Helsinki in the knowledge economy

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In recent years, much has been written and said about the 'knowledge economy'. European cities are in a phase of transition which includes a shift of accent towards knowledge as a production factor. In many sectors, the core activity is no longer the manufacturing of products, but instead, the development of new products and production processes, as well as the generation of new knowledge and the design of marketing concepts.

What are the characteristics of a knowledge economy? Which roles do cities play in the knowledge economy? How does this affect urban management and policies?

These are some of the questions approached in the research project "European cities in the Knowledge Economy" carried out by EURICUR (European Institute for Comparative Urban Research, Erasmus University Rotterdam). Helsinki was one of the nine cities included in the project, the others being Amsterdam, Dortmund, Eindhoven, Manchester, Munich, Münster, Rotterdam and Zaragoza.

Knowledge foundations

Cities that want to become – and remain – successful in the knowledge economy need solid knowledge foundations (see figure). The two main foundations are the knowledge base and economic base.

The knowledge base – which is important because it is a key input for economic activities in knowledge cities – is determined by the quality, quantity and diversity of universities, polytechnics, other education institutes and by R&D in public and private organisations. Creative knowledge, too, (cultural activities, media, design etc) adds to the knowledge base.

The economic base is important because it determines the starting position of cities in attracting and developing new knowledge activities. The economic base of urban regions with a service-dominated economy is usually stronger than in cities specialising in manufacturing and, for example, port industries. For example, Amsterdam has relatively many service activities, which stimulate employment, while Rotterdam has many port activities, which are in a process of decreasing employment.

Also, cities with a diversified economy are less vulnerable in rapidly changing economic circumstances because the downturn in some sectors is then compensated by growth in other sectors.

The quality of life in a city is important to attract and retain knowledge workers: it includes an attractive built environment, high-quality housing, green areas (parks etc) and a rich variety of cultural institutions (e.g. theatres, cinemas, museums).

Since the knowledge economy is a network economy, accessibility plays an important role: especially international connections (airports and high-speed

trains) are essential. Furthermore, a solid digital infrastructure (broadband networks) and good internal accessibility (including urban public transport) add to the accessibility.

Cities with a high urban diversity are better positioned to attract creative knowledge workers. Urban diversity includes the ethnical composition of the population, but is also related to a diversified economic base and to quality-of-life factors such as a varied built environment and a sufficient mix of cultural facilities.

The knowledge economy is a network economy: rapid developments in the knowledge sector engender a situation where no single person or company can master all disciplines or even monitor all the latest developments – nor can cities, for that matter. Cities – especially those of a smaller urban scale – need to engage in strategic networks to be able to respond in time to rapidly changing markets and technologies.

Every city in the network needs to develop its own specialisation and strengths. To a large extent, big is beautiful in the knowledge economy. For companies it is easier to find specialised staff in larger cities, and for people big cities are attractive thanks to their large and varied provision of jobs. The big population of large cities enables bigger airports and specialised facilities such as international schools.

In the knowledge economy, there is a two-way relationship between economic performance and social equity. For one thing, growth in the knowledge intensive sector benefits not only the qualified knowledge professionals but those people, too, that have a lower level of education, because this growth increases the number of jobs in personal services, hotel and catering industry and retail trade, where a lower level of education is often sufficient. Furthermore, reduced poverty and inequality can stimulate economic growth by increasing people's sense of securit

y and by enhancing the purchasing power, which will strengthen the demand factor in the economy.

Knowledge Activities

What can cities do to become stronger in the knowledge economy? The study mentioned above distinguished four key factors:

A Attracting/retaining knowledge workers. This aspect deals with the ability of cities to attract and retain highly educated people, students, but also workers in creative industries (e.g. new media and design).

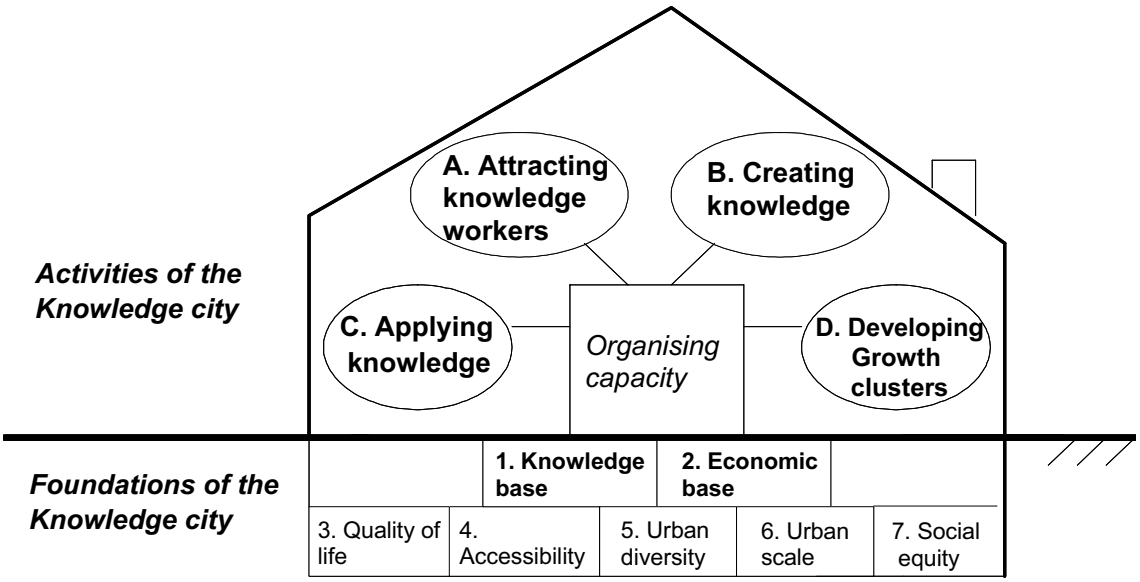
B Creating new knowledge. This can be purely scientific knowledge, but also other sorts of knowledge.

C Applying knowledge. The report analysed how scientific knowledge and other skills are transferred into business (for example incubator facilities for start-up companies) and more in general how the knowledge infrastructure and businesses co-operate.

D Developing growth clusters. For each case city the research analysed how clusters are formed and stimulated and which types of clusters have been chosen.

It is important to acknowledge that knowledge activities are interrelated: the creation and application of knowledge and the attraction of knowledge workers all contribute to enhance growth clusters. Furthermore, knowledge activities are tightly linked with knowledge foundations. The original foundations influence the degree and direction of knowledge-related activities (for example, it is easier for cities with a high quality of life to attract knowledge workers), while knowledge activities help strengthen the foundations.

To give an example, cities that are successful in stimulating growth clusters strengthen their economic base. The degree of success with which cities set up and execute their knowledge-related activities largely depends on the quality of the organising capacity in the city: vision, strategy formation, leader-



ship and strategic co-operation are crucial ingredients.

A strategy of knowledge economy in Helsinki

In Europe, Finland was one of the first countries to develop explicit knowledge economy strategies. The economic crises in the early 1980s and, especially, 1990s were major incentives for knowledge strategy formation. The current success of knowledge-intensive activities in the Helsinki region can be explained by the high quality of education and the good relations between research and business: these factors are significantly better developed in Helsinki than in the other eight case cities.

National institutes appear to play an important role in this respect. A key player is the Science and Technology Policy Council, chaired by the prime minister, setting out strategic themes for the knowledge economy. Besides, organisations for funding such as Tekes and Sitra prescribe co-operation between knowledge institutes and businesses.

This national involvement with the knowledge economy activities makes Finland a frontrunner compared with other European countries where specific national knowledge economy policies have been formulated only recently.

In many countries, there is a gap between national innovation policies, which are very general, and local competences and ambitions that are more specific and concrete. Too often, national innovation policy is non-spatial, i.e. it does not take regional differences in economy and knowledge specialisation into account. With this in mind, Finland has designed a national Centre of Expertise Programme, launched in 1994.

The idea of the Centre of Expertise Programme is to focus local, regional and national resources on the development of internationally competitive fields of know-how in specific places. The programme covers the whole country and is implemented in regional Centres of Expertise appointed by the Council of State that co-operate closely with universities and companies in their respective sectors.

Such a tendency towards regional centres of expertise in internationally leading fields was seen early in Finland: several other European countries have started such focussing programmes only very recently.

Earlier, local authorities in the region of Helsinki used to play a predominantly accommodating role by, for instance, supplying the necessary infrastructure and business space. In recent years, however, they have developed more explicit policies to enhance their regional competitiveness, but nonetheless, these policies still play a rather small, complementary role in relation to the national knowledge economy strategies.

In Finland, the regional government level does not play a key role the way it does in Germany, for example, where the Länder are important players in the field of educational and science policy.

Helsinki's knowledge foundations

The broad knowledge base of Helsinki is outstanding compared with the other eight case cities. Helsinki has, by far, the highest educated population. In Finland, too, Helsinki's population is higher educated than the national average. In all, the economic base in Helsinki is judged as good by the study.

However, the Helsinki region's dependency on the ICT sector makes its economy susceptible to global slowdowns. More diversified cities such as Amsterdam and Munich have a stronger economic base. Helsinki offers a high urban quality of life (clean and safe), but from an international point of view it lacks a 'sexy', vibrant city image (e.g. like Amsterdam): this may make it more difficult to attract foreign knowledge workers.

Helsinki's accessibility is quite good: besides having a significant international airport it has plans to build several high-speed train links, including a line to St. Petersburg. This should help Helsinki consolidate its position as a gateway between Europe and Russia.

Urban diversity in Helsinki is assessed as rather low by the study: for example, the percentage of inhabitants with a foreign background is the lowest of all nine European case cities. Some theorists (e.g. Richard Florida) consider a low urban diversity a barrier to attract foreign workers.

The relatively large investments in arts and culture in the Helsinki region are viewed as a positive factor by the study.

Helsinki's so-called urban scale is relatively limited when compared with cities such as Manchester and Munich. This might be one of the explanations for the comparatively narrow economic base of the region. Co-operation with other cities in Finland, and with other Scandinavian and Baltic cities might help to create a larger urban scale.

Social equity in Helsinki is judged as relatively high when compared to e.g. Rotterdam and Manchester. Authorities in Helsinki are focused on preventing rather than mending social exclusion. Besides, the high social equity (and high average education) is also seen as very helpful in creating a large critical demand for knowledge intensive products.

Knowledge activities in Helsinki

The capacity of the Helsinki region to attract and retain knowledge workers is considered to be good by the study. Within Finland, the Helsinki region has a strong attraction for highly educated people.

One of the drawbacks of Helsinki is a shortage of good housing. Moreover, Helsinki lacks an international location climate such as, for instance, Amsterdam's: Helsinki does not attract many foreign knowledge workers. Internationalisation strategies including marketing programmes and university lectures in English have been set up to improve this situation. Also, strategic contacts created with cities such as Tallinn and St. Petersburg are supposed to promote Finnish interests and to attract workers from these regions.

One of the strengths of the Helsinki region is its readiness to create knowledge. Research and education are of high quality and current incentives appear to be sufficient to keep up this high level. R&D invest-

ment in Finland is high and increasing. The number of patents per inhabitant also ranks among the top in Europe. Nevertheless, more European co-operation and specialisation is needed to compete with R&D in the US, because there are still too many relatively weak R&D institutes within Europe today.

The capacity within the Helsinki region to apply knowledge is judged very good by the study. Strong relationships between education and business institutes exist, stimulated by national funding programmes, which demand co-operation. The Finnish habit of consensus and trust is also helpful.

One of the strengths of the Finnish economy is to combine technological knowledge and design. This is one of the explanations for the success of Nokia, a world leader in the development and manufacturing of mobile phones. Such combinations should be further strengthened.

A promising new combination is welfare activities and technology: the ageing of the population will lead to a huge increase in demand for health care. Most cities in Europe will have to cope with an ageing population, but only few cities have targeted welfare activities and technology as a promising business sector.

Stimulation of start-up firms may become more important to widen the economic base. However, in Helsinki, a certain lack of entrepreneurial attitude seems to be a barrier. Such shortages in entrepreneurial activities were also found in most other case cities. This appears to be a side effect of the welfare state: inhabitants are more reluctant to take risks. Better dedicated policies and education programmes should be developed to lower this barrier.

The ability to develop growth clusters in the Helsinki region is good, but it could be improved. Due to the relatively small economic base of the Helsinki region, there is an urgent need to develop new growth clusters. The national Centre of Expertise Programme could contribute to this aim by supporting the most promising regional R&D activities.

Within the Helsinki region, six clusters of knowledge intensive activities are designated: One of them is medical and welfare technologies. Another cluster is the already dominating ICT cluster, the scope of which should be extended to other economic activities. Helsinki should be sure to develop clusters that distinguish the city from other cities: most of the nine case cities compared were found to be focusing on the same clusters.

Perspectives for Helsinki

For Helsinki the research found that there is a fear that other Finnish regions are going to be supported more out of national funds to the detriment of the Helsinki region. From the viewpoint of a globalising economy, it is questioned to which extent Finland can afford such an equity policy. To be sufficiently competitive in the world-wide economy, the engine of Finland –the Helsinki region- must obtain sufficient means to further improve its economic and knowledge base. It could be argued that the other regions will benefit from the spread effects of the national policy; but they could also face decline parallel with an eventual slowdown of the Helsinki economy.

Despite the global economic downturn, the Finnish economy performs relatively well. Yet, the economic structure is vulnerable because of too much dependence on one economic sector: ICT. There appears however to be sufficient sense of urgency that continuous efforts are needed to guarantee economic growth and diversity in the near future.

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