

**The urban development of metropolitan regions determines the location factors of companies of knowledge economies.
Contrast analysis of Helsinki metropolitan area with Barcelona metropolitan area**

R e p o r t 0 3



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**The urban development of metropolitan
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This report makes a brief exposition of the Helsinki metropolitan area (hereinafter HMA) with the aims to know the factors that motivate and determine the location of multinational companies and motivate the creation of new ones related to knowledge intensive sectors (hereinafter KIS). In addition it shows a brief analysis of the Barcelona metropolitan area (hereinafter BMA) which have significant indexes of KIS sectors in their labor markets and economical production, with the purpose of a comparison of the realities of both metropolitan areas.

The KIS sectors correspond to all economic sectors that have greater expertise in employment and management of knowledge-based processes. In the classification of the Organization for Economic Cooperation and Development (OECD) of all economic sectors, the knowledge economies are defined as high-tech industries and services with high knowledge.¹

The increase in the last decades of the weight of the knowledge-economies in the economies of metropolitan areas is transforming the dynamics of urban development, for the access of these sectors to agglomeration economies, such as skilled labor and good communication infrastructures.

In recent years the contributions of regional science to the discussion about the development of the regional territory have emphasized the concept of endogenous development. It refers specifically to the capacity of urban territories to accumulate economic growth. Within the set of theories of endogenous regional development

¹ These economic sectors corresponding to the areas defined by Chica & Marmolejo (2011) as SIC sectors. They are the result of applying a methodology, which is initially the result of the selection of sectors defined by the OECD as high knowledge and high technology. With the information of the training level of each occupation of all the economic sectors, the work places with higher qualifications for each of the economic activities and their homogeneous groups can be found by using statistical techniques of principal components analysis and hierarchical cluster analysis. These groups are: *high technology industries*, including manufacturing of medical equipment and surgical instruments, precision optics and watches, manufacturing of office machinery and computers and electronic, radio, television and communication equipment, *financial services*, including financial intermediation services and auxiliary activities, insurance and pension plans and real estate, *R & D* and *education*, *computer* and *telecommunication services*, *business services professionals*, including legal and accounting activities, market research and public relations, consulting on business management and various professional services (hereafter SE), *health*, *veterinary and social services*, the *creative industries* and *cultural services*, including activities such as production and distribution of video, radio and television, literary and artistic creation, libraries, archives, museums, sports and recreational activities.

there are various theoretical approaches that emphasize the importance of territory and its relations with the methods of production as deciding factors of development. From the contributions of the new economic geography, which Krugman (1992) is one of its greatest exponents; the territory is seen as a specific resource of economic development with an intrinsic value, able to add value to the economic activities developing into itself.

Authors like Camagni (1991), Vázquez Barquero (1999), Hall (2000), Simmie and Lever (2002), Florida (2002) and Ondategui, (2006) attributed to two factors the key role in the emergence of KIS sectors in the metropolitan areas, which are the engines of innovation and the urban communities. The first refers to the infrastructure used to support scientific and technological production and contributing to the economic function of a region, as research centers, universities, technical and technological infrastructure and business clusters. The second refers to the organized activity of people and groups who inhabit a city, to develop their visions and their practical scientific, technological, professional and business.

Despite the decentralization of the economy by the processes of globalization and the new organization of economic activity, which has helped the IT revolution, the centres of cities and metropolitan areas remain the places which generate the scientific and innovation processes (Marmolejo and Roca, 2006). That is why decentralization and relocation of the knowledge economies in metropolitan areas constitute an element of particular interest in the discussion of growth patterns in metropolitan areas, apparently contributing to a polycentric growth thereof, by the necessary presence agglomeration economies for its development.

This growing importance of the territory and, in particular, metropolitan areas as attractive places for new and more specialized economic development leads to a necessary reflection about how metropolitan areas determinate the creation and consolidation of KIS sectors and how urban territory is impacted for the externalities generated by them. Also it is important to know how public policies can be in favor in the process of localization of technology companies and other KIS business sectors.

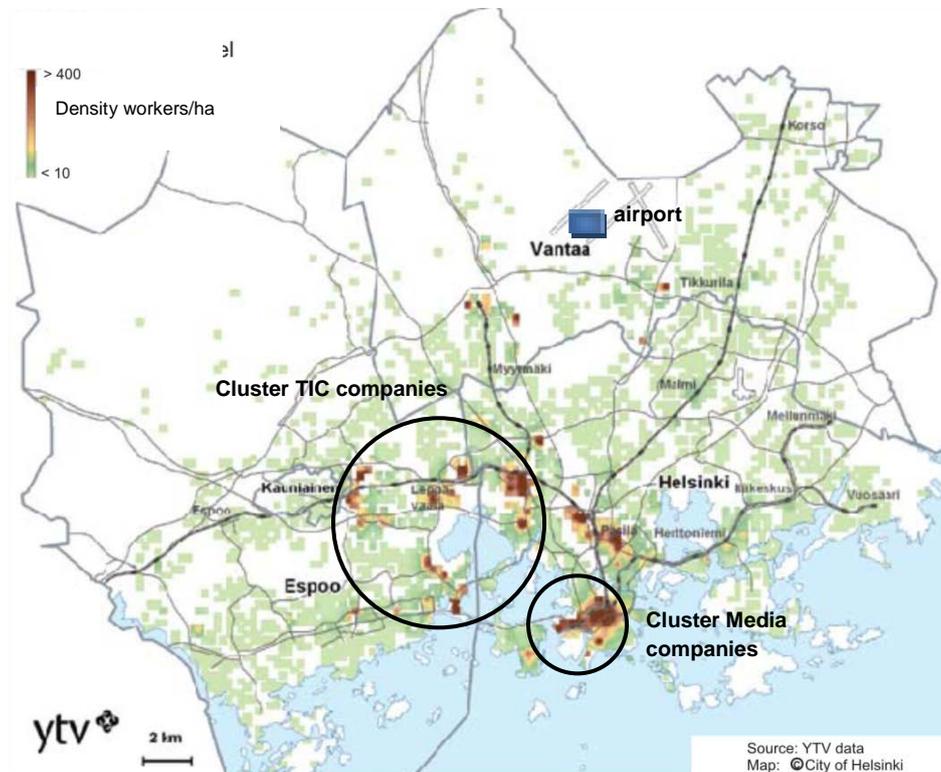
In this way a contrast analysis between the two areas of study can be used to tackle the understanding of the phenomenon from two opposing viewpoints. Guidelines can be generated from this analysis and they can be transformed into strategies for searching solutions to the phenomena of large multinational technological companies and other KIS sectors abandoning the central locations of the metropolitan areas, which is a consequence of economic globalization process. However, this phenomenon of abandonment does not appear in the same way in all European metropolitan areas. According to the arguments explained earlier, metropolitan areas and urban regions with a better-qualified human capital and physical infrastructures can transform their economies into more specialized economies.

In the BMA case the last decade was a process of abandonment of the area to many companies of the key economic sectors. It has generated a transformation process of the area's urban space with disastrous consequences for its future development. In the 90s the public policies, low taxes and low land rental prices helped the growth of this area, attracting many technology companies to the region. Actually, similar public policies are not enough to retain the same companies that received these benefits, and even less compelling to attract new businesses. Despite this, the BMA show a growth of the KIS sectors, by means of the transformation of its own productive sector. Despite differences of the two metropolitan areas of study, the obvious larger population and territorial extension of the BMA compared to the HMA, both areas of study are metropolitan areas with a higher density of SIC business in Europe. The HMA hosts many technology companies of business digital services (Inkinen and Vaattovaara, 2007). On the other hand the BMA hosts many companies related to the creative and cultural industries and financial services (Muñiz and García López, 2009; Chica and Marmolejo, 2011).

The **HMA** includes Helsinki and other three cities: Espoo, Vantaa and Kauniainen, whose total population is about one million inhabitants, 19% of the total population of Finland. The HMA has 574,000 work places (30% of Finland) and represents 36% of its GDP per capita (48,675 euros), twice the EU average (Vaattovaara et.al, 2010). In the HMA, the City of Helsinki has traditionally had the strongest position in the economy of

the region, as shown the project ACRE². It highlights the existence of creative industries mainly in Helsinki, industry and high technology sectors of information technology and communication in Espoo, the second biggest city in population; Vantaa, the third largest city in population, for its vocation to the logistics center in the region because of the location of the international airport and, finally, Kauniainen, the municipality with smaller population, its residential calling for residents of the region (Vaattovaara *et.al*, op.cit).

Figure 1. TIC companies location (software and media)AMH, 2009



source: YTV data, ACRE report 8.5, 2009

² Large name is *Accommodating Creative Knowledge - Competitiveness of European Metropolitan Regions within the Union*. It aimed to study the impact of the "creative class" and "creative industries" competitiveness in the 13 metropolitan areas in Europe. Barcelona and Helsinki were part of the study. It included a study about the point of view of managers, employers and transnational migrants related to the KIS sectors, which were selected into this research. (Vaattovaara, et.al, 2009)

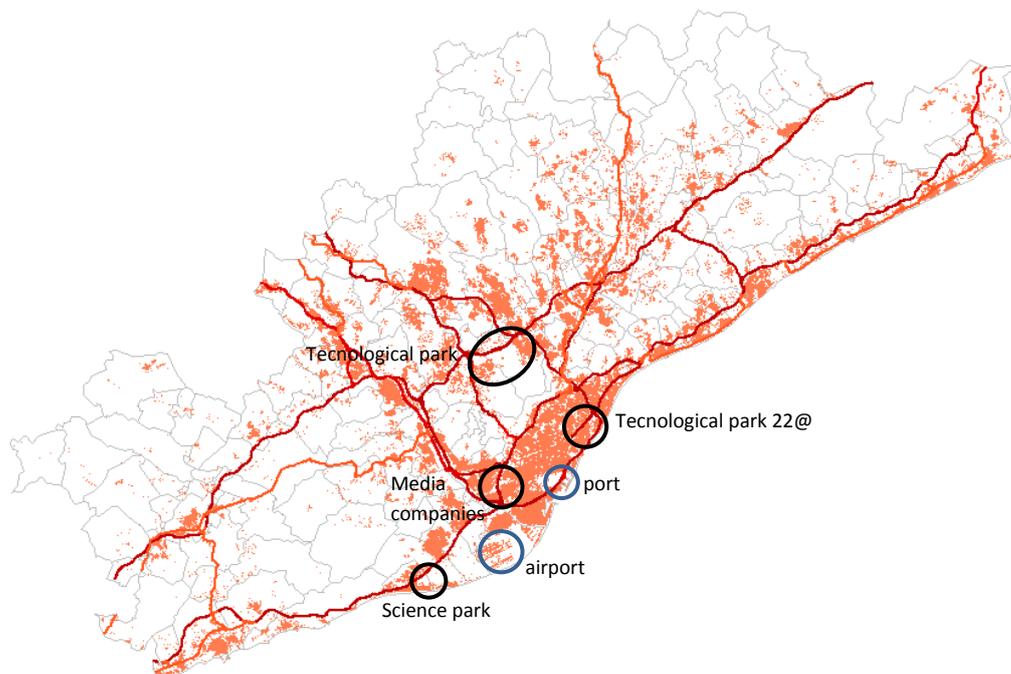
Table 1. Economical activity, AMH, 2007

Activitat econòmica	Total en <i>Helsinki Metropolitan Area</i>	Espoo	Helsinki	Kauniainen	Vantaa
% d'establiments per municipi	100%	20,0%	64,2%	0,8%	15,0%
% de treballadors per municipi	100%	19,0%	62,2%	0,3%	18,5%
% de la facturació total A.M.	100%	37,3%	45,4%	0,1%	17,3%

source: HSY Helsinki Region Environmental Services Authority

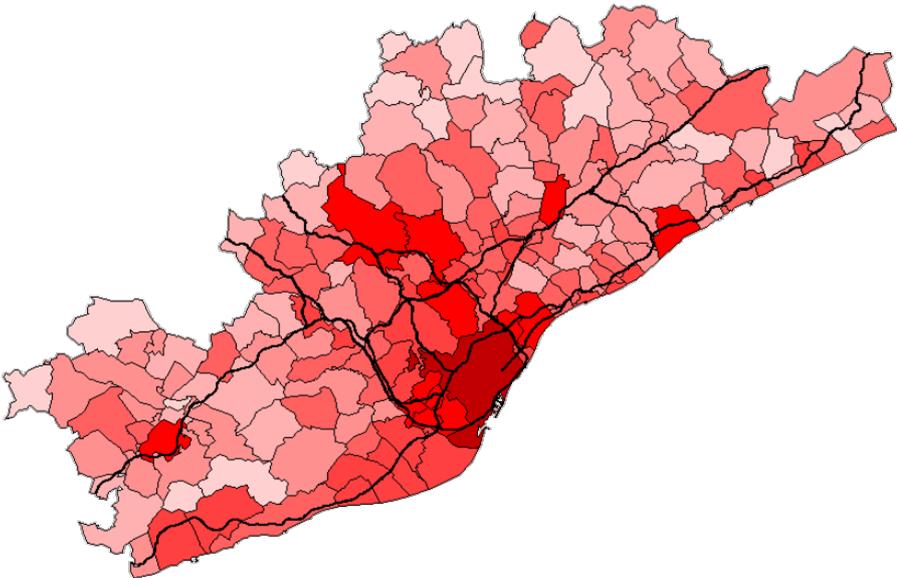
The **BMA** includes Barcelona and 33 other cities, 13 of which are a set of small and medium sized cities located close to Barcelona. The population of the BMA is approximately three million inhabitants; half of them live in Barcelona (Spanish National Statistics Institute INE, 2009). In 2001 there were about 1,3 million work places (according to the data of last population census, INE, 2001). In 2001 there were about 450.000 work places of KIS sectors (30% of its work places). This area is specialized mostly in financial and business services related sectors (Chica *et al*, op. cit.; Muñiz *et al*, op. cit). The figures 2, 3, and 4 show the main characteristics of KIS and HTI economic sectors location and agglomeration patterns.

Figure 2. Urban land RMB, and cluster KIS and HTI companies, 2010



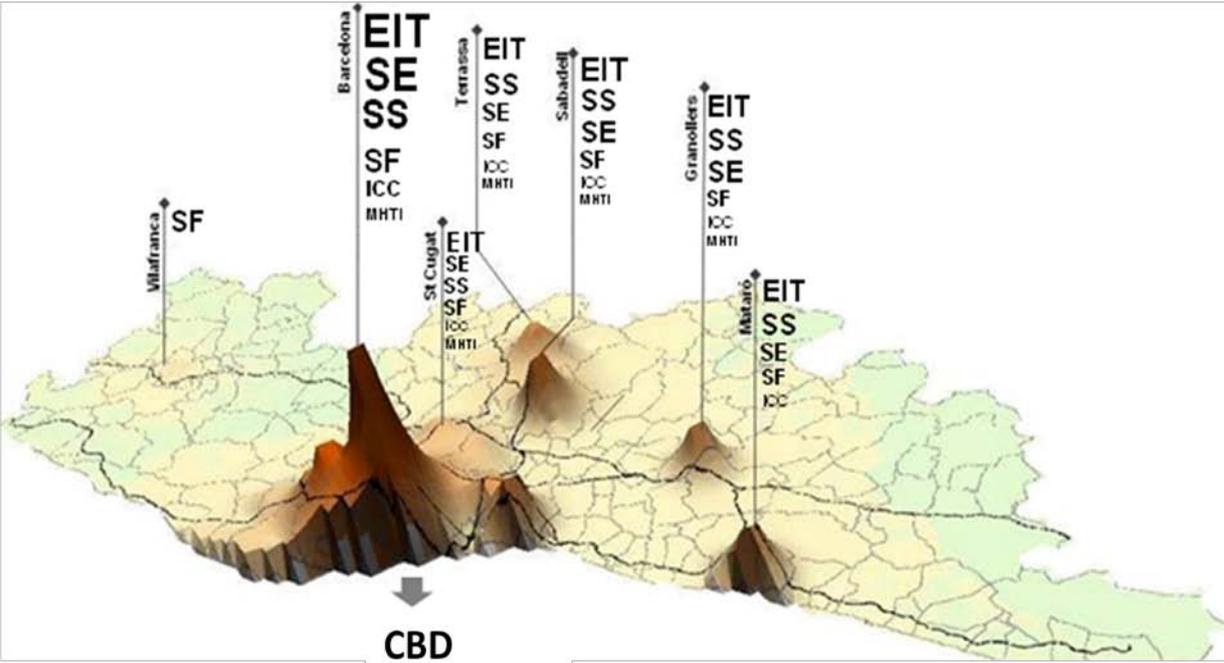
source: own elaboration

Figure 3. Density KIS and HTI economic sectors, 2001



source: own elaboration

Figure 4. Subcentres KIS and HTI economic sectors, 2001



source: own elaboration

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