



Luring best and brightest

Cities are in a global competition to develop knowledge-based services economies, writes **Joanna Mather**.

Around the world, cities are racing to carve out new competitive advantages in response to increasingly globalised and knowledge-based economies.

Australia is no exception, and old rivals Sydney and Melbourne are head-to-head in the battle to become Australia's first global knowledge city. But Brisbane, Adelaide and Perth are in with a chance too, urban policy researchers say.

According to the experts, who name Boston, Barcelona and Singapore as good examples, a knowledge city is a place where highly creative people congregate to live, work and innovate.

Characterised by a concentration of knowledge-intensive industries, these cities typically feature several universities and significant research and development activity (R&D), often in the form of science parks or technology precincts.

Knowledge cities are economically successful, culturally vibrant and, importantly, socially progressive.

"The five major cities of Australia are in a global battle with other urban conglomerations for knowledge-based development, investment and talent," says urban development researcher and co-editor of two new books on the knowledge city phenomenon, Tan Yigitcanlar.

"Sydney and Melbourne have long been linked, one way or another, to the global system. Brisbane's international links are the more recent... nevertheless it is part of the competition to become Australia's first globally recognised knowledge city. Perth and Adelaide also want to reap the benefits such recognition would bring."

The worldwide impetus for change comes as traditional commodity-based modes of production give way to economies

based on the generation and creative use of knowledge.

From Sao Paulo to Singapore, Barcelona and Texas, policymakers are looking to build competitive advantage in many areas, including information and communications technology, biotechnology, nanotechnology, design, filmmaking, the arts and culture.

The term knowledge city replaces earlier articulations, such as "technopolis" and "ideopolis".

Other variations on the theme include education cities, smart cities, as well as knowledge regions – Oxford and Cambridge in the UK, for example – knowledge corridors and knowledge villages.

"There are a whole series of terms that have emerged that, in the end, get to the same set of ideas," says Asian urban policy researcher and deputy vice-chancellor (international) at Flinders University, Dean Forbes.

"It's about cities finally coming to terms with the fact that the services sector is the core of their economy and those services at the top end are increasingly knowledge-based."

The research effort is as diverse as the semantics and knowledge cities have captured the imaginations of architects, economists, geographers, sociologists, urban planners, educators and others.

According to Yigitcanlar, who is a lecturer in the school of urban development at Queensland University of Technology, the "knowledge-based urban design" paradigm is gaining acceptance among international organisations such as the World Bank, Organisation for Economic Co-operation and Development and European Commission.

Although theories about knowledge-city development are clearly still in their infancy, consensus seems to be emerging on several important points: the need

for socio-cultural vibrancy and the presence of educational institutions, particularly universities.

Expensive infrastructure and piles of investment capital are not enough – what cities need is the X-factor, says University of Melbourne higher education professor Simon Marginson.

"Unless you can attract really creative people you're not in this game," he says. "You need places where really creative people can rub shoulders and fire off each other."

Marginson, co-director of the university's Centre for the Study of Higher Education, says San Francisco is a good example of a city that has "the vibe".

"Foreigners from all over the world go to San Francisco and fall in love with the place. If Melbourne and Sydney really want to play in this pool, they've got to be places people really get addicted to."

Marginson, whose latest research looks at creative people and policies about creative work, says evidence suggests knowledge cities require a dynamic mix of people in the arts, humanities and social sciences and science and technology.

"It's not just about investment money," he says. "In Japan, they've got more money invested in innovation than they seem to get results, whereas you go to Copenhagen and they have results but don't seem to have much money. [In Copenhagen] you have a more lively urban culture across the board, from the sciences to the arts, and there is a real spirit of creativity."

Universities are widely acknowledged as key components of knowledge cities as they are magnets for international students, who go on to become knowledge workers, and act as incubators for new knowledge.

It's an idea Melbourne universities in particular have been eager to embrace.



The City of Melbourne and Melbourne Vice-Chancellors Forum joined forces to open an office of knowledge capital, declaring their intention to position Melbourne as the "Boston of the southern hemisphere".

The aim is to advance the cause via events such as conferences and dialogue with state and federal governments, business and industry

In the race for global knowledge-city status, Sydney is probably ahead in the global linkages stakes but Melbourne leads on the cultural front, Yigitcanlar says.

Indeed, Melbourne was among the nominees in the inaugural Most Admired Knowledge Cities index (MAKCi).

Compiled by the World Capital Institute and Teleos, the index scored Singapore as the world's most admired knowledge city, followed by Boston and Barcelona in second and third places respectively.

Melbourne was on the shortlist with 24 other nominees.

MAKCi set out to "establish the relative capacity of an urban community to determine its course and rate of change in a knowledge-based world".

A panel of judges measured the performance of nominee cities against eight drivers, including identity, human capital, material capital and knowledge capital.

In a new paper to be published in the academic journal, *Cities*,

Yigitcanlar concludes: "There is good evidence from the Melbourne experience that education and R&D institutions, three-tier government and communities are altogether supporting the emergence of Melbourne as an emerging knowledge city."

He says the impact of a university campus on knowledge-based urban development can be seen in the Parkville knowledge precinct, which is home to the University of Melbourne.

Within the precinct, demographics show a higher than average percentage of residents in the 20 to 39 age bracket, a high proportion of foreigners, a high proportion of university students, and a high proportion (40 per cent) classified as knowledge workers.

"The research universities, particularly Monash University, RMIT and University of Melbourne, play a pivotal role in the development of the KC by both educating and training the required workforce and professions for economic development through technology, and achieving scientific significance," Yigitcanlar writes.

"They create, develop and maintain new technologies for emerging industries, and also contribute to an improved quality of life and culture within the city. In addition, they attract large technology companies through industry collaboration schemes."

What policymakers also know is knowledge cities cannot be created from scratch, nor can one success story simply be transplanted to another location.

"The particular thing about a knowledge city is that it is very difficult to design from scratch because decision makers don't really control the parameters," says visiting Copenhagen Business School professor Jan Mouritsen.

"You need to draw on what is already there. What they try to do [in Europe] is to cultivate things they already have and try to nourish them so the things they already have come together."

Yigitcanlar agrees, although he says there are a number of broad qualities that successful knowledge cities have in common — cutting-edge technology, innovation, cultural facilities and quality education, for example.

Yigitcanlar has written a new paper on Brisbane. The paper, to be published in *The Journal of the Local Economy Policy Unit*, says Brisbane has "emerging strengths in a number of dynamic knowledge-industry sectors", including biotechnology and biosciences, aviation and aerospace, and information technology.

These are sectors "which have the potential to make Brisbane a global player, particularly in the Asia-Pacific region".

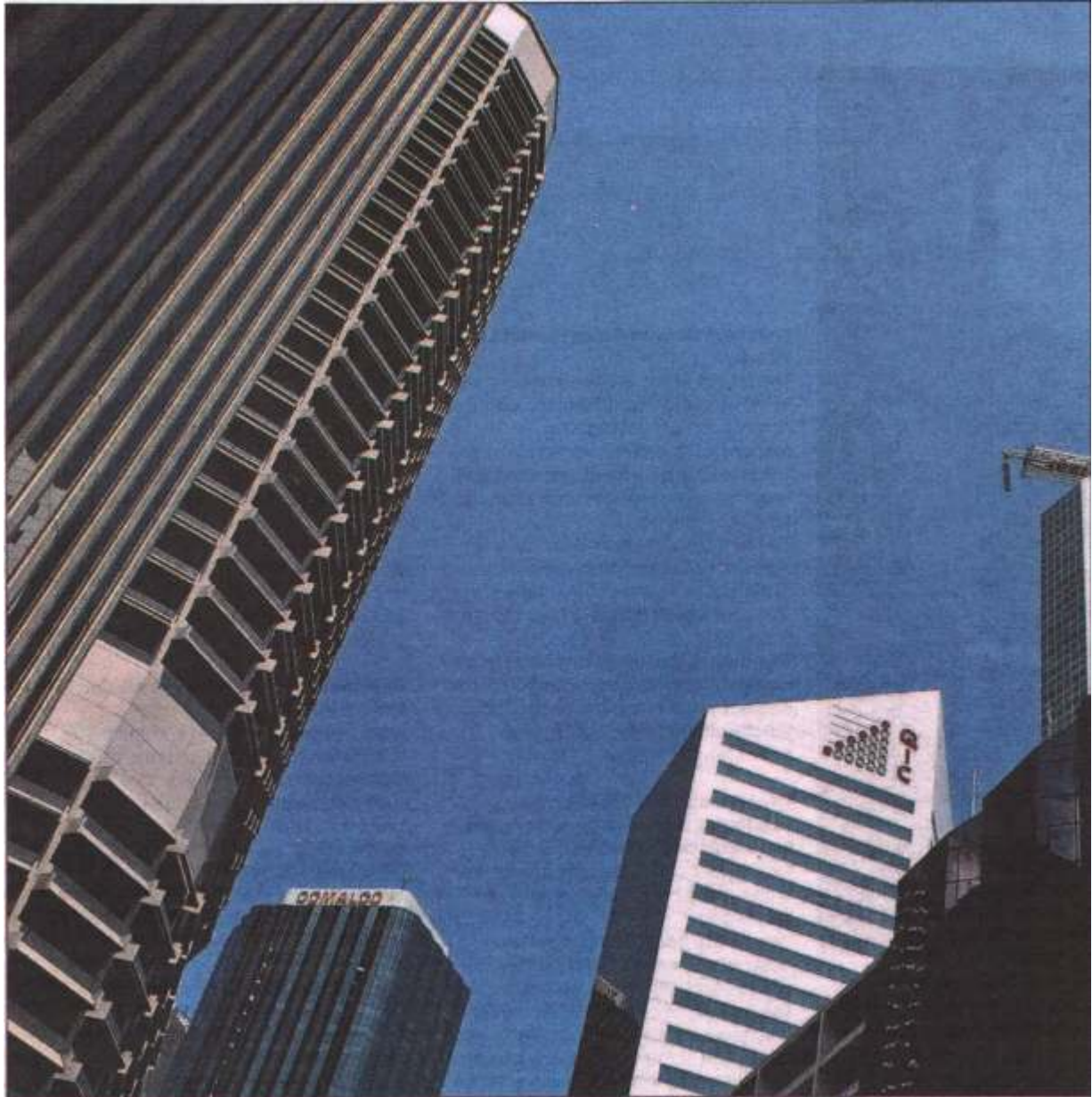
A knowledge city is very difficult to design from scratch because decision makers don't control the parameters.

Jan Mouritsen, Copenhagen Business School professor



Melbourne aims to be 'the Boston of the southern hemisphere'.

Photo: JOE ARMAO



Researchers say Brisbane has joined the race to become Australia's first globally recognised knowledge city.

Photo: GLENN HUNT