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## An approach for promoting urban and architectural potentials for supporting knowledge economy, case study: Brisbane

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### Abstract

With the emergence of various environmental, economic, and social problems in the beginning of the 21<sup>st</sup> century, many countries and international organizations turned to adopting the concept of Knowledge-based urban development (KBUD). To achieve the concept of KBUD and turn a city into a Knowledge city (KCs), the urban and architectural potentials are upgraded for enhancing knowledge economy forming. This paper addresses the theoretical side of the KBUD concept, in an attempt to establish a clear vision of the KBUD concept and of KCs' urban and architectural potentials. Also mechanisms for upgrading Brisbane potentials are analyzed.

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### 1. Introduction

In the late 1990s, some urban development concepts were developed. It was indicated that the future of cities and urban regions was turning into attracting, generating, and enhancing creation, knowledge, and innovation (Yigitcanlar, 2011a). In the middle, the KBUD concept emerged as a new form of urban development in the 21<sup>st</sup> century; a development that achieve social, economic welfare and environmental sustainability of contemporary

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cities (Yigitcanlar, 2007). This was accompanied by development of several related concepts. The term Knowledge-based economy or Knowledge economy was coined. In this kind of economy, knowledge-related activities became a tool for creating job opportunities and wealth, and achieving sustainable economic growth (Yigitcanlar, Velibeyoglu, & Martinez-Fernandez, 2008). It was realized that such development is related to changing concept adopted: from industrial communities that rely on transforming industries and raw materials, to the knowledge communities that depend on knowledge and intellectual capital as basic pillars of the society and the main production component (Stock, 2011).

In the Knowledge economy era, cities started to increase their investments in the physical, social, and knowledge infrastructure for enhancing, attracting, and retaining talents. Knowledge-based development is a system that supports Knowledge economy and a new method of planning and development that turns cities into globally competitive ones (Yigitcanlar & Sarimin, 2010). Knight was the first to coin the concept of KBUD. He indicated the KBUD is a process where citizens take part in developing their cities through enhancing cultures and knowledge production in the city. Yigitcanlar described KBUD as the knowledge development model in the knowledge economy era. It aims at achieving economic welfare and environmental sustainability, and establishes the optimal social/spatial regime of a city. Also, he stated that KBUD is a methodology for knowledge production; one that aims at enhancing knowledge production and spreading while maintaining the environment and achieving social and economic security (Yigitcanlar, Lonnqvist, Kapyla, & Salonijs, 2012). In 2000, the OECD defined KBUD as decisive set of strategies that seek to achieve quality of life (Yigitcanlar, 2011b). In the mid-2000s, Tan Yigitcanlar reformulated the concept of KBUD as a strategic tool for developing and enhancing the competitive power of cities in the context of KBUD (Yigitcanlar, 2011a). KBUD aims at achieving the following (Yigitcanlar & Lee, 2009) (Yigitcanlar & Sarimin, 2010) (Yigitcanlar, 2007):

- Sustainable urban development.
- Making cities vivid with cultural life.
- Boosting the quality of life through providing services needed for achieving social development.
- Achieving a sustainable, safe knowledge economy.
- Designing a knowledge city that encourages, produces, and expands knowledge work.

## **2. The knowledge-based urban development Pillars**

Knowledge-based urban development may be regarded as a four-pillar model. These pillars are: economic development, socio-cultural development, environmental-urban development, and institutional development (Yigitcanlar, 2010).

### *2.1. Economic Development*

It aims at creating a knowledge-based economy that depends on knowledge creation, assessment, and marketing. In the knowledge era, success in domestic economic development is closely related to the ability of a city to adapt its potentials to knowledge economy, and invest in its intangible assets (Yigitcanlar, 2011a). Literature indicates that a city's economic level can be judged – in the knowledge era- by tracing the following: GDP, growth in domestic product, spending income available, foreign investments, spending on R&D, patents, and knowledge-intensive services (Yigitcanlar, 2010).

### *2.2. Socio-Cultural Development*

It aims at achieving progress towards creating a knowledge economy that generates, distributes, publishes, and uses knowledge and information; which is the economic and cultural activities driving power. So, it is necessary to increase individuals' skills as a means for social development (Yigitcanlar, 2007). According to literature, the main indices used in assessing socio-cultural fall under socio-cultural capital indices: Educational attainment in the city, Main university stature in the city, Social and cultural diversity in the city, and residents' access to Broad Band Internet (Yigitcanlar, 2010).

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