

Moving Towards a Knowledge City?

Brisbane's Experience in Knowledge-Based Urban Development

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ABSTRACT

In the global knowledge economy, knowledge-intensive industries and knowledge workers are extensively seen as the primary factors to improve the welfare and competitiveness of cities. To attract and retain such industries and workers, cities produce knowledge-based urban development strategies, where such strategising is an important development mechanism for cities and their economies. This paper investigates knowledge-based urban development strategies of Brisbane, Australia that support generation, attraction, and retention of investment and talent. The paper puts forward a clear understanding on the policy frameworks, and relevant applications of Brisbane's knowledge-based urban development experience in becoming a prosperous knowledge city, and concludes by providing invaluable insights and directions for other cities seeking knowledge-based urban development.

Keywords: Knowledge-Based Development, Knowledge-Based Urban Development, Knowledge City, Knowledge-Intensive Industry, Knowledge Precinct, Knowledge Workers

INTRODUCTION

Many cities worldwide face the prospect of major transformation in the 21st century as the world moves towards a global information order shaped by the growth of technology and knowledge economy (Castells, 2000; Slabbert, 2006; Metaxiotis et al., 2010). In the knowledge era urban economies are being radically altered by dynamic processes of economic and spatial restructuring, and the rise of knowledge-based opportunity has been accompanied by a concomitant decline in neoclassic industrial

activity (Graham & Marvin, 1996; Drucker, 1998; Burton-Jones, 1999:). The replacement of physical commodity production by more abstract forms of production has paradoxically reinforced the importance of central places and led to the formation of 'knowledge cities' (KCs) (Carrillo, 2006). In this formation the importance of knowledge-based urban development (KBUD) for cities is clear (Knight 2008; Yigitcanlar et al., 2008a). KBUD is a development approach that aims sustainable urban development and economic prosperity, helps in making cities compatible with the knowledge economy, and provides their citizens with opportunities to foster knowledge creation,

DOI: 10.4018/ijkbo.2011070102

knowledge exchange, and innovation (Ergazakis et al., 2004). KBUD provides enabling conditions for cities in global competition, such conditions include: knowledge infrastructure (e.g. universities, research and development institutes); technological infrastructure (e.g. information and communication technologies); connections to the global economy (e.g. international companies and finance institutions); and concentration of well-educated and creative people (e.g. knowledge and creative workers) (Van Winden & Berg, 2004; Carrillo, 2006). During the last two decades a number of cities adopted KC and KBUD strategies, which have become important mechanisms for the knowledge economies of cities. Although many cities promote themselves as KCs, currently, there are only a handful of cities around the world (e.g., Barcelona, Bilbao, Boston, Helsinki, Ottawa, Singapore, Stockholm) that have earned that label (World Capital Institute & Teleos, 2009; Yigitcanlar, 2009). Many other cities aspire to the status of KC through urban development programs that target knowledge-based development – KBUD. Examples include Brisbane, Copenhagen, Dubai, Kyoto, Manchester, Melbourne, Shanghai (Ergazakis et al., 2004; World Capital Institute & Teleos, 2009).

Recent literature suggests that assets like strong knowledge base, economic base, and other complimentary dimensions like quality of life and place, urban diversity, social equity, and urban scale are the foundation elements of KBUD for cities (Van Winden & Berg, 2004). As Carrillo (2002) indicates these foundational elements of KBUD interact with other space- and time-specific variables such as historical conditions, military and political dominance, ethnic and linguistic blending, trade routes, regional cultural environment, natural and human-induced catastrophes, ideological movements, that give each city a unique character. Many cities around the world have already adopted KBUD strategies, without fully considering their local identities and strengths, to achieve their ongoing KC agenda. However, it is essential to produce tailored KBUD strategies that are based on, and suitable for,

cities' unique contexts. Therefore, the question of 'whether introduced KBUD strategies are adequate enough to transform a city into a KC' deserves a profound investigation. To address this important question, the research presented in this paper develops an analysis framework of KBUD, and examines KBUD experience of Brisbane, Australia by using this framework. By doing so, the paper provides a clear understanding on the policy frameworks and relevant applications of Brisbane. It also explores Brisbane's urban development policies with a particular focus on its knowledge clusters (i.e. science, technology and creative industry clusters – knowledge precincts), discusses Brisbane's potential to become a KC, and provides invaluable insights and directions for other cities seeking KBUD.

KNOWLEDGE CITY FORMATION AND KNOWLEDGE-BASED URBAN DEVELOPMENT

KC can be seen as an umbrella concept for geographical entities, which focuses on knowledge creation, and covers other knowledge zones such as 'knowledge precincts', 'knowledge corridors', knowledge villages', and 'knowledge regions' (Dvir & Pasher, 2004). KCs are incubators of knowledge and culture, forming a rich and dynamic blend of theory and practice within their boundaries, and are being driven by knowledge workers through a strong knowledge production (Work Foundation, 2002; Yigitcanlar et al., 2008b). As societies become increasingly knowledge-based, the nature of city development changes because activities in the knowledge sector are becoming more important and they require conditions and environments which are very different from those required by commodity-based manufacturing activities in the production sector (Knight, 1995). Recent and growing literature indicates the importance of essential conditions for cities trying to change their status towards KC through KBUD strategies in various development levels

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