Preface

Over the past twenty years, there have been intensive discussions about the importance of knowledge management in the business world. In recent years the conventional knowledge management approach has evolved into a strategic management approach that has also spread into other fields. As a result the new strategic management approach has found application ground and opportunities not only in the business world but also in other areas such as education, urban planning and development, governance and healthcare, and so on. The fact that major international organizations – such as the European Commission, the World Bank, the United Nations Organization, and the OECD – have adopted knowledge management frameworks in their strategic directions focusing on global development, is a clear indication that a strong link is established between knowledge management and knowledge-based development.

This new link created an appropriate environment for the advent of a new concept in the scientific and practitioners’ communities, the concept of so called “Knowledge City”. At the moment, the theme of knowledge city is an important focus of interest, discussion and research for many disciplines. When the concept of Knowledge City naturally expanded into city-regions and nations the wider concept of Knowledge-based Development (KBD) became prominent, giving room to the variation of Knowledge-based Urban (or regional / national/) Development.

The field of knowledge-based development faces, nowadays, the big challenge of making concrete and relevant contributions to the amelioration of societies (i.e. creating a Knowledge Society) and not solely to the promotion of competitive advantage for businesses. The momentum in the field of KBD becomes evident through the wealth of initiatives that an urban (e.g. Singapore, Barcelona), regional (e.g. Veneto Valley, Basque Country), national (Denmark, New Zealand) and supranational (European Union) levels flourish day by day. Every initiative sets its own limits as long as it corresponds to some of the levels mentioned above and reaches those limits as it develops the required capacities.

With the publication of the International Journal of Knowledge-Based Development (2009), which aims at bridging the theoretical and technical contributions of KBD and increasing the awareness of the role of knowledge cities and knowledge societies in the knowledge era, and the special issues of the Journal of Knowledge Management, the new field became a field of advanced study on its own accord.

Knowledge-Based Development for Cities and Societies: Integrated Multi-Level Approaches is a book aimed at enlightening the above concepts and challenges and therefore at enhancing the expertise and knowledge of scholars, researchers, practitioners, managers and urban developers in the development of successful knowledge-based development policies, creation of knowledge cities and prosperous knowledge societies. In particular, its specific purposes are:
• To create a large knowledge base for scholars, researchers, practitioners, managers and urban developers by introducing them to multi-level aspects of knowledge-based development and indicating other areas of fertile research;
• To develop scholars’, researchers’, practitioners’, managers’ and urban developers’ capacity in the design, implementation and application of knowledge-based development concepts, models, methods, policies for the creation of modern knowledge societies and cities; and
• To increase the awareness of the role of knowledge cities and knowledge societies in the knowledge era, as well as of the challenges and opportunities for future research.

The book presents insights gained by leading professionals from the practice, research, academic, and consulting side in the field. This is why it should be useful to a variety of target groups, which are interested in the interrelationships between knowledge management, knowledge-based development and urban development. The Foreword is written by a well-known and key pioneering contributor to both the theory and practice of intellectual capital and knowledge leadership Dr. Leif Edvinsson of Lund University, Sweden. The Afterword is written by a well-respected researcher and consultant Knowledge Management and Corporate Strategy Dr. J.C. Spender of ESADE, Spain and Lund University, Sweden. The book is divided into three sections, each one dealing with selected aspects of knowledge-based development.

SECTION 1: CONCEPTS, FOUNDATIONS AND FRAMEWORKS OF KNOWLEDGE-BASED DEVELOPMENT

The seven chapters in Section 1 present advanced theories and modern concepts in several fields of knowledge-based development. Chapter 1 aims to characterize KBD from the perspective of value systems. This chapter looks into the distinctive aspects of human knowledge-based or represented experience as the rationale for both Knowledge Management and Knowledge Based Development. The concept of KBD is introduced as a distinctive category and as the basis of a new social paradigm of special significance in view of both the current stage of human evolution and our impact on other Earth systems. The emergence and evolution of KBD as a field of study and practice is also overviewed.

Chapter 2 presents an advanced strategic framework for the development of successful Knowledge Cities (KCs). A set of hypotheses for the design, development and operation of successful KCs is proposed and validated through the analytical study of KCs cases’ support to these hypotheses, resulting to a strategic framework.

Chapter 3 assimilates the workforce in science and technology to the concept of knowledge workers. The authors compared the influence of criteria related to the quality of place on the mobility of students with other criteria related to career opportunities and to the social network. They collected the data through an on-line questionnaire and also proceeded to interviews with students in science and technology. The chapter presents the results of this research for Montreal.

Chapter 4 explores how proximity dimensions can favour the diffusion of knowledge between economic actors, focusing on the knowledge relationships established by a knowledge gatekeeper. In particular, the author formulated several hypotheses regarding the role of proximity dimensions (i.e. geographical, organizational, and technological) in affecting the establishment of gatekeepers’ knowledge relationships, taking into account their collaborative-non collaborative type and exploitative-explorative
nature. Adopting a patent-based analysis, the author tested the hypotheses on a research sample constituted by 527 knowledge relationships established by two distinct types of knowledge gatekeeper, i.e. a university and a firm.

Chapter 5 examines the mutual interaction between knowledge-based development in local and regional level in two different sections. The first section builds upon the third wave of economic development supporting the growth of cluster of related firms and relates it to an empirical case study of knowledge-based community development in Queensland, Australia. It concludes that knowledge-based local developments do not evolve without a regional support network. The second section reviews the “Triple Helix” of university–industry–government collaboration as the basis of knowledge-based regional development in the investigated case study.

Chapter 6 explores the emerging issue of knowledge-based urban development and scrutinizes the development of knowledge community precincts that have important economic, social and cultural dimensions on the formation of competitive and creative urban regions. The chapter also sheds light on the new challenges for planning discipline, and discusses the need for and some specifics of a new planning paradigm suitable for dealing with 21st Century’s socio-economic development and urbanization problems.

Chapter 7 introduces a model for developing a prosperous knowledge city through knowledge and innovation. The model consists of five components that are most important for cities pursuing towards prosperous Knowledge Cities including: developing creative environments, knowledge creation, skills, collaboration/partnership, and leadership.

SECTION 2: MULTI-LEVEL APPROACHES OF KNOWLEDGE-BASED DEVELOPMENT

The second part of this book moves from a more theoretical focus to consider practical multi-level approaches of knowledge-based development.

The first chapter in this section, Chapter 8, discusses the discipline of Personal Knowledge Management (PKM) as a dimension that has been implicitly present within the scope and evolution of the Knowledge Management movement. Moreover, it is recognized as the dimension that brought forth Knowledge-based Development schemes at organizational and societal levels. The chapter concludes with some considerations on the individual development that enables PKM to become a key element in the knowledge citizen’s profile, such as the building block or living cell that triggers KBD at organizational and societal levels.

Chapter 9 focus on what deep knowledge is and the environment needed to maximize its contribution to the health and growth of societies. It introduces knowledge attractor network teams as sources of power for community sustainability.

Chapter 10 analyses knowledge worker studies in diverse disciplines, in order to determine the requests. The author proposes a framework to clarify the skill requirements by integrating the requests at operational, team, organisational and inter-organisational levels with drivers provided by educating, attracting, motivating and retaining strategies. The framework facilitates employing the right employee for the right post while balancing the requests and the performance measures.

Maximisation of Knowledge-Based Development (KBD) benefits requires effective dissemination and utilization mechanisms to accompany the initial knowledge creation process. Chapter 11 highlights
the potential for interactions between Supply Chains (SCs) and Small and Medium sized Enterprise Clusters (SMECs), including via ‘junction’ firms which are members of both networks, in key elements of KBD, in order to facilitate such effective dissemination and utilization of knowledge.

Chapter 12 addresses the provisions and conditions of the knowledge-based development in the Helsinki metropolitan area, Finland. It looks at linkages between regional (urban) development and welfare state elements supported by local and national policies. The authors concentrate on one hand on urban and regional policy tools, and on the other to education, because together they provide a platform for building a knowledge-based society. They also explore the current condition of selected creative and knowledge-intensive employment in the Helsinki metropolitan area.

Chapter 13 explores the role of the built environment in the creation, cultivation and acquisition of a knowledge base by people populating the urban landscape. It examines McDonald’s restaurants as a way to comprehend the relevance of the physical design in the diffusion of codified and tacit knowledge at an everyday level. Through an examination of space at a localised level, this chapter describes the synergies of space and the significance of this relationship in navigating the global landscape.

Chapter 14 discusses the role Communities of Practice (CoPs) to share knowledge in a knowledge city. In a knowledge based development approach to modernise societies, CoPs can be used as the originators of change and innovation for a knowledge city.

**SECTION 3: GLOBAL BEST PRACTICES OF KNOWLEDGE-BASED DEVELOPMENT**

The final part of this book considers some case studies and best practices of knowledge-based development.

Singapore’s commitment to knowledge-based economy (KBE) development in the past decade has enabled it to make a rapid and successful transition to knowledge-based city. Chapter 15 focuses on how Singapore government has forged an environment that is conducive to innovations, new discoveries and the creation of new knowledge. In the process, Singapore has emerged as one of the top knowledge-based cities in the world through various frameworks used globally.

Chapter 16 presents the case of Israel as a knowledge-based region, as well as critical success factors for regional innovation systems. Based on Israel’s experience, the authors discuss key issues related to regional innovation systems, knowledge creation, and intellectual capital audits.

Chapter 17 provides an overview of the lessons from Multimedia Super Corridor, Malaysia as one of the first large scale manifestations of knowledge-based urban development in South East Asia. The chapter investigates the application of the knowledge-based urban development concept within the Malaysian context, and, particularly, scrutinises the development and evolution of Multimedia Super Corridor by focusing on strategies, implementation policies, infrastructural implications, and agencies involved in the development and management of the corridor.

One of the difficulties in creating and sustaining knowledge cities is the lack of benchmarks to identify those cities and regions that are generating knowledge-driven initiatives, triggering development and collective value. One of such benchmarks is the value-based Generic Capital System (GCS) taxonomy. The rigorous application of GCS to cities in European contexts has already yielded its initial fruits, with Manchester as one of the cities in which a deeper perspective can be gained through the GCS lens. In