals	2864	3070	2934	3156	2655	2770
22150 Other publishing	108	293	124	287	145	319
92400 News agency activities	303	308	320	320	333	333
22330 Reproduction of computer media	12	13	13	13	11	11
72210 Software publishing	48	258	16	204	9716	15113
72220 Other software consultancy and supply	8887	14091	9325	14557		
92200 Radio and television activities	4863	4941	5188	5235	5429	5440

	2000		1999		1998	
	Helsinki	Metropolitan	Helsinki	Metropolitan	Helsinki	Metropolitan
744 Advertising	4356	4752	3957	4328	3770	4146
74203 Architectural services	1193	1541	1069	1394	1008	1301
52499 Retail sale in specialised stores/non specified	36	146	49	78	53	86
52509 Retail of secondhand goods	147	191	140	193	114	148
6 Designer fashion - not defined		0		0		0
74871 Industrial art and design	297	345	265	309	208	245
2232 Reproduction of video recording	58	84	43	74	34	94
9211 Motion picture and video production	823	874	837	874	917	944
9212 Motion picture and video distribution	137	200	110	148	109	198
9213 Motion picture projection	156	184	174	214	129	149
74811+74811 Photographic activities	310	346	329	361	360	386
22140 Publishing of sound recordings	250	275	282	298	290	338
2231 Reproduction of sound recordings	44	58	57	66	42	52
9231 Artistic and literature creation	2632	2949	2540	2880	2471	2818
9232 Operation of arts facilities	290	309	290	311	275	280
92340 Other entertainment activities	149	221	106	177	151	210
92720 Other recreational activities	37	99	69	131	45	97
22110 Publishing of books	1508	1761	1567	1832	1536	1708
22120 Publishing of newspapers	2204	2545	2216	2496	2232	2600
22130 Publishing of journals and periodicals	2382	2718	2630	2770	2373	2509
22150 Other publishing	176	359	131	320	113	298
92400 News agency activities	369	369	346	349	315	317
22330 Reproduction of computer media	13	13	21	21	9	9
72210 Software publishing	7723	13584	5334	10547	4345	8749
72220 Other software consultancy and supply		0		0		0
92200 Radio and television activities	5483	5503	5169	5277	5255	5303

A general interpretation can be made from the table 5.2 and that is that the amounts of occupations in these selected industries have not been growing. The statistical categories where changed 2001 in the case of software consultancy and supply that was changed to software publishing. This has been the most important employer but the employment levels dropped almost 50% from the peak year of 2001 when the “dot com” bubble burst. The table 5.3 also shows that majority of the suggested indicators (industries) are small scale employers in Finland.

An important feature that shows from the creative industry statistics of table 5.2 is that in some field such as advertising the importance of the city of Helsinki is great compared to the whole figure of metropolitan area. There are clear spatial differences between different fields (also Suokas 2001). For example, software consultancy and supply is more evenly distributed among the metropolitan area than is e.g. publishing of books that is the most concentrated field.

Finally, the stagnant growth indicates the efficiency needs of production in global competition. Thus, there is a need to do more products and profits with fewer employees. This tendency shows also in the case of the most important industry field of software production and consulting.

5.3 Interview statements about creativity in Helsinki

The statistical facts can be supported by LOP person interviews that have already been conducted by earlier project proceeding ACRE. The interview work by Bontje (2006) includes a total of ten interviews. In the following three interviews are discussed on the basis of the draft report. These interviewed persons are LOP references in Helsinki.

Asta Manninen, the director of the Helsinki Urban Facts department states that the Helsinki has a good position in knowledge and creativity based economy and its development. She points out the challenges of internationalisation and education system. According to Manninen, Helsinki producers aim to international markets. She contextualises this to the needs of a small country with limited resources. Manninen highlights the importance of design and quality. The emergence of “knowledge intensive industries” is a relatively new issue and Urban facts do not yet have extensive statistics on these issue. In practice the presented table 5.2 includes the current data available. Manninen also points out that politicians and city officials have understood the importance of cultural activity in the creation of attractive city environment. She adds that international schools are also one tool to get more work-motivated migration to Finland and to Helsinki region. Manninen states that the greatest challenge is in the attraction of foreign investors to Finland.

The second reviewed interview is from the economic development director of the city of Helsinki, Eero Holstila, who assesses the strengths and weaknesses of the Helsinki metropolitan. He sees the long term development of the Helsinki region good. He addresses the R&D system of Finland and regards it as a well functioning. Holstila, however, also brings up the small populations of Finland and Helsinki metropolitan area. Holstila approximates that 50% of Finnish R&D activities are done in the metropolitan area. He also thinks that there are too many little university institutions. A cure to that would be to combine and priorities the universities. Holstila also calls up for tighter co-operation between

organisations. Holstila also reminds that the European level perspective is not enough and the benchmarking should be made to global scale and to think of nations of Asia and America. Regarding the role ICT industry in the Helsinki region Holstila has a clear opinion also shown by statistics. ICT industry is the major creative employer in Helsinki. This should be considered in the future WPs of ACRE particularly concerning the selected interviews. Finally Holstila thinks that the ICT driven growth has been strong but as a downside Helsinki region might be too dependent on it.

The third and final interview presented here is from Nyrki Tuominen, the former head of business development of the city of Helsinki states the following challenges. Tuominen thinks that bureaucracy is not a big problem in Finland compared to other European countries. He also brings up the low level of corruption and transparency of governance in Finnish society. Tuominen states that Helsinki is performing well in international benchmark studies on creativity and innovation. However, he does not see Helsinki as a creative city. He thinks that Helsinki is not able to attract key-persons to live in there like, for example, Amsterdam. Helsinki is also regarded to be too remotely located from the other European nodes. Tuominen thinks that Finland and Helsinki region should aim to attract companies rather than individuals. He also recalls the presence of key ICT players that are located in Helsinki including Nokia, HP, GE, Siemens and IBM.

The presented interpretations of the interviews bring up some general facts about the specific characteristic of Helsinki. First, the physical geography and proximity to large European metropolises located in West and Central Europe. Second, demographic changes and rapid change in the educational levels play an important role. Third, the national innovation system is an influential part in the creation of new cross-disciplinary innovations. In the next chapter key policy tools to enhance national and regional innovation, creativity and knowledge society with regional and urban focus are presented.

5.4 Chapter conclusions

This chapter provided the essential information on creative knowledge occupations according to the list accepted in the Amsterdam ACRE meeting. The central conclusion to be made on the basis of the obtained empirical data is that there is a great diversity in the employment figures. Several of the used classes included less than 500 employees. However, there are three to four industrial segments that employ the largest amounts of people. Therefore, they should be considered as the most important creative industries in this classification.

Regionally, there are also great differences in the location patterns (city of Helsinki or metropolitan area) depending on industry. The software production and consultancy is mostly wide spread across this two dimensional spatial category but majority of other industries are over 90–95% located in the vicinity of the city of Helsinki. This fact should be considered in the sampling process of future work packages.

LOP-members interviewed in the University of Amsterdam study acknowledged the constant need for change in global market conditions. They also stressed the importance of trans-organisational co-operation. Interviewed also had a mainly a business oriented view of developing the urban condition of Helsinki metropolitan area.

6 Policies improving competitiveness

6.1 National strategies

The Finnish policy guidance is based on the identified four sets of policies: the science policy, the technology policy, the information society policy and the innovation policy. These policy fields are overlapping and they are mainly managed by segmented ministries or coalitions of actors. The description of these national policies is in chapter 1.5.

In general, the challenge for national strategies and policies is to balance between the global needs (Helsinki area and global competition) and regional needs (dispersed and diversified regional policy). An indication to this problematic can be obtained from the funding decision made by TEKES that is the most important public sector funding organisation in the national innovation system. In total 43.3% of all TEKES funding in the year 2006 was targeted to Helsinki region. There were 19 regions that obtained funding from TEKES. The proportion of Helsinki region is on its own class. In addition, over a half of TEKES research funding for public organisations (universities and research institutions) is targeted either to Helsinki University of Technology or University of Helsinki (TEKES 2007).

6.2 Local strategies and programmes

In the following we present a general description of the policies and actions aiming to increase the competitiveness in the Helsinki region and metropolitan area. An important actor in this respect is Culminatum Ltd. that is a development organisation owned by the three major cities of the metropolitan area (Helsinki, Espoo and Vantaa), Uusimaa Region Council, universities and other public and private sector organisations. Culminatum is an important organisation in the execution of the local development programmes. It manages several of the projects and action plans that are presented in the following.

The most convenient way to start the description of the development programmes taking place in the Helsinki region and metropolitan area is to look at the urban programme for Helsinki metropolitan area (in detail www.pkskaupunkiohjelma.fi). This programme is currently taking place 2005–2007 and it will be continued after the current period. It is a regional compilation of development projects designated to actualise the “major city” policies. The programme is a sequel to the urban programme *Osaaminen ja Osallisuus* (Competence and Coherence) implemented in the metropolitan area during the years 2002–2004 (see chapter 1.4). The general scheme for the earlier programme is presented in figure 6.1 to demonstrate the key issues continued in the current programme.

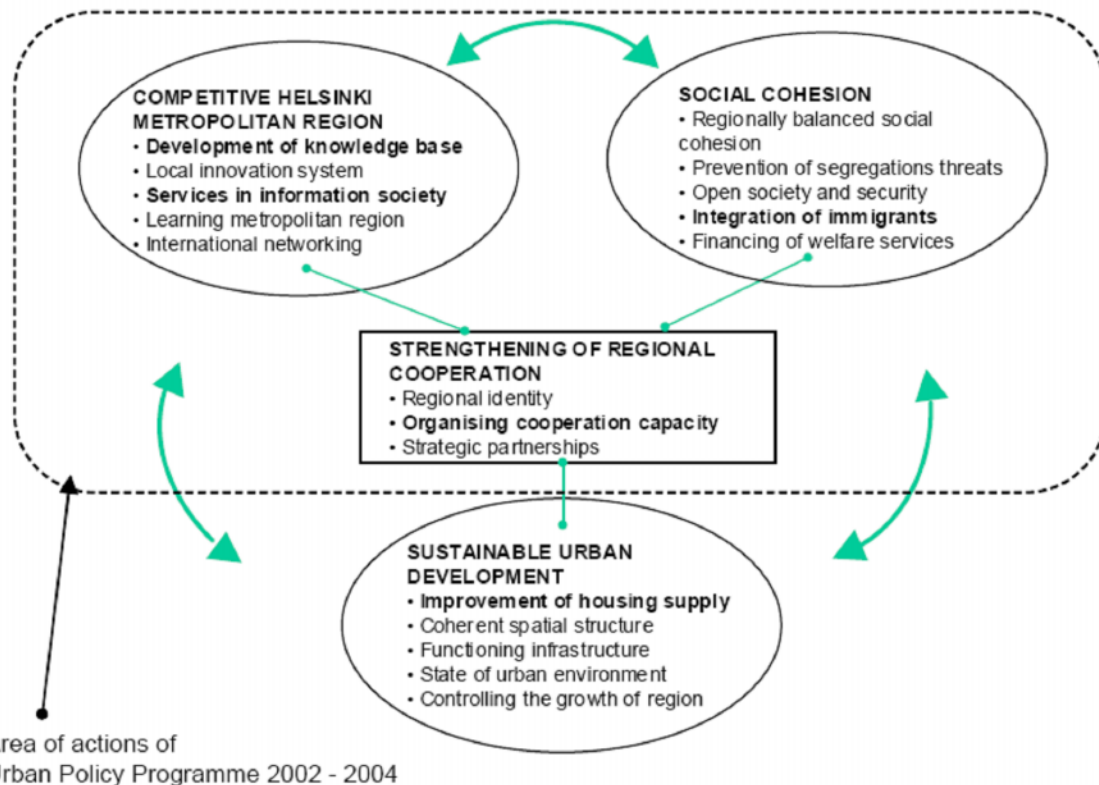


Figure 6.1 Scheme for Urban Programme 2002 – 2004. Source: Karvinen 2005:7; City of Helsinki, Urban Facts

In general the old and current programmes follow the similar structure and funding principles. Government and university co-operation is strongly present in the urban development actions. A concrete example of this is the creation of “urban professors” network in the universities of Helsinki metropolitan area. Considering the funding of the Urban Programme, the Ministry of the Interior supports the implementation of the programme by covering some 50% of the public funding.

The goal of the 2005–2007-programme is to improve the international competitiveness of the Helsinki region. This includes the development of metropolitan readiness to function as a world-class centre for businesses and international organisations. The tools to achieve this include further improving the provision and opportunities of housing, education, work and enterprise. The programme helps to carry out current strategies and programmes for the cities of the Helsinki metropolitan area and the Uusimaa Regional Council. The Urban Programme functions regionally as a developer, launcher and enabler of successful regional multi-actor cooperation.

The urban programme includes 15 projects under the three main lines of action. Considering the finance of the programme, the basic financing is provided by the cities of the metropolitan area (50%) and by the national government (50%). The funding of state is channelled through the regional development funds managed by the Uusimaa Regional Council. The estimated budget of the period 2005–2007 amounts to 1.9 million euros. The implementation of the Programme is steered by a steering group appointed by the mayors. The coordination of the programme is on the responsibility of Helsinki City Urban Facts and regarding the national government funds on the Uusimaa Regional Council.

In the following the project names and contents will be demonstrated. The projects are classified according to the three lines of action.

Line of Action 1: To apply various forms of regional cooperation to improve wellbeing:

- SELMA, The regional multi-cultural information service centre, in 2003–2006
- The innovation environment project 2006–2007 to promote autonomy among the elderly
- The ILO project for innovative child protection
- HUP – Developing the Swedish-language services in the Helsinki metropolitan area
- Project for basic education for international families in the Helsinki metropolitan area

Line of Action 2: To support regional measures to improve the competitiveness of the Helsinki metropolitan area:

- Cooperation in vocational training to secure availability of labour
- Helsinki school of creative entrepreneurship HSCE
- Common entrepreneur services for immigrants
- Future development platforms and upgraded innovation finance
- Services designed for foreign experts
- Twin cities for science and arts: Helsinki–Tallinn

Line of Action 3: To support regional cooperation aiming to develop the urban structure and housing:

- Citizen channel – regional cooperation at local level
- Knowledge cluster in housing
- Coordination of the urban programme

The presented Helsinki metropolitan area urban programme is just one example of various development actions and plans. For example, the projects funded by TEKES can also be regarded as direct development actions. However, they are commonly associated directly with the specific research institution, industry or field of science, not with particular cities or city regions. Therefore, the selection of specific projects and actions is a problematic issue. However, the presented list clearly shows that issues relevant for the ACRE thematic are being implemented on practical level in the Helsinki metropolitan area. The on going and implanted projects demonstrate that issues of migration, creative entrepreneurship and housing are clearly present in the development plan. A large proportion of the identified projects are managed by the Culminatum Ltd.

Considering various strategy papers made during the last ten years perhaps the most relevant regional development document is the innovation strategy for the Helsinki region published by Culminatum (2005). The strategy presents a “four-pillar strategy” that is built on the following spearheads:

- I Improving the international appeal of research and expertise
- II Reinforcing knowledge-based clusters and creating common development platforms
- III Reform and innovations in public services
- IV Support for innovative activities

The strategy (2005: 4) states that the development of the Helsinki metropolitan region will determine the competitiveness of the whole country. Thus, the strategy states reference to the need for urban policy tools to strengthen the regional growth of the capital region. The four points presented show the key areas that the strategy is focused on. Essentially, the international appeal and the role of knowledge intensiveness are clearly present (points I and II). The reference to national innovation system and to the reform needs of public service provision is stated in the points III and IV.

The Helsinki metropolitan area strategy includes a total of 26 action proposals targeted to increase the competitiveness and economic performance in a knowledge based economy. Several of the proposed actions include issues of organisational co-operation both on vertical and horizontal axis, internationalisation and increasing of international contacts world-wide and the role of universities as engines of knowledge creation.

6.3 Future vision for the Helsinki metropolitan area

Helsinki Metropolitan Area Advisory Board has presented a vision scheme for the region (figure 6.2). The vision portrait supports the Culminatum innovation strategy for the Helsinki metropolitan region. The vision formulates development targets for the region's co-operative forms and community structure. The aim is to ensure balanced growth of population and jobs, to supplement the community structure and to create a sustainable development. The main objective is to promote a functionally mixed urban networked structure, and at the same time create the conditions for high quality living (also YTV 2003).

There are three major strategic goals that are relatively general: joint development of welfare and business services, improving competitiveness and the development of urban structure with housing. In addition the presented vision considers issues relevant to the people, environment and economy. There are challenges caused by the population and job growth in the metropolitan area. However, uncertainty factors and risks should also be examined and external factors affecting the Helsinki metropolitan area include the world economy, expansion of the European Union and consequent changes in production and movements of labour, and global or local environmental problems.

The goals and vision presented in figure 6.2 can be also evaluated in the light of thesis of Hautamäki (2007: 25) who discusses the relationships between innovation creation and city business development. Hautamäki suggests that Culminatum could be developed even stronger organisation for regional co-operation. He also sees that a particular entrepreneur forum should be created as a tool to aid business development (also Holstila 2007). Hautamäki presents quite similar tools in the pursuit of regional development that are presented in the Culminatum innovation strategy. He states (2007: 26) that the business development of the city of Helsinki should be targeted especially to creative industries. This is an important connection to ACRE project demonstrating the recognised needs in development practices of Helsinki area.

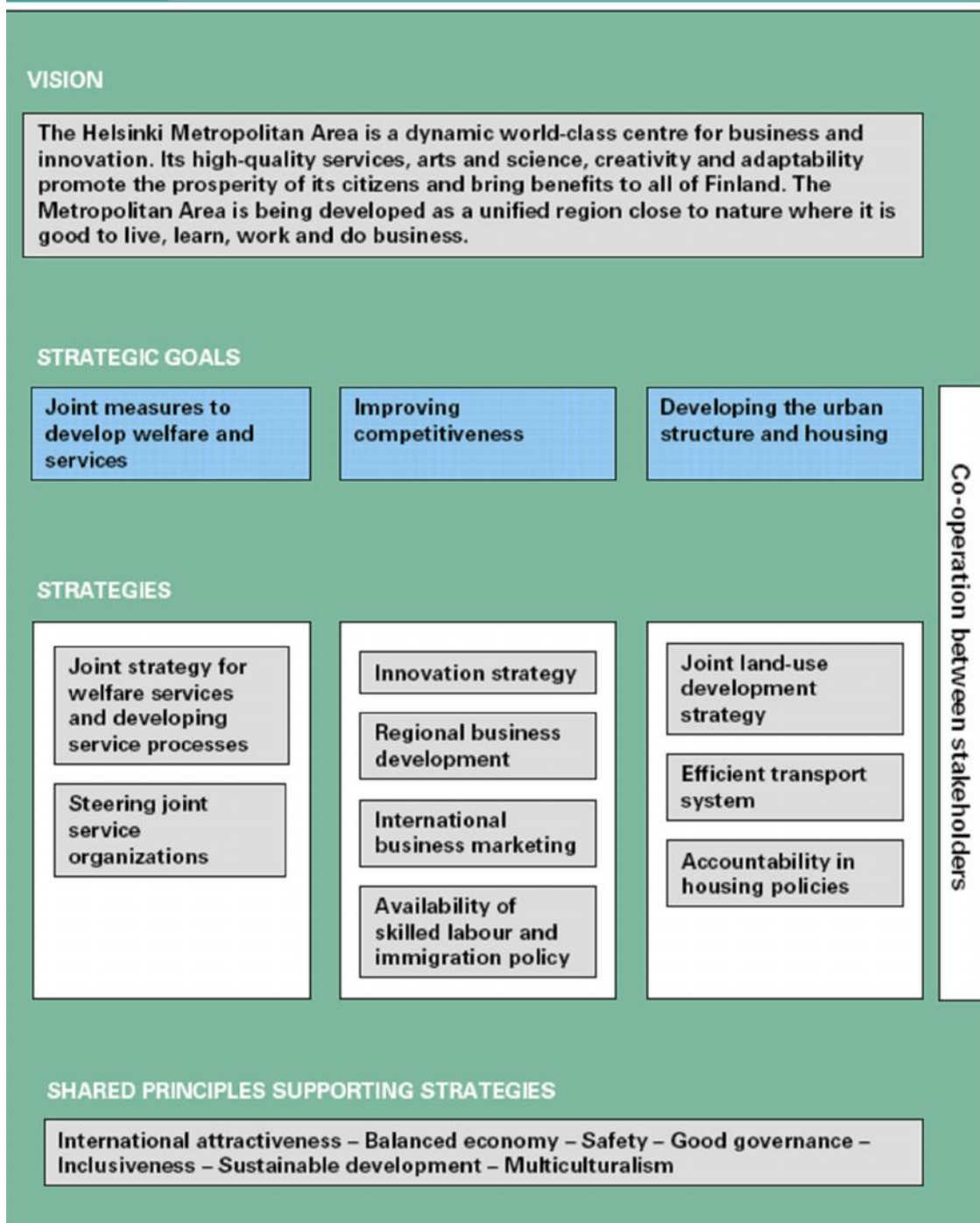
FIGURE 1**Common Vision and Strategy for the Helsinki Metropolitan Area**

Figure 6.2. Common vision for Helsinki metropolitan area. Source: Helsinki metropolitan area advisory board 2007. Retrieved 11.4.2007 from the Internet at http://www.hel2.fi/pks-neuvottelukunta/english/strategia_eng.pdf

Figure 6.2 demonstrates also segments of innovation policy and system as strategy tools to achieve the vision. Innovation strategy, regional business development, international business marketing and availability of skilled labour together include several challenges that are essential for contemporary development policy as whole. As presented in the vision scheme this includes proper functionality of transportation and infrastructure that has implications for housing policy, planning and spatial governance. Similarly, Karvinen (2005: 12) identifies two major strategy lines for regional governance in the Helsinki metropolitan area. The first is to unite the four municipalities (or more surrounding municipalities) into a single administrative entity. The second option would be to make a national law concerning the decision making and service provision. The issue is problematic because of the long-tradition of municipal self-governance that leads to interest conflicts between the whole entity (metropolitan area and surrounding region) and single municipalities. The same phenomenon is evident also on larger spatial scales, for example in the European Union. With this recognition Karvinen comes to conclusion to suggest a network based governance for Helsinki region as whole.

6.4 Chapter conclusions

This chapter presented key lines of action of the development programme for the Helsinki metropolitan area. The key interpretations include that issues relevant to ACRE are (and have been) on the development agenda of the metropolitan area policy makers for sometime and they have implemented already a selection of practical projects supporting creativity and development of metropolitan area attractiveness.

The metropolitan area vision takes up essential contemporary issues. The condition of environment, the development of land-use and planning for increasing needs of businesses and inhabitants, and the balancing between fragmented and over compact housing structures are taken into an account. These issues are accumulating in the Helsinki region and a concrete example of this is the expansion process of the city of Helsinki to neighbour municipality of Sipoo, which land area is mainly rural.

One thing that can not be asessed here is the societal impact that the development actions have had. This due to the fact that projects are still running and there is no assessment materials available. In addition, in most of the cases, impact assessments are not easily available. The impacts may also require a long time and their identification can be difficult. Perhaps the main point is that creativity issues are on the agenda of cities and local development actors and there is a considerable amount of work made on these issues.

Finally, it must be noted that majority of policies are co-operative efforts. In general, they also have a strong market orientation. However, there are some action and projects that provide information and solutions for public sector actions. The main lessen is the increasing need for joint-project ventures between public and private sector.

7 Conclusions

7.1 Comments on the development paths of the Helsinki metropolitan area

Development path

This report has provided general background package on Helsinki metropolitan area and Finland in general according to work package 2 structure. The development path of Helsinki thus includes the existence of regional imbalances that cause that Helsinki metropolitan area has expanded to its own scale in Finnish urban system. This covers all fields of measurement e.g. population, economic activities, number of businesses and number of students. Also the number of migrants is considerably higher in Helsinki metropolitan area than in the other parts of the country.

Second, the important factor is the history of education. The main universities located in the Helsinki metropolitan area have a long history dating back to 19th century and the oldest one to 17th century. The long history in provision of the highest education and knowledge labels the city and its current condition.

Third, the creation of the institutional frames for the welfare society in the 1950s to 1970s is important, because they have marked the path to the current societal of Finnish society. Welfare provision and the concept of equality are deeply rooted to national policy making and ethos. An example of this is that Finland was the first country in the world where women had equal voting and representation rights in parliament elections in the year 1907. In that election 19 women were elected in to the national parliament. They were the first women in any national parliament world-wide.

As can be seen, long historical traditions, creation of key institutions and development of general level of education of people are important issues in the development path of Helsinki metropolitan area and Finland. To summarise the essential claims there are the following additional points to consider:

- **History:** Since the capital was moved from Turku to Helsinki in 1812 due to Russian need to have the capital closer to their boarder, Helsinki has increased in all fields to a size of “natural national leader”. The first step in this process is the population growth and national migration from rural areas to cities.
- **Economy:** Due to the size difference to other Finnish regional nodes it has practically been a necessity that national level and international level large sized companies locate their headquarters to Helsinki region. Majority them are located in the metropolitan area. The global success of some of the Finnish companies (e.g. Nokia, Kone, UPM) has lead to a situation that these old Finnish companies have their headquarters on the metropolitan area, which is one of the backbones of Helsinki’s growth. These global players have also generated a large subcontracting network benefiting the whole region through SMEs.
- **Culture:** Due to the capital status, size and economic wealth in Finnish scale, Helsinki has also been the centre of cultural attractions and cultural life in Finland. However, the competition on the field in culture is harder with the old capita Turku than on other fields due to Turku’s cultural heritage.
- **Education:** Helsinki metropolitan area has seven university status educational units and the amounts of students was over 64 000 in 2004 (also analysis by van den Berg

& Russo 2004). The amount is over a double compared to any other regional capitals in Finland. Thus, Helsinki region produces professionals and offers professional appointments to a large extent within the regional cluster. Helsinki region also absorbs master degree graduates from all parts of Finland. Graduates move to capital area also from the “second” clusters of Tampere and Turku.

Thus, the development of Helsinki is very much due to the history, size and capital status that has developed the capital area. Currently, successful businesses have made the Finnish growth and recovery from the economic crises of the 1990s possible. Therefore, also the actions done in the 1990s have had an important role in the development of Helsinki metropolitan area into its current condition.

The condition of Finnish economy is currently biased between income measurements and employment measurements. The service sector is the most important employer but the majority of the value-adding to the GDP comes from industries. In the case of studied creative industries the most important sector is ICT. Other important sectors include advertising, publishing, and radio and television activities.

Future prognosis

The future trends look good for Helsinki metropolitan area. It has been one of the fastest growing regions in Europe during the last decades. European Economic Research Consortium (ERECO) concluded, that in the second half of the 1990s Helsinki was among the three fastest growing cities among the 45 city regions with respect to population, employment and GVA (gross value added) growth. The future forecasts are also positive. Helsinki will remain among the fastest growing cities in Europe in terms of population, employment and production.

Helsinki's ICT sector remains to be competitive and will be able to share the worldwide growth in demand. The expansion of the private sector is predicted to continue, maintained by steady domestic consumption. In addition strong economic growth of Russia and other nearby regions is expected to enhance markets for Helsinki based industries. In addition, the location close to markets Poland and Baltic states gives certain locational advantages. In contrast to most other European metropolises, Helsinki is less dependent of the tight markets of central and Western Europe.

Helsinki can be regarded as a modern and dynamic city with well trained labour force coupled with systematic investments in R&D. There has been a massive economic change towards open, globally integrated and ICT-driven economy, together with political stability based on Nordic welfare state. As already mentioned Helsinki has been successful in many recent international comparisons concerning competitiveness, education, innovations and the quality of life. However, it seems that there several challenges to tackle. The high position rankings have not resulted to extensive in-flows of foreign investments. In addition, the impact on location choices of international firms and their main offices has been relatively modest.

Another of the faced challenges is related to housing stock and planning. There is growing need for small scale apartments and attached houses. For example, the city of Helsinki dominated by apartment buildings and the availability of small houses is considerably higher in the surrounding municipalities. It seems, however, that Helsinki's housing stock remains dominated by small blocks of flats long to the future. The housing

policy is challenged also by population growth. It will continue in the Helsinki region. A vast majority of the growth will arise from inhabitants of foreign origin. Their share expected to double in less than ten years. The population growth will be take place on the fringe of the metropolitan area. The city of Helsinki has experienced negative net-migration for several years.

Finally, governance has a strong influence in to the future development of Helsinki metropolitan area. The municipalities and their authroties have monopoly in urban planning on their regions. Municipalities also own much (and even the most) of the land they aim to develop. The role of the local authorities continues to be essential in the planning and housing policy in the years to come.

7.2 Recommendations

These findings can be regarded as one of the starting points for the Helsinki region analysis. The identified developments and policies provide a platform for the interview and survey analysis. The results and presented arguments can be contrasted with suggestions of Raunio (2005) who has written an extensive analysis on the Finnish condition in global economy from the perspective of creativity, migration and future challenges. Raunio points out that in Finland the analysis of e.g. high-end professional migrants is currently almost impossible to conduct because the lack of degree registrations (degrees done elsewhere than in Finland). Raunio (2005: 78–84) proposes the following challenges and recommendations for the increase of creative knowledge in Finland. These recommendations have relevance for the ACRE thematic in the case of Helsinki and for the work package 7 in particular:

- The recognition of brain drain that is taking place. There is a constant out-flow of academic people from Finland. The requires development of in-migration statistics: the out-migration statistics could be reliably compared with the in-migration according to education and profession
- The development of financial initiatives to attract foreign high-end professionals to Finland. Finnish salaries for high-level professional are almost a half compared e.g. to Germany or United Kingdom. Also the taxation should be reconsidered for the top professional migrants (maximum taxation level 28%). The attraction development requires also the cultural change towards multicultural values and removal of “glass-roof” from foreign professionals to advance in Finnish organisations. This requires also more opening of Finnish labour markets.
- The development of the university education. Finnish universities should actively recruit foreign PhD students and provide preconditions for them to integrate to Finnish society. This requires further intensifying of university-business co-operation.
- The creation of services for the global economy that enable and make Finland more attractive to foreign academics and professionals.

Whether or not these recommendations are feasible the show the recognition and need of analyses of high-end professionals and “creative” workers in general. In addition, the empirical data sources are rather limited. This is a general problem and therefore, the use of statistical analysis will encounter problems.

7.3 Final remarks

Helsinki has always been the “leader” of Finnish urban hierarchy since it was founded. The development and growth of surrounding areas such as Espoo and Vantaa have supported the concentration and growth. Finnish regional policy has always been affected by the problem of the large land area and small population. Therefore, if any region in global or even European perspective can be described as innovative, creative or economic engine of a nation it is Helsinki that has not ever have a real rival in urban hierarchy in Finland. This has led to the fact that majority of cultural life, art and creativeness has concentrated to Helsinki or surrounding areas. We might call Helsinki metropolitan area as “naturally born” leader. There has been political decisions (particularly the expansion of the city of Helsinki) that have had an impact on the physical size of the city.

In contemporary development policies innovation and knowledge based industry creation is one of the top-priorities in national agenda in Finland. There are numerous projects, programmes and initiatives orchestrated by the public sector. There are some common features that should be considered from the policy documents:

- The role of private sector is rather limited in public sector driven development actions. Co-operation should be further increased
- The project development is not co-ordinated and several units are doing the overlapping things. National co-ordination should be considered
- The effects of the projects should be evaluated with a long perspective. A short term evaluation, commonly taking place immediately after the project determination, is not adequate to give a picture of impacts

The essential challenges of urban development in the case of Helsinki metropolitan area are related to constant and rapid increase of housing prices in the core areas of Helsinki, cooperation between planning authorities, political stakeholders and construction businesses, and recognition of the most important strategic spearhead industries for economic growth. The role of arts and other creative industries based on artistic creative have a little economic impact to national economy. Their importance shows in the creation process of a culturally attractive living environment. The need for new cultural services and attractions should not be underestimated in the urban planning and decision making.

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