ABSTRACT

In order for cities to become and remain successful in the knowledge economy, they need solid knowledge foundations. A key question is: What can cities do to become stronger in the knowledge economy? In general terms, how does business and knowledge structure cooperate? What statistics and other information are requested to cope with these main questions? High social equity and especially high average education are also seen as very helpful in creating a sustainable knowledge economy. On the other hand, knowledge intensive business and activities are to a large extent enablers of sustainable urban development. Finally, an attempt is made to present cities knowledge needs on urban sustainability and to look at these utilising established frameworks for sustainability.

Key words: knowledge economy, urban development, urban sustainability

1. URBAN SUSTAINABILITY AND KNOWLEDGE ECONOMY

European cities are in a phase of transition which emphases knowledge as a production factor. The industrial structure of European cities is very much service based including knowledge intensive business services (see Seppo Laakso and Eeva Kostiainen, 2010). In the metropolises in this study, the service sector share of total employment is on average 78 %, whereas in the 27 EU countries taken as a whole, the service sector employs approximately 70 % of the workforce. Common to almost all big cities is the great importance of the service sector.

Thus, the core activity of urban economies is no longer the manufacturing of products, but instead, the development of new products and production processes, as well as the creation of new knowledge and the design of marketing concepts. You may also talk about design of services and even about quality of life and design. Design and the approach to design have changed strongly in the last few decades. What was formerly a playground for artists, is nowadays its own economic sector. Design and sustainability are connected (see e.g. http://www.wdc2012helsinki.fi/en).

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Following the ongoing discussion in cities and the evolution of new development plans and agendas raise questions such as: What are the characteristics of a knowledge economy? Which roles do cities play in the knowledge economy? How to simultaneously promote a competitive, sustainable and inclusive city? What are the impacts on urban management and policies, urban development and planning? These questions are approached in a 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 (EURICUR, 2005). This very piece of research states that cities that want to become – and remain – successful in the knowledge economy need solid knowledge foundations. Activities of “the Knowledge City” comprise (a) attracting knowledge workers”, (b) creating knowledge”, (c) applying knowledge, and (d) developing growth clusters. In addition, the “the Knowledge City” has high organising capacity. The knowledge base is to a great extent determined by the quality, quantity and diversity of universities, polytechnics, other education institutes and by R&D in public and private organisations.

The European Urban Audit is the only coherent and comprehensive urban statistics data set provided on European cities, their functional urban regions (larger urban zones), and neighbourhoods. The State of European Cities analysis is drawing on these data. Drawing on key drivers of urban competitiveness and on size, economic structure, and economic performance of the city, the authors of the State of European Cities Report introduce a tentative typology of urban competitiveness. The typology offers thirteen different city types (pp. 51-86).

The typology of European cities presents three major groups of competitiveness, namely international hubs, specialised poles, and regional poles. Among the international hubs we may identify knowledge hubs as one sub-group. Knowledge-hubs are key players in the global economy and their assets are above all a high core city population, a larger urban zone population, a high share of in-migrants, GDP growth higher than average, high GDP per capita, a high employment rate and low unemployment rate, a high share of well-qualified residents, high entrepreneurship rates and high accessibility. Examples of cities belonging to this group are Hamburg, Frankfurt, Munich, Copenhagen, Barcelona, Helsinki, Lyon, Dublin, Milano, Amsterdam, and Stockholm.

The European Urban Audit is evolving and offers already a large definition of sustainability for monitoring quality of life in European cities and for assessment of the state of European cities also in terms of economy and sustainability. The Urban Audit data covers the following domains: demography, social aspects, economic aspects, civic involvement, training and education, environment, travel and transport, information society, and culture and recreation.

2. KNOWLEDGE NEEDS ON SUSTAINABLE URBAN DEVELOPMENT

This chapter is based on results and activities of two European projects aiming at promoting urban sustainable development by providing appropriate and requested information on urban sustainability. Urban Matrix, a four year long EU –project targeted at knowledge exchange on urban sustainability (see www.urban-matrix.net) was coordinated by EUROCITIES, the network of more than 140 major cities in Europe. The consortium included the University of the West of England, GHK Consulting as well as nine EUROCITIES members: Amsterdam, Helsinki, Seville, Malmo, Belfast, San Sebastian, Palermo, Stockholm and Sheffield. Through a Memorandum of Understanding, URBAN MATRIX also closely cooperated with the European Urban Knowledge Network (EUKN). During the project lifespan (2006-2010), URBAN MATRIX analysed current knowledge needs of cities on sustainable urban development through three rounds of demand
surveys; compiled an e-library of best practices and research cases; and organised a series of thematic workshops each focusing on a different topic of current concern about sustainable development for European cities.

The outcome of the Urban Matrix demand surveys identified eight main sustainable urban development themes on which cities require better knowledge. These are:

- Integrated approaches to sustainable urban development
- Sustainability aspects in public-private partnerships
- Cooperation with stakeholders and citizen participation
- Climate change
- Integrated transport systems
- Social cohesion & demographic change
- Urban regeneration & compact cities
- Linking competitiveness and economic development to sustainable development

Secondly, the European Minister responsible for urban development commissioned France and the French Ministry of Ecology, Energy, Sustainable Development to elaborate and monitor, from January 2009, a high level European working group to develop, with and for the cities, a reference Framework for European Sustainable Cities (http://www.rfsustainablecities.eu/). This framework aims at providing an overarching structure which could help local authorities and diverse stakeholders to make assessment of sustainability and the monitoring of their urban strategy. This project seeks to achieve the following objectives:

- To deliver an accepted common framework for sustainable urban development
- To put in place the foundations on which to improve the skills and capacity to deal with sustainable integrated urban development
- To deliver a key set of quality material (tools; good practices and the like) that can evolve and be adapted to suit city needs - and that will endure
- To sufficiently mobilise city and national bodies to build a sustainable learning network

In addition, individual cities have made recognisable efforts and achievements in the field of monitoring urban sustainability.

3. THE WAY FORWARD

Since the 1992 Rio summit numerous local communities have put efforts in larger or smaller local sustainable development projects linked to Local Agenda 21. Many of these projects have also collected indicator sets in order to measure the development towards sustainability in their area. Very often the local indicator sets have met problems with poor availability of data and lack of coordination with national and international frameworks. The issues of sustainability in metropolitan and city areas differ from national and global issues. In most city areas the share of service industries is very high and still rising. In metropolitan areas economic development is essentially linked to knowledge. The population of city areas is constantly growing and social problems in cities are increasing, especially in developing countries.

The definition of the content of social sustainability and its interconnection to ecological and economic sustainability has proven to be important for the measurement frameworks of sustainable development (UNECE 2009: 85-86).

The research on urban development can lead to better understanding of the concept of sustainability in different social environments. The statistical frameworks can be developed to take better account of the social dimension of sustainability by analysing the social problems of urban areas. The role
of ‘non-material’ resources, like information and knowledge networks in economic development is also an issue that can be most clearly observed in metropolitan and city areas.

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