ABSTRACT

This chapter explores Sydney’s knowledge-based development, surveying reasons for its concentration of such development including the role of planning. Sydney’s high-knowledge industry concentration is seen as the product of the city’s commercial leadership, its high share of transnational corporations associated with Sydney’s global economy role, and its high proportion of skilled immigration. Such factors have resulted in a knowledge sector that is concentrated around central and near northern Sydney, and in the formation of several distinct clusters of knowledge-based industries. Case studies of the information technology and telecommunication industry and the multimedia industry suggest that Sydney’s concentration of corporate headquarters has been a key driver of growth in these industries, while the presence of a large pool of computer-based skills has stimulated and fed multimedia development. Metropolitan planning strategies have lacked firm principles for the development of knowledge-based industries. Instead, planning for these industries focused on a series of ad hoc place-specific initiatives that have been much less significant than market forces in supporting knowledge-based development in Sydney.

INTRODUCTION

This chapter explores Sydney’s knowledge-based development, surveying reasons for its concentration of such development including the role of planning. The chapter focuses on knowledge industry clusters, and includes case studies of Sydney’s information technology and telecommunications industry and multimedia industry clusters. It also discusses the relatively limited
role of spatial planning in Sydney’s knowledge sector development.

The objectives of the chapter are:

- To identify the scope and nature of knowledge-based economic development in Sydney.
- To explain the level and nature of Sydney’s knowledge-based development in general terms and by reference to two industry case studies.
- To analyze the role of spatial planning in the development of Sydney’s knowledge-based industries.
- To suggest future directions for Sydney’s spatial planning for knowledge industries and for research on these industries in contexts such as Sydney’s.

BACKGROUND

Knowledge Sector Development and Location under Contemporary Capitalism

The economies of affluent Western economies now rely increasingly on production sectors deriving their central competitive advantage from the development and application of new knowledge. With the global shift of manufacturing activities to developing countries, the competitive advantages of the West have focused on knowledge. These tendencies have been aided and abetted by intensified transport and communication advances, and the shortening of production cycles, facilitated by new technology and by social preference for more differentiated products. The more globally integrated economy of the 21st century has generated accelerating demand for, and use of, new knowledge to underpin the generation of new profit sources via the development of new products that have in turn fuelled greater competition. The new knowledge thus incorporated has been both technological and, increasingly, design-based (Lash & Urry, 1994).

In the latter decades of the 20th century, the growth of knowledge-intensive products in the West was argued to be central to a paradigmatic set of economic transformations associated with the transition to a so-called post-Fordist economy and a flexible accumulation mode of production (Piore & Sabel, 1984; Harvey, 1989). In this regime, spatial and technical flexibility of production was combined with the imposition of more flexible labor practices to allow more rapid uptake of new technology and design. Flexible accumulation also involved the contracting out of non-core activities (Freedman, 2004). In knowledge-based industries, this has seen the emergence of specialist knowledge producers, such as chip designers and software programmers, that have allowed cutting-edge concepts and ideas to be rapidly incorporated into new products. In addition, the creation of floating pools of specialized knowledge workers relying on episodic work contracts has allowed the rapid application of specialist skills to new knowledge products.

These trends have resulted in the emergence of groupings of knowledge-based firms at varying levels of spatial concentration. In many instances, the emergence of complexes of specialized knowledge-based, interlinked firms has had a spatial expression similar to that of 19th century Marshallian industrial districts, which were marked by dense input-output linkages between small specialist firms that were in close proximity to reduce transaction costs. Contemporary knowledge-based clusters of firms also have a tendency to concentrate spatially to reduce transaction costs, but also to share common facilities, draw on the same skilled labor pool, share tacit knowledge, and be better aware of developments in competing firms (Porter, 1990, 1998). Knowledge clusters also may develop because firms can take advantage of wider agglomeration economies generated by large cities, such as highly skilled labor used by a range of advanced