

2<sup>nd</sup> annual

**City & Urban  
Development summit  
2008**



Learning Cities  
International

# Sustainable Urban Development: How Cities Grow Knowledge Industries

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# Outline

- Timely conference
- Sustainable cities and climate prosperity
- Urban triple bottom lines
- Growing knowledge industries
- Attracting knowledge industries
- Global partnerships for learning cities
- Discussion

# Our conference themes

- Sustainable urban development and growth
- Living and working environments, urban design
- Innovations in development, creating whole cities
- City centres and metropolitan centres
- Commercial development, housing, green buildings
- Urban renewal and regeneration
- Infrastructure development
- Integrated transport systems
- Energy efficiencies and solar cities
- Planning regulation, integrated case management

# A vital time for cities

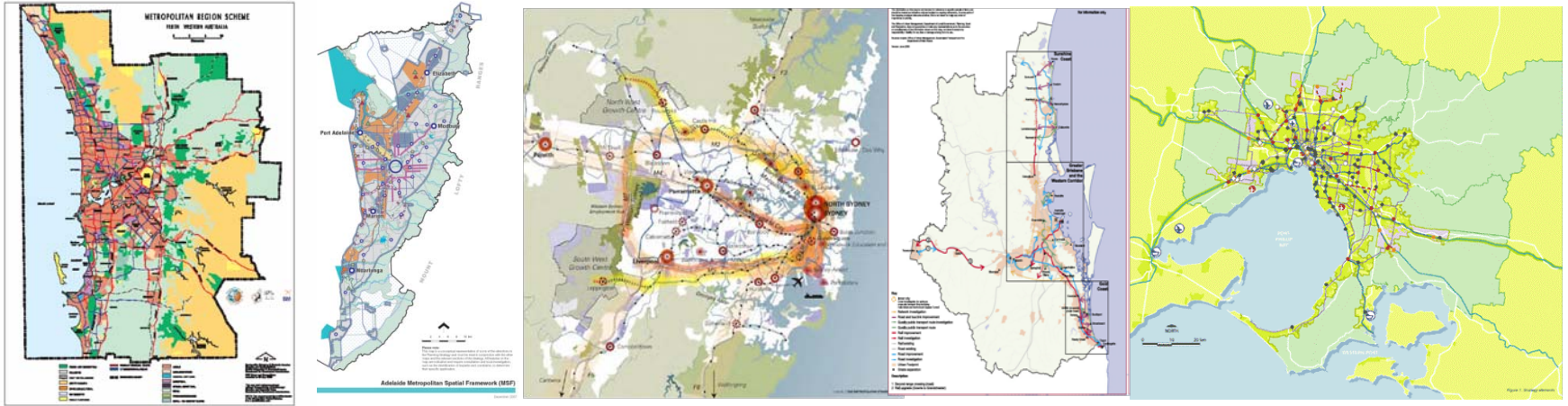
- Re-entry of Federal Government
- State and local governments trouble coping
- No map yet for cities and climate change
- Too fast for comfort: peak oil, global economy, mitigation and adaptation
- Urban 'liveability' ≠ urban sustainability
- Planning and development assumptions under challenge

# National policy moves again

- Re-entry of Federal Government involvement
- Department of Infrastructure, Transport, Regional Development and Local Government; Dept of Climate Change
- Infrastructure Australia and Building Australia Fund
- Major Cities Unit within Infrastructure Australia; intention to coordinate but how?
- COAG and > 40 Ministerial Councils; the new federalism
- What will be the **explicit** national urban policy?
- What **should** it be? What does this conference say?
- And what will be the **implicit** national urban policy (e.g. migration)?

- States are *de facto* metropolitan regional authorities, Brisbane excepted until recently
- Macro-metropolitan planning: picking up the linking regions (catch-up e.g. SE Queensland)
- Trouble coping, cost of catch-up – metro planning, infrastructure costs escalating including now the costs of PPP financing, opaque no more
- Revival of regional interests e.g. WSROC (they never went away)
- A new federalism – role of cities?
- Local authorities as under-rated sources of expertise, including of international relevance

# Metro planning consensus



- Australian metro plans have common features: growth boundaries, controlled suburban expansion, focus on transit-oriented development, compact urban form, increasing density, green wedges
- This is the Seattle / Portland / Vancouver consensus too
- But is it right for the next phase, for serious sustainability?

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- ‘Sustainable development’: meet the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland).
- ‘Cities’ can be built up regions or municipal jurisdictions – in Australia, it is often the States that enter into international urban partnerships as if they were cities

# Climate Prosperity

- Project is Initiative of **Global Urban Development**
- Barrier to investment and policy change for mitigating and adapting to climate change: **fear** (fear of cost, fear of disruption)
- Climate prosperity strategy:
  - Expand production of green technologies
  - Replace fossil fuels with energy efficiency and renewable sources
  - Strengthen green infrastructure and reduce vulnerability
  - Improve urban quality of life for knowledge economy
- Partnerships to design and implement many **Climate Prosperity Strategies** as State and Local initiatives

Protecting against climate change by improving urban sustainability can be good for the economy

- expanded production of “green” technologies
- replacing fossil fuels with energy efficiency renewables
- “green” infrastructure to reduce vulnerability
- greener, cleaner, conserving existing land, buildings, pedestrian-friendly urban environment to strengthen quality of life to attract and retain a highly skilled workforce

## Climate Prosperity Project

- Create hundreds of state and local Climate Prosperity Partnerships to design and implement hundreds of Climate Prosperity Strategies
- essentially economic development strategies in which sustainability is the centerpiece.
- GREEN SAVINGS/GREEN JOBS/GREEN PROFITS, across the entire economy among business, government, and families

# Urban climate change

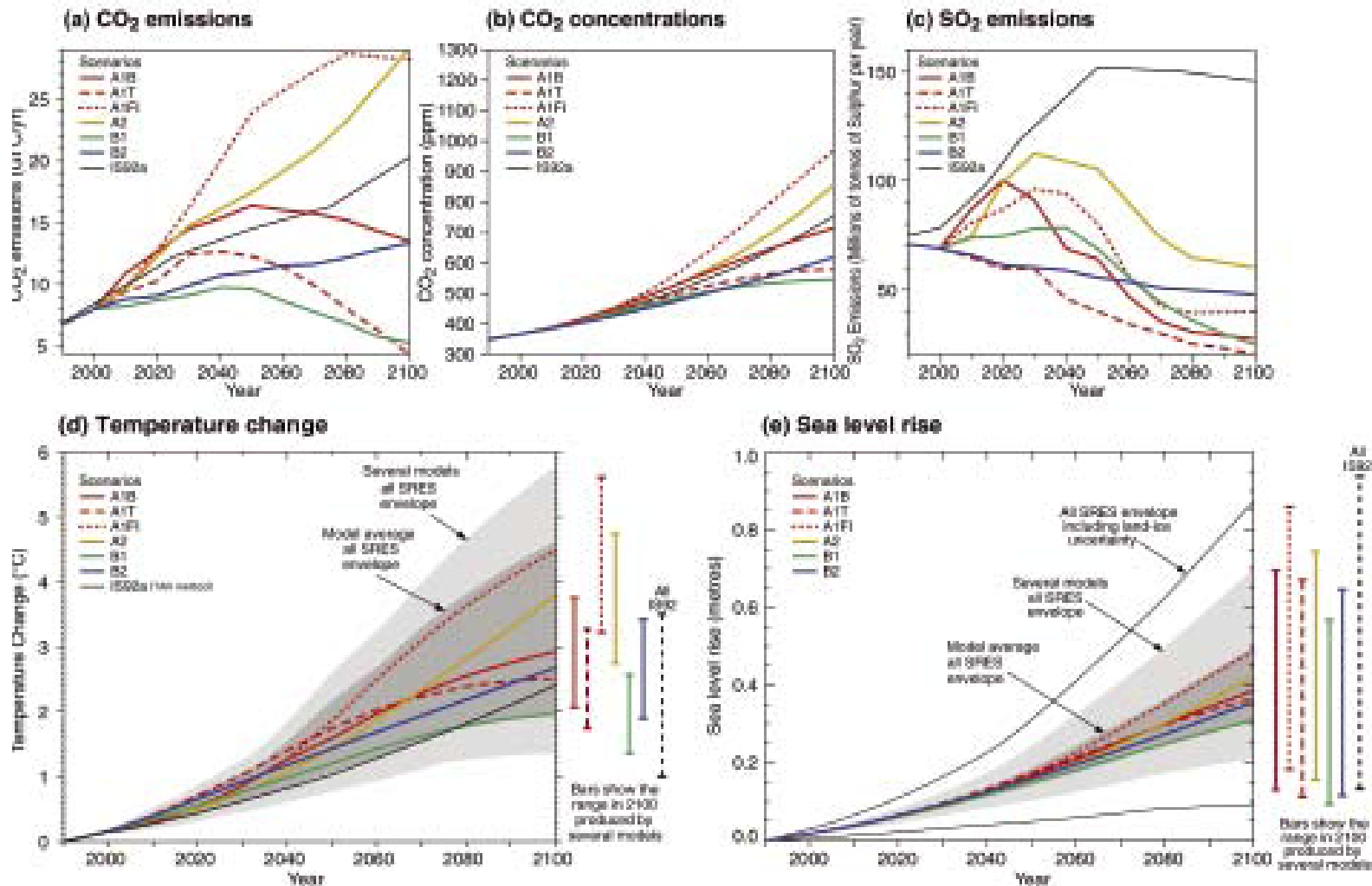


Figure 1-A1: (a) carbon dioxide (CO<sub>2</sub>) emissions for the six illustrative SRES (2000) scenarios, and the superseded IS92a scenario, (b) CO<sub>2</sub> concentrations, (c) anthropogenic sulphur dioxide (SO<sub>2</sub>) emissions, (d) and (e) show the projected temperature and sea level responses, respectively. Source: IPCC (2001).

## **Increases in temperature**

- ↑ Increase peak summer demand for electricity, ↓ peak demand for winter heating.
- Damage to energy and transport infrastructure and increased maintenance.
- ↑ cost of cooling buildings and/or retrofitting.

## **Extreme temperatures, especially heat waves: health effects**

- ↑ vector-borne and food-borne diseases and into new areas.
- ↑ risk of bushfire, more frequent dust storms.
- Water reservoirs more susceptible to toxic algal blooms.

## **Altered rainfall patterns :**

- Changed availability and quality of water supply, ↓ water quality and ↑ cost of green spaces.
- Intense rainfall events > coping capacity of current stormwater, wastewater and sewerage systems, contaminated water supply, concentrated pollutants and ↑ damage to infrastructure.

## **Altered frequency of extreme weather events:**

- ↑ incidence of disruptions to key services, damage to infrastructure and wellbeing, insurance costs, accident rates, post-event disease outbreaks.

## **Sea level rise:**

- Damage to coastal buildings and infrastructure through storm surges, flooding, salinity.

# Climate change adaptation

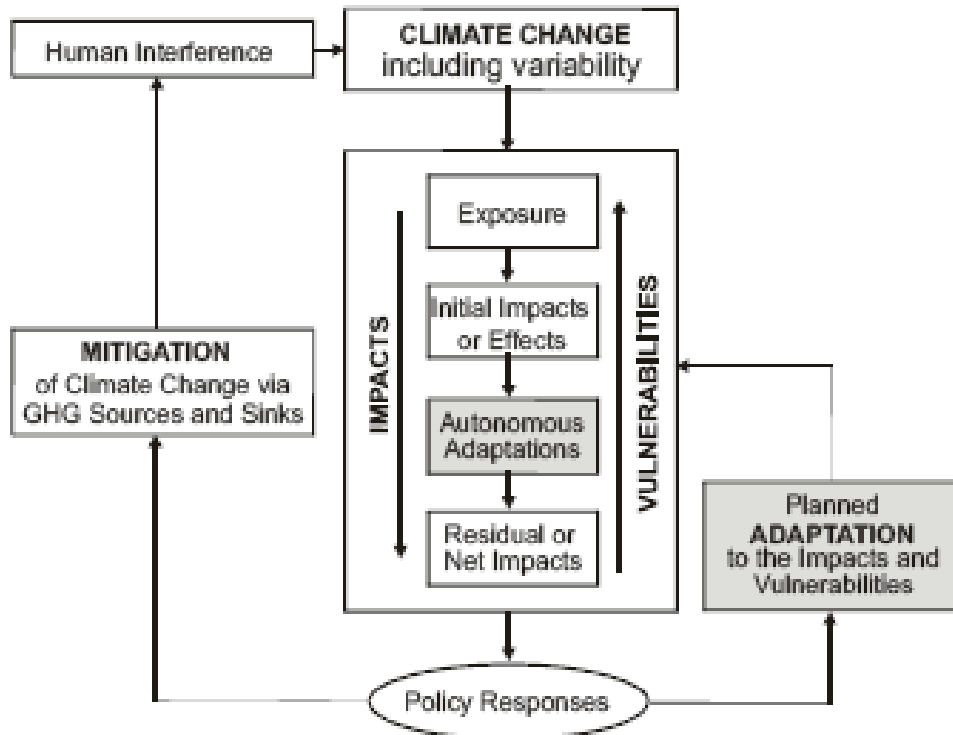


Figure 1: Adaptation in climate change (source Smit and Pilifosova)

Urban adaptation becomes one of enhancing adaptive capacity overall through strategy for managing risks and vulnerabilities rather than classifying particular adaptive responses

# Urban adaptation strategies (UKCIP)

Adaptation type	Examples
Share loss	Insurance-type strategies
Bear loss	Loss of coastal areas to sea level rise or erosion
Prevent the effects: structural and technological	Engineering solutions
Prevent the effects: legislative, regulatory and institutional	New ways of planning, new methods of dealing with uncertainty, changes standards
Avoid or exploit changes in risk	Migrate out, $\Delta$ location, improve forecasting, contingency plans
Research	Provide better knowledge, information, risk-based assessments
Education, behavioural	Lengthen planning timeframes, even out stakeholder awareness, $\uparrow$ public awareness

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## **Cities, like businesses, using new performance metrics e.g. through**

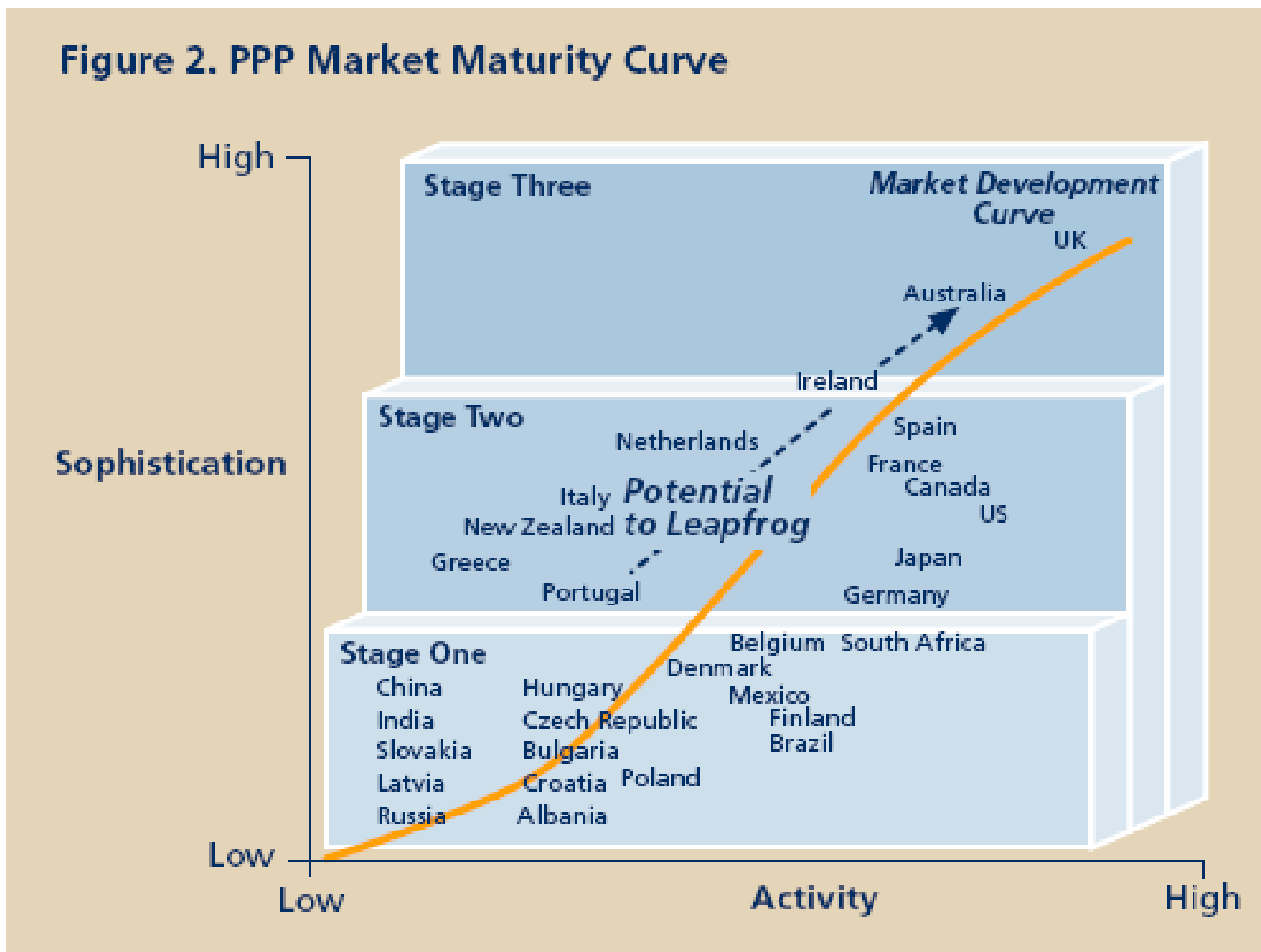
- Urban observatories – especially for Millennium Development Goals but not only e.g. Vancouver
- Global Reporting Initiative, Metropolis Commission 5 Initiative
- Many city ranking regimes

## **Three key dimensions - triple bottom line monitoring**

- Financial and economic sustainability:
  - Australia among leaders eg PPP know-how, urban development companies, business expertise (as in China, Gulf States)
- Social
  - Housing affordability
  - Intra-urban disparities
- Environmental
  - Ecological footprint, carbon neutrality

# PPP market maturity

(Source: Deloitte 2006: Closing the Infrastructure Gap: The Role of Public-private Partnerships)



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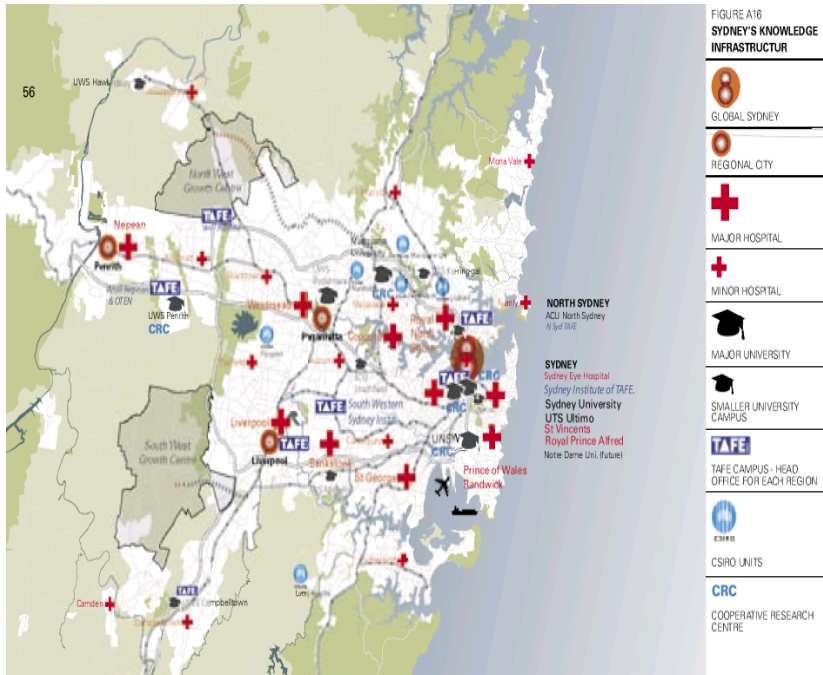
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- Cities exist for communication
- NYC “Knowledge in a hurry” Haig 1915
- Cities as hubs of intensive information, F2F / tacit communications, knowledge generation and exchange/ creativity
- Clusters and economies of agglomeration
- Foot looseness: in a flat world every city wants to be a spike
- Cities that learn
- What makes the winners?

## New plans pursue knowledge-intensive industries

e.g. Sydneys' 'City of Cities' recognises centrality of knowledge

e.g. Melbourne's Office of Knowledge Capital (City + Universities)



# Shared Leadership



- Hunger for change, triggering event, self-awareness
- Community buy-in
- Multi-sector lead group e.g. Committee for Melbourne
- Sustained over time
- Resourced for real projects

## Bilbao as a case

(Source: Campbell 2006)

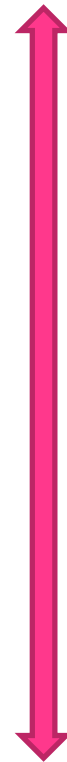
- Assembly of stakeholders → *Metropoli 31* (~1990)
- Revitalisation plan (1992)
- Many learning events, wider awareness
- Metro system, museum (1995-7)
- Bilbao 2010 strategy (1999)

- Ingredients of success
- Permeable learning institutions not only universities and R&D
- Liveability for knowledge workers
- Yes, talent, innovation and diversity à la Florida's creative class but more
- Intense connectivity including air
- 'Buzz' (Storper), urban design and environment, physical articulation – innovation happens at the intersections
- Precinct development, chambers of technology e.g. Melbourne's Knowledge Precinct

A spectrum of success – some examples

ENDOGENOUS

- Silicon Valley
- Haidian Beijing
- Bangalore and region
- Boston incl Rte 128
- Research Triangle
- Cambridge
- Brisbane
- Hsinchu
- Korea –KAIST campuses
- UAE – KDA+
- KAUST Jedda etc



EXOGENOUS

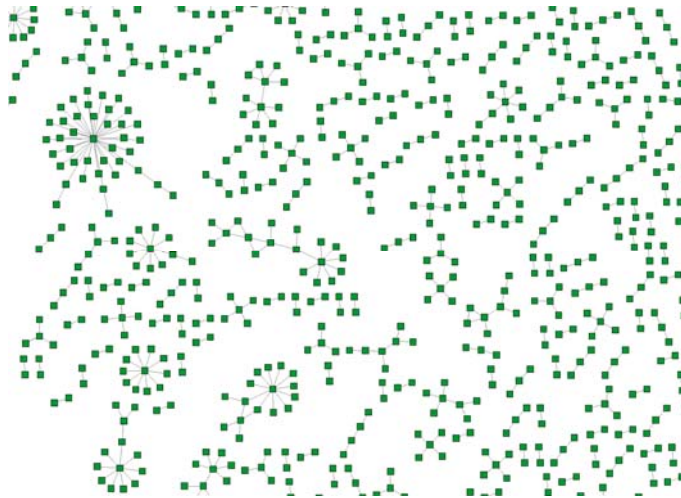
# Urban agglomeration

(Storper)

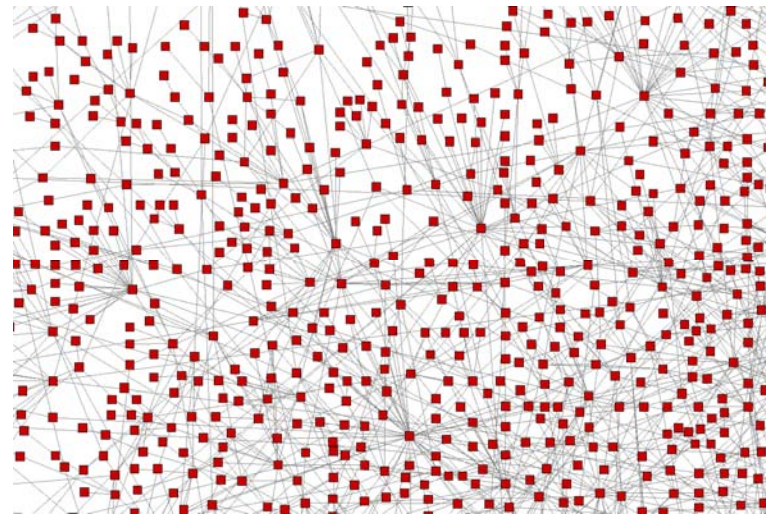
Type of mechanism	Explanation
Input-output linkages: backward	Firms search for suppliers, cluster
Input-output linkages: forward	Firms seek markets, specialise
Thick labour markets for specialised skills	High turnover and narrow fit
Urban labour markets as places where careers are formed and people 'learn'	Workers maximise lifetime career possibilities and wages
Technological spillovers between firms, within industry	Circulation of specialists or 'stars', high innovation, cities specialise
Technological learning and creativity: Jacobs	Diversity and the unexpected lead to inventiveness and creativity
Technological learning: Marshall	People and firms share 'atmosphere', interfirm clustering, benefits of proximity

# Linkage intensity counts

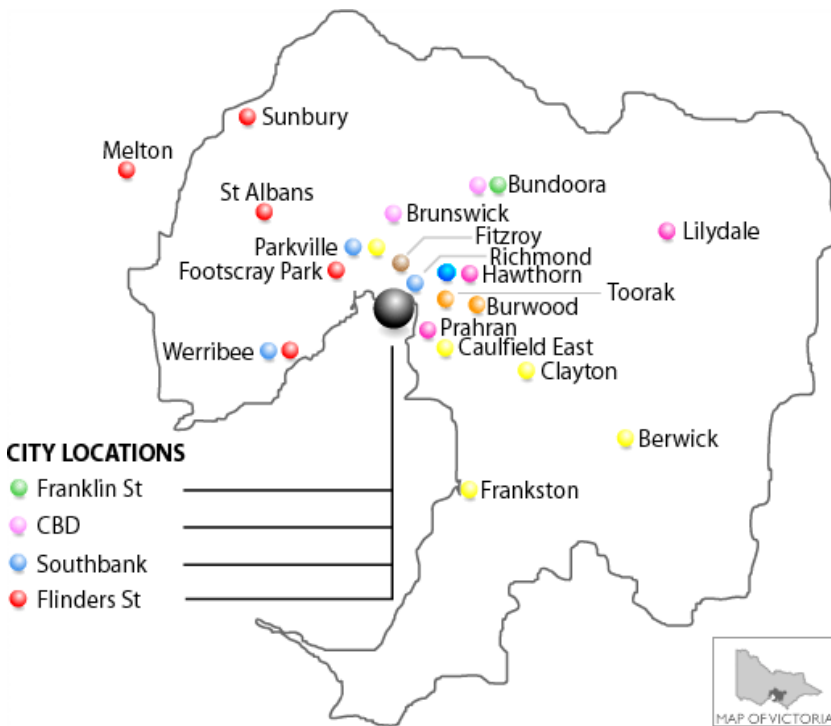
Cleveland's islands



Silicon Valley's intersections



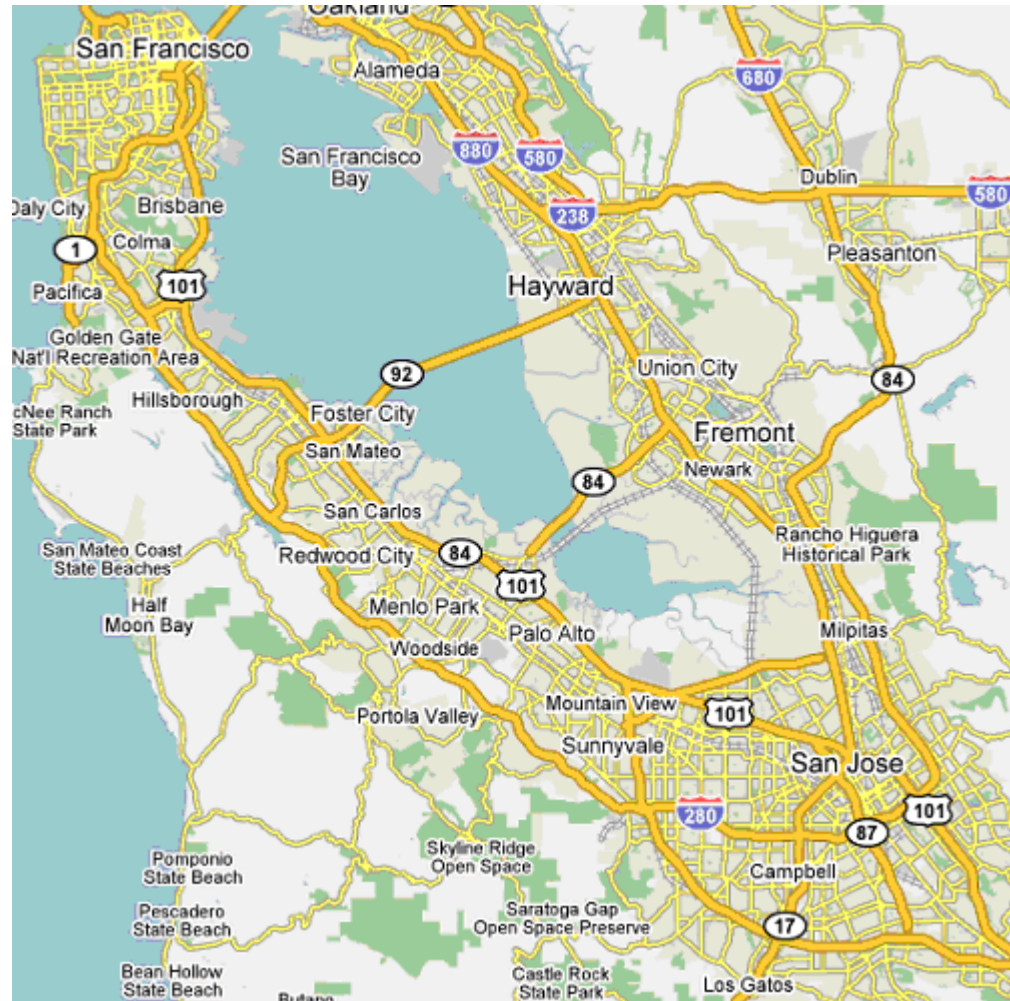
# University contributions



- Region's human capital, productivity and earnings
- Research and innovation
- Universities' role in new business development
- expenditure on goods and services in the region,
- Creation of campus environments
- Student spending
- University assistance to community economies
- Flow of knowledge workers to and from the region
- Community service
- Knowledge and information
- Arts and culture including major events.
- University fundraising, alumni
- Environmental performance of universities, architecture and urban precinct developments
- International activities in the region
- Sporting services, facilities and events
- Marketing and promotion

e.g. Bay Area  
– Santa Clara  
/ San Jose

to ...



...to totally planned science cities

e.g. KAUST and Knowledge  
Economy City, Saudi  
Arabia



# Universities and urban development

e.g. The U-Life South Korea plans to spend \$25 billion on New Songdo, the world's largest "ubiquitous city," with computers linking home life and life on its streets. Construction, 40 miles from Seoul, is to be done in 2014.



Illustration courtesy of Kohn Pedersen Fox Associates

# Cities that learn



## Seattle case study

- Trade Development Alliance missions, not necessarily senior or elite
- Not straight investment promotion, more the conscious learning from policy and practices of other cities: Amsterdam, Rotterdam, Kansai region, Hong Kong, Sydney, London, Shanghai, Barcelona, Munich, Melbourne, etc
- Build relationships, with a focus eg biomedical, female leaders, airports
- Make changes on return e.g. in governance after Barcelona
- Relationship within city leadership – now and future – important too

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# City networks and learning clubs





- Merger of International Union of Local Authorities and the United Towns Organisation.
- The mission of UCLG is 'To be the united voice and world advocate of democratic local self-government, promoting its values, objectives and interests, through cooperation between local governments, and within the wider international community.'

## Example

- Through its **Trilateral Municipal Exchange** program, a relationship among the cities of Portland, Oregon, USA, Mutare, Zimbabwe, and Sapporo, Japan.
- Exchange of information related to water quality and waste management.
- three-way internship on the use of the Internet to exchange information between the three cities.
- organizes contact between municipalities, funding agencies, training institutions, corporations, NGOs, and individuals worldwide for the exchange of information and expertise and to facilitate cultural contact.

## Methods

- With its regional affiliates organizes local government training courses, set up information and documentation services, conduct research and consultancy projects, and promote municipal international cooperation.



*To be the united voice and world advocate of democratic local self-government, promoting its values, objectives and interests, through cooperation between local governments, and within the wider international community.*

## Objectives

Democratic local self-government throughout the world.  
 Promote unity and cooperation amongst members.  
 Effective political representation of local  
 Source of key information regarding local government.  
 Source of learning, exchange and capacity-building.  
 Free and autonomous local governments and national associations.  
 Economic, social, cultural, vocational and environmental  
 development and public service based on the principles of good  
 governance, sustainability and social inclusion.  
 Race and gender equality and combat all forms of discrimination.  
 Reflecting the diversity of the local spheres of governance.  
 Promote decentralised cooperation, international cooperation,  
 twinning and partnerships between local governments and their  
 associations.

## Tasks

**Lobbying and advocacy to promote the role and status of local government**

**Develop policies on local government and international issues.**

**Collaborate with the United Nations and other organisations.**

**Develop projects between local governments and associations**

**Build an international platform of exchanges and partnerships**

**Support a strong network of local governments, services and products**

**Become a major world source of information**

**Disseminate information**

# UN-HABITAT Best Practices & Local Leadership



A global network of government agencies, local authorities and their associations, professional and academic institutions and grassroots organisations dedicated to the identification and exchange of successful solutions for sustainable development.

- documented and peer-reviewed best practices
- examples of good policies and enabling legislation
- case studies and briefs and
- transfer methodologies

**Dubai International Award for Best Practices** to Improve the Living Environment reviews and assesses best practice submissions through an independent technical committee and jury.

Those initiatives meeting the criteria for a best practice are included in the **Best Practices database**.

The lessons learned from selected best practices are analysed in **case studies and guides** and are **Transferred** to other countries, cities or communities through peer-to-peer learning and city-to-city transfers.

Together with **Urban Indicators Program**, this forms the **Global Urban Observatory**, UN-HABITAT's facility for monitoring global trends in sustainable urban development and evaluating progress in the implementation of the Habitat Agenda and Agenda 21. The policy implications and lessons learned from Best Practices are incorporated into Habitat's **State of the World's Cities** report.



THE GLOBAL  
COMPACT

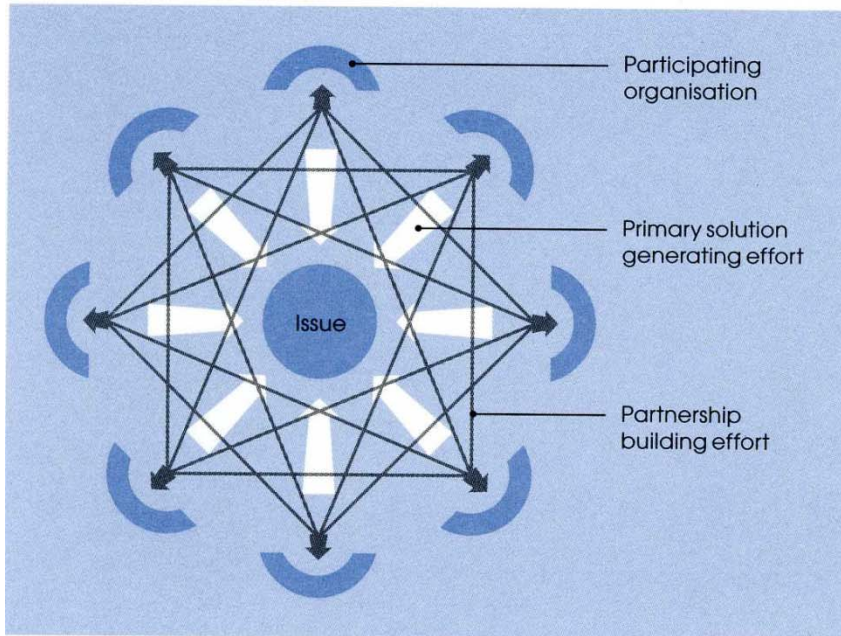
- The Cities Programme seeks to translate the overarching 10 principles of the UN Global Compact into innovative, concrete and sustainable solutions to intractable economic, social and environmental urban issues.
  - The Programme achieves these outcomes by identifying, harnessing, focusing and applying existing local capacity within business, government and civil society.
- **The Ten Principles of the Global Compact**
  - **Human Rights**
    - **1:** protection of human rights
    - **2:** avoid complicity in abuses
  - **Labour Standards**
    - **3:** freedom of association
    - **4:** the elimination of forced and compulsory labour
    - **5:** abolition of child labour
    - **6:** elimination of discrimination
  - **Environment**
    - **7:** precautionary approach
    - **8:** greater environmental responsibility
    - **9:** develop and diffuse environmental friendly technologies.
  - **Anti-Corruption**
    - **10:** Work against all forms of corruption, including extortion and bribery.

## UN Global Compact Cities Programme

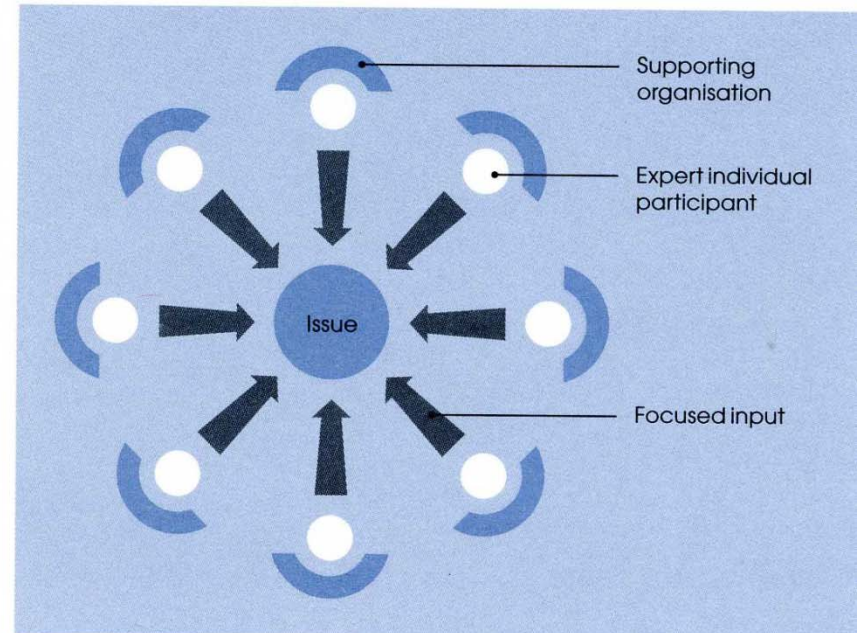
- **The UNGCCP seeks to improve the quality of urban life through partnerships between business, government and civil society**
- **Cities join and bring an otherwise-intractable problem**
- **Addressed by all sectors through a particular process – the ‘Melbourne model’**
- **Currently located with RMIT Global Cities Institute**
- **Results disseminated, cross-learning**

# Project focus concentrates effort

Traditional Cross Sector Partnership (CSP) -  
Diffuse Energy Model



All Sector Taskforce (AST) -  
Model of Optimal Stakeholder Focus



# Jinan, China: UN Traffic Safety Pilot City

## Background

- Road safety widespread and intractable of public protection issues.
- With road and traffic safety the challenge, the city of Jinan in China's eastern province of Shandong engaged with the UN Global Compact – Cities Programme in 2005.

## Action

- Applying the model initially piloted by Melbourne, Jinan has harnessed local, regional and national expertise in a collaborative cross-sector partnership to explore, develop and, ultimately implement a coordinated intervention to ameliorate road traffic dangers. Representatives exchange best-practice measures already in progress within Melbourne.
- The subsequent multi-sectoral strategic plan is intended to lead to an annual incremental reduction in road tolls.



- The Asia-Pacific Regional Network of Local Authorities for the Management of Human Settlement - bridging the gap between local governments, their national counterparts, non-governmental and international organisations.
- Committed to capacity-building at the city level. in urban planning and development.
- 107 members, most of whom are city governments and non-governmental organisations.
- Goal of making cities environmentally sustainable, economically productive, politically participatory, globally connected, culturally vibrant and socially just.

The flagship activity: Technical Cooperation between Cities in Developing Countries programme

Helps create affiliations between cities in the Asia-Pacific to foster best practices in urban governance and city development.

## CITYNET Clusters

- Environment, Water and Sanitation
- Solid Waste Management
- Management Resources for Good Governance
- Information Communication Technology
- Metropolitan City Government

# World Technopolis Association



A multilateral cooperative international organization promoting regional development and a shared prosperity through exchanges and cooperation among science cities and contributing further to the happiness and well-being of all peoples through the advancement of science and technology. international cooperative research projects and building an information network among members.

- A mayors' conference in which practical measures for cooperation and exchanges among member cities are discussed.
- Symposia in the fields of high technologies and advanced science.

# Cities Alliance



Cities Alliance  
Cities Without Slums

A global coalition of cities and their development partners committed to scaling up successful approaches to poverty reduction

- Brings cities together in a direct dialogue with bilateral and multilateral agencies and financial institutions
  - Alliance members promote the developmental role of local governments and help cities of all sizes obtain more coherent international support
  - Helps local authorities plan and prepare for future growth;
  - Helps cities develop sustainable financing strategies, and attract long-term capital investments for infrastructure and other services.
- Provides matching grants for:
    - **City Development Strategies** which link local stakeholders vision with priorities for actions and investments;
    - Citywide and Nationwide **slum upgrading** in accordance with the Alliance's *Cities Without Slums* action plan,
    - **Sustainable financing strategies** for cities to attract the long-term capital investments needed for infrastructure, including improving accountability for service delivery and demonstrating stable revenue streams to more effectively leverage domestic capital.
  - Members: Slum Dwellers International (SDI) , United Cities and Local Governments, Metropolis; Brazil, Canada, Chile, Ethiopia, France, Germany, Italy, Japan, Netherlands, Nigeria, Norway, Philippines, South Africa, Spain, Sweden, United Kingdom and USA; ADB, EU, UNEP, UN-HABITAT and the World Bank.



Sister Cities International is a non-profit citizen diplomacy network that creates and strengthens partnerships between U.S. and international communities. We strive to build global cooperation at the municipal level, promote cultural understanding and stimulate economic development.

Sister Cities International is a leader for local community development and volunteer action. We motivate and empower private citizens, municipal officials and business leaders to conduct long-term sister city programs. We believe that sister city programs involve two-way communication and should mutually benefit partnering communities.

22 June 2008

- **Develop** municipal partnerships between U.S. cities, counties, and states and similar jurisdictions in other nations.
- **Provide** opportunities for city officials and citizens to experience and explore other cultures through long-term community partnerships.
- **Create** an atmosphere in which economic and community development can be implemented and strengthened.
- **Stimulate** environments through which communities will creatively learn, work, and solve problems together through reciprocal cultural, educational, municipal, business, professional and technical exchanges and projects.
- **Collaborate** with organizations in the United States and other countries which share similar goals.

# The Glocal Forum



**A non-profit organisation working to build a new relationship between the city and the global village with the aim of contributing to peace and development.**

Encourages global powers to have broader respect for local powers and cultural diversity in a process defined as glocalisation. This is the basis for city-to-city project activity in fields critical for sustainable development and peace. The Glocal Forum brings together Mayors, international institutions, private sector leaders, citizens, and urban communities in a new glocal-local coalition of forces. Projects focus on socio-economic development, tourism, youth, sports, culture, media, and information technology through the involvement of civil societies.

At the Glocal Forum we help people from countries around the world strike the balance between sharing the benefits of globalization and maintaining local autonomy. This is the glocal approach to managing global development. We believe that the creation of a network that links local resources, city leaders and young citizens to global resources and expertise is the key to fostering a balance between global growth and local needs. Creating links, growing networks, and preserving that balance is what we do.

# ICLEI

(originally International Council for Local Environmental Initiatives)



An international association of local governments and national and regional local government organisations that have made a commitment to sustainable development. More than 500 cities, towns, counties, and their associations comprise ICLEI's growing international membership.

Its mission is to build and serve a worldwide movement of local governments to achieve tangible improvements in global environmental and sustainable development conditions through cumulative local actions.

ICLEI provides technical consulting, training, and information services to build capacity, share knowledge, and support local government in the implementation of sustainable development at the local level.

The organisation's basic premise is that locally designed initiatives can provide an effective and cost-efficient way to achieve local, national, and global sustainability objectives.

# EAROPH



The East Asian Region  
Organisation of Planning and  
Housing a non- governmental  
multi-sectorial organisation  
encompassing the private,  
public and academic sector,  
established to foster the  
exchange of insights and  
experiences among countries  
in the EAROPH region

It promotes a better understanding of  
Human Settlements and encourages  
excellence in planning, development  
and management to improve the  
quality of life and sustainability  
of human settlements.

## Business Partner City Network



- Established in 1988, the purpose of the Business Partner City (BPC) Network is to assist the promotion of business interaction in the Asia Pacific region.
- Cities represented in the BPC Network are: Osaka (founding city), Melbourne, Bangkok, Ho Chi Minh City, Hong Kong, Jakarta, Kuala Lumpur, Manila, Mumbai (Bombay), Seoul, Shanghai, Singapore, Tianjin
- Each year the City of Melbourne coordinates business missions to the partner city hosting the annual roundtable meeting.
- Networking opportunity to meet delegates from other partner cities, privileged access to key business and political leaders in each of the cities.
- Mumbai (2001), Ho Chi Minh City (2002), Seoul (2003), Shanghai (2004), Tianjin (2006) and Mumbai (2006).



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