Supporting Urban *Futures*

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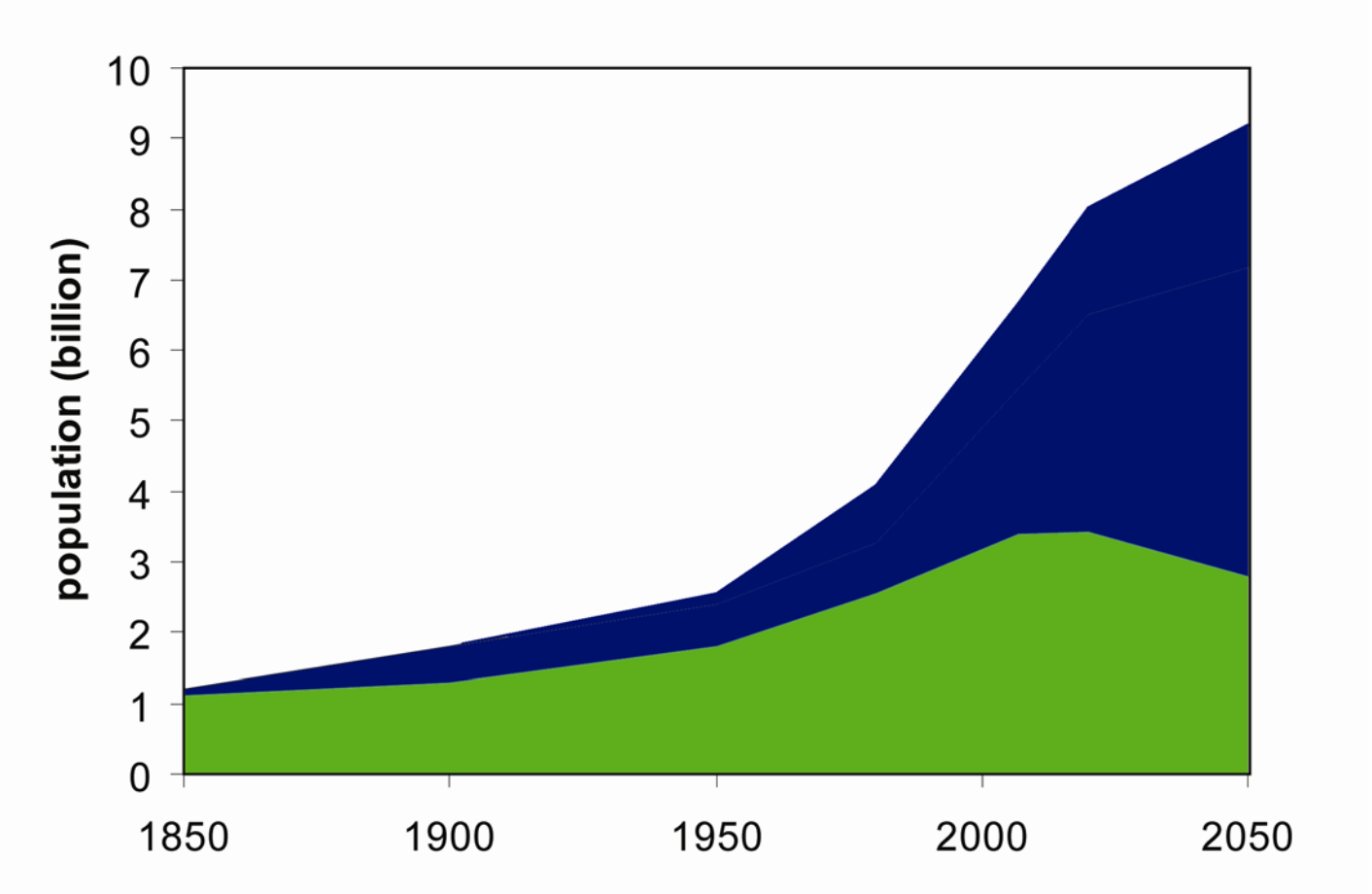
The Alliance for Global Sustainability

Urban population growth



Data: UN-HABITAT, Global Urban Observatory

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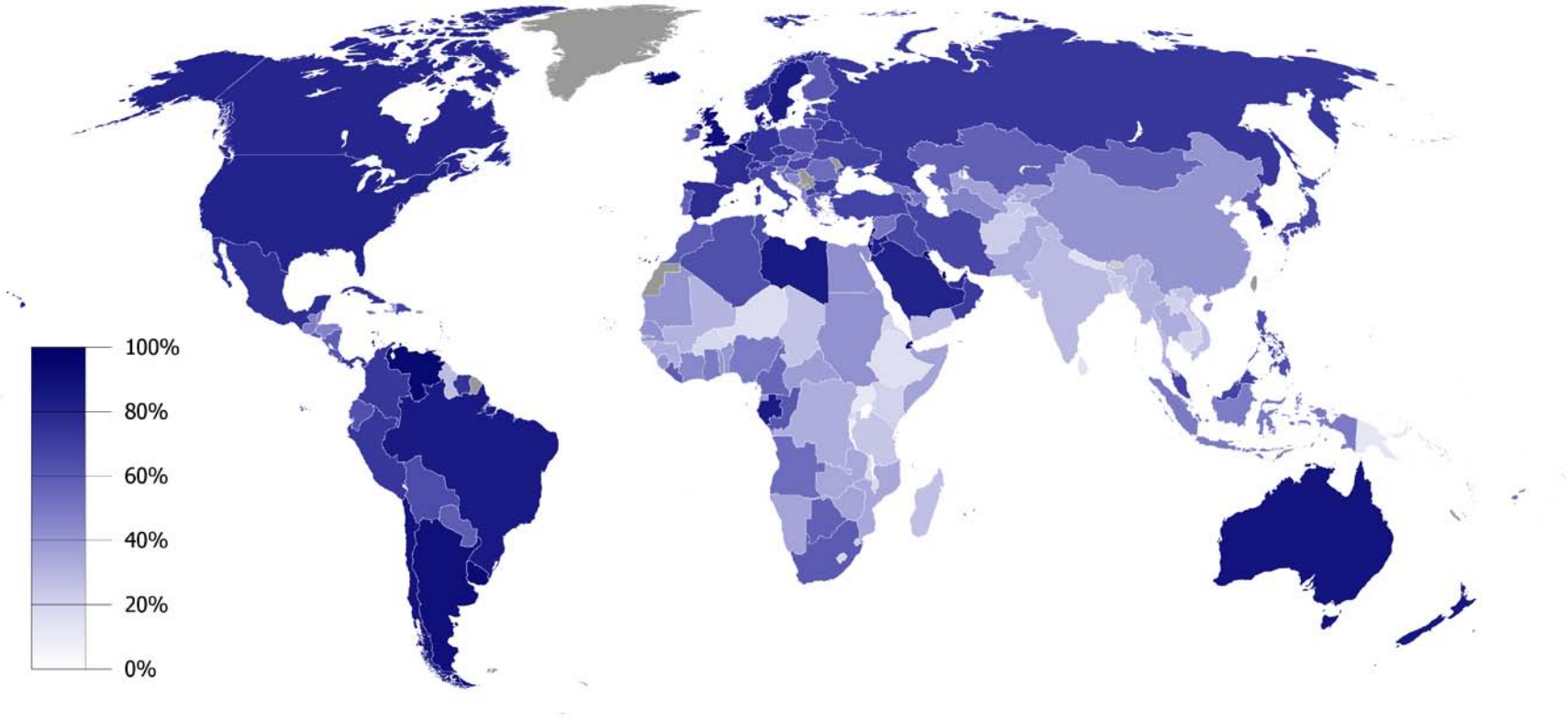
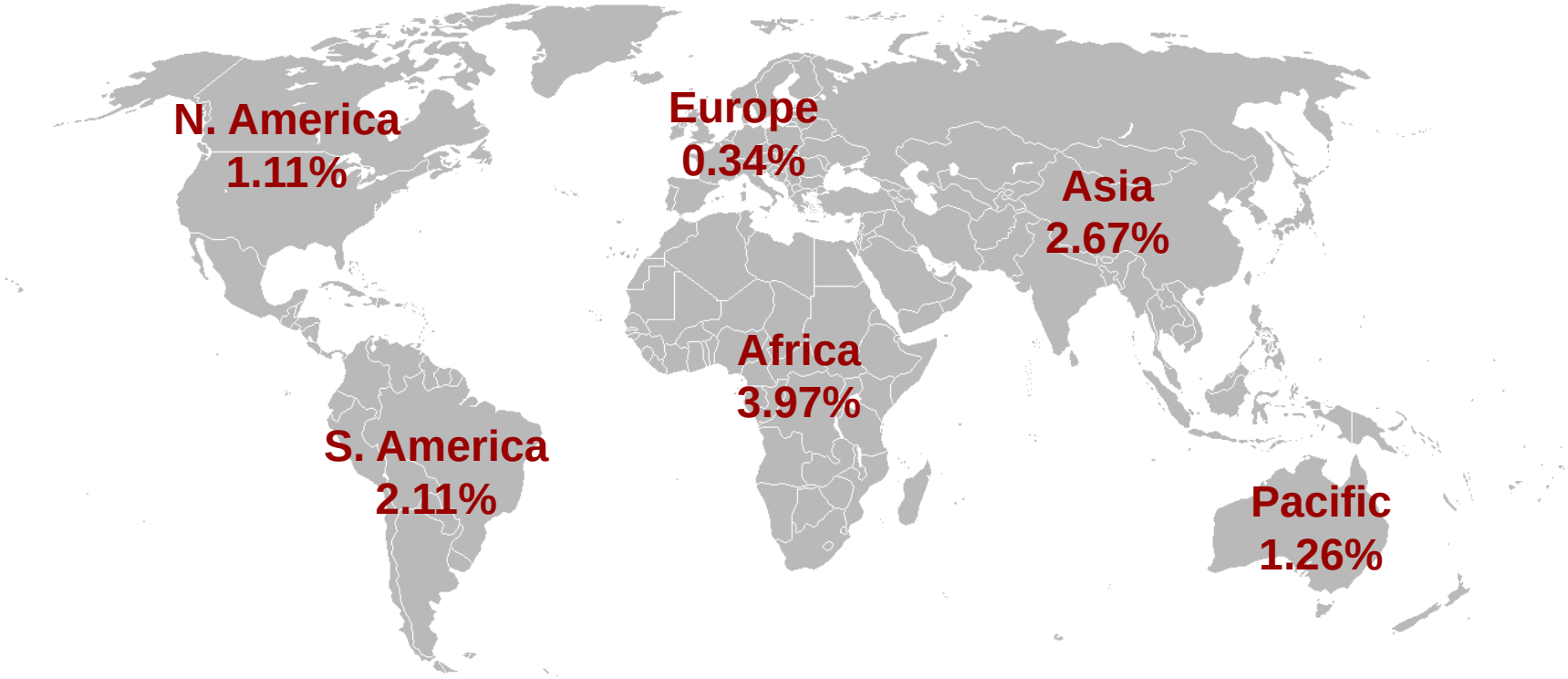
Global urbanization



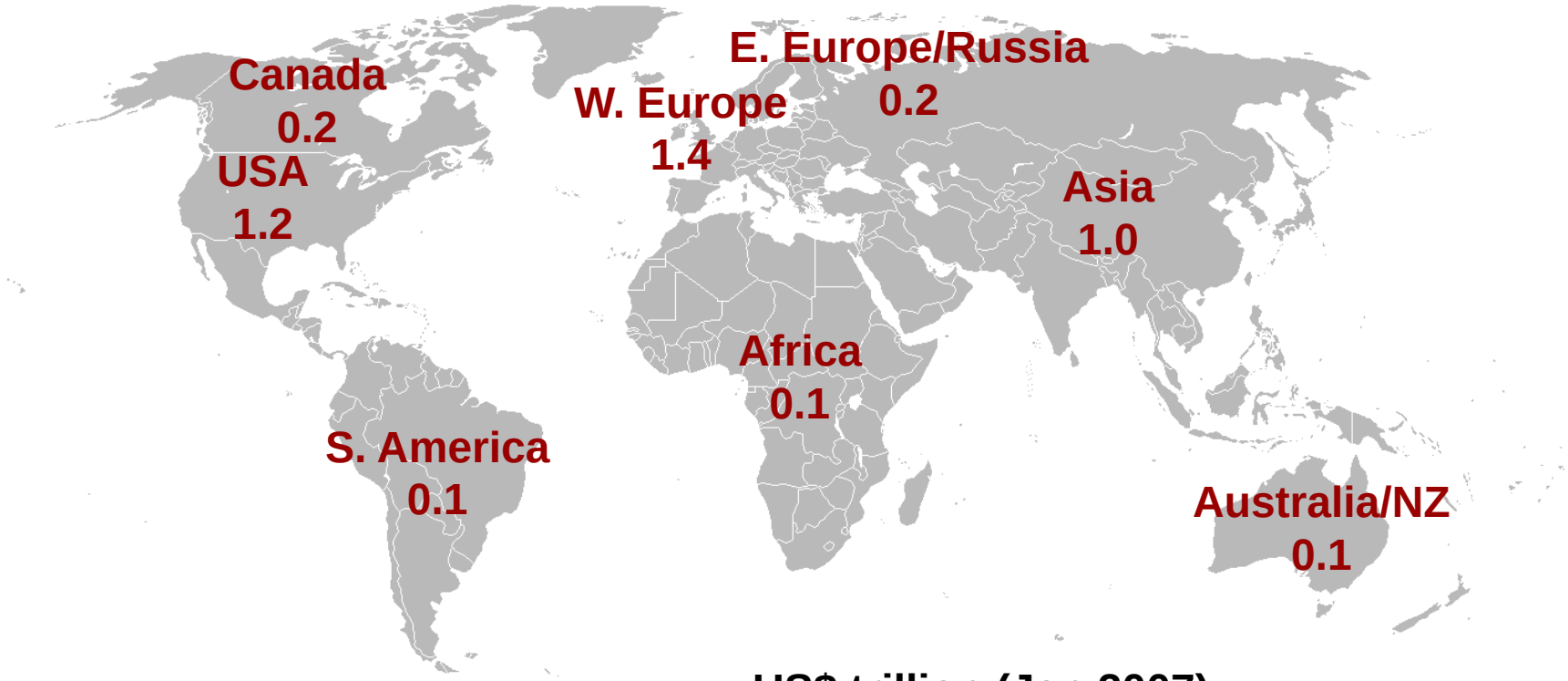
Data: UN Population division, 2006 estimates

Urban population growth



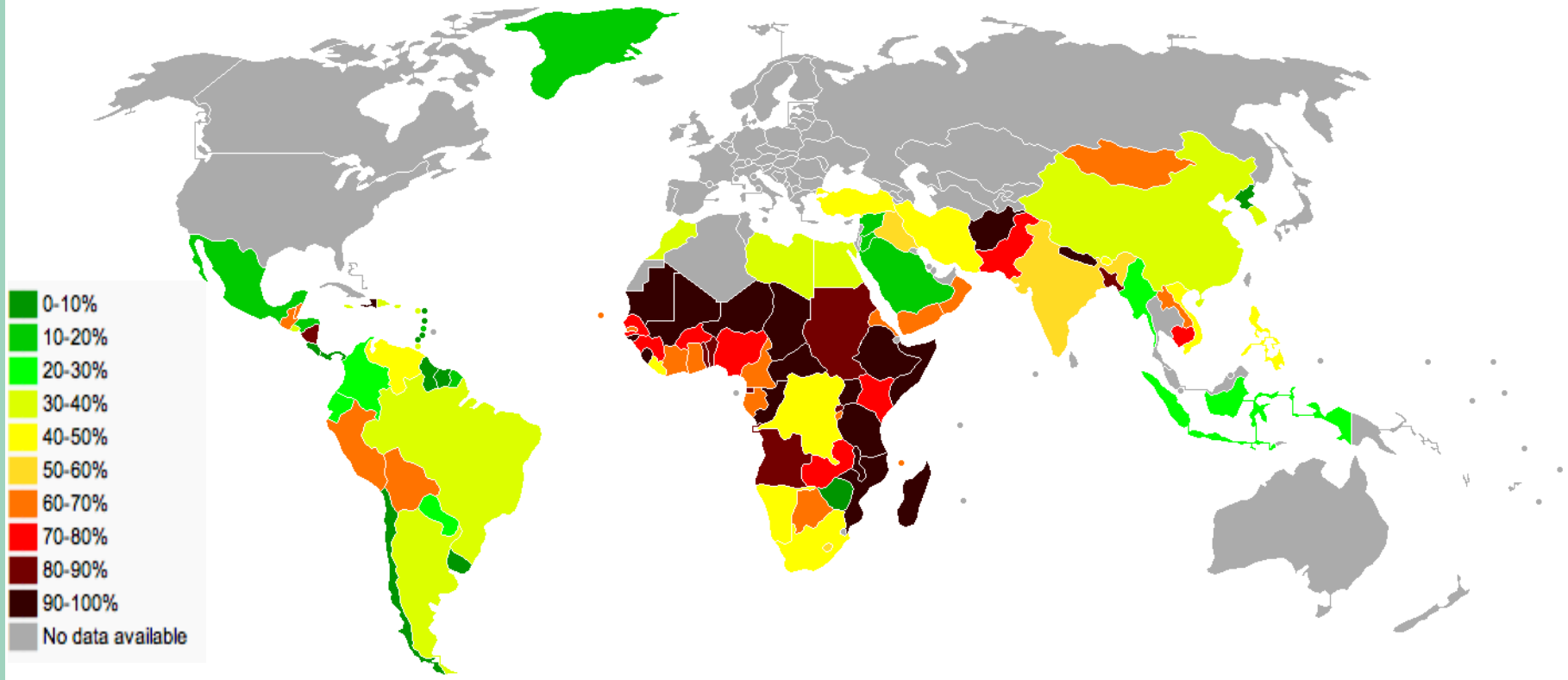
Global construction output

~ US$ 4.6 trillions (2006) **~ 100 million employees**



US$ trillion (Jan 2007)
R. Flanagan, University of Reading

Global slum population



Data: UN-HABITAT, Global Urban Observatory, 2001 estimates

Our Shrinking Earth

1900	1950	1987	2005	2030	2050
7.91	**5.15**	**2.60**	**2.02**	**1.69**	**1.44**

Hectares of Land Per Capita

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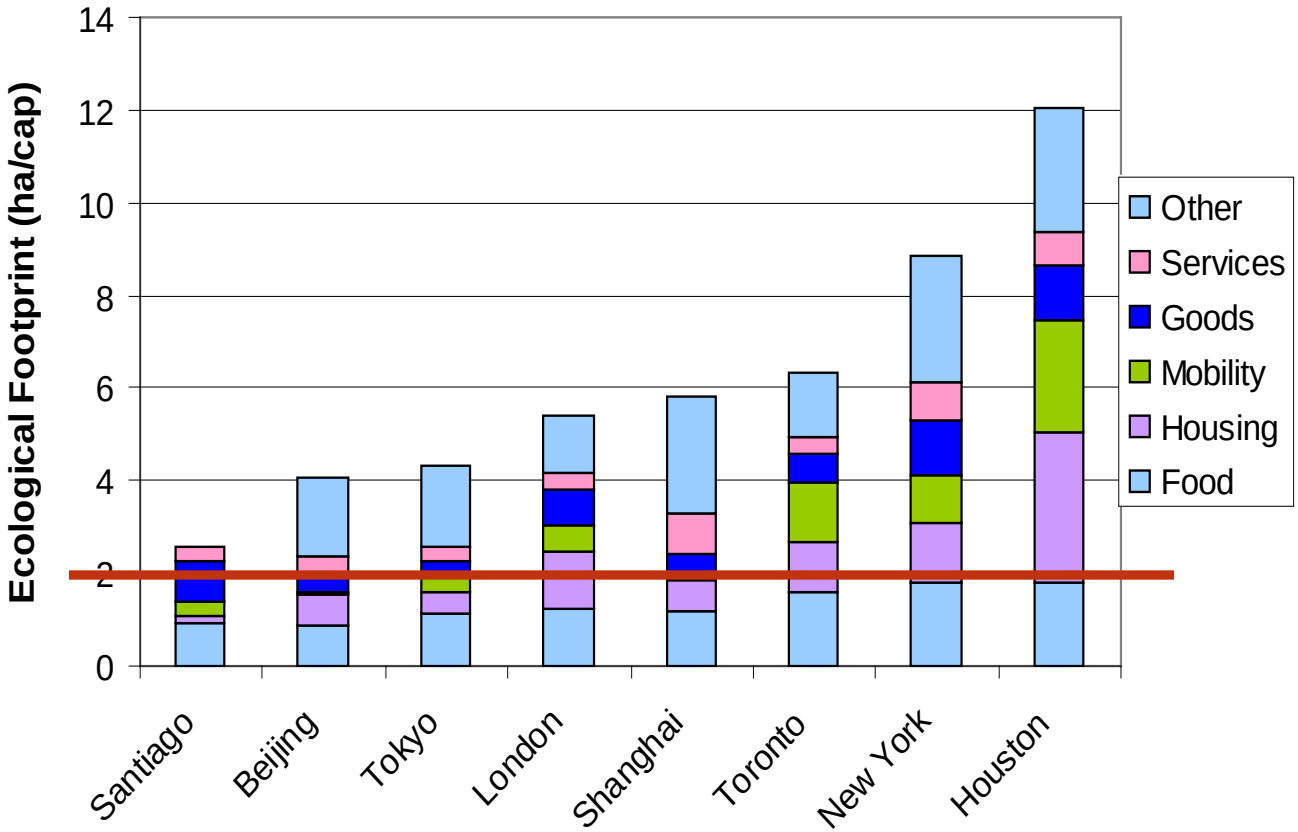
Ecological Footprint



Available share: ~ 2 hectares per capita

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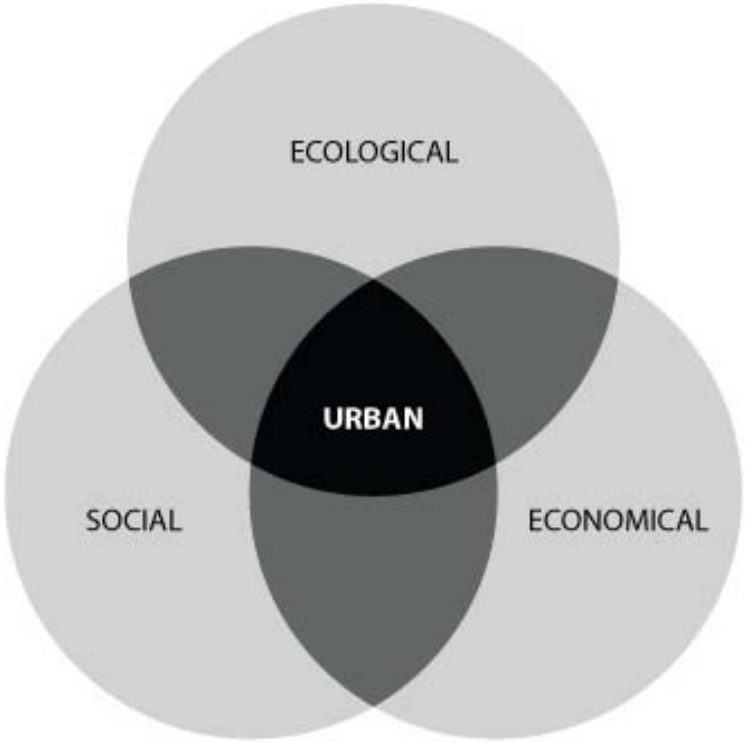
Sustainable Urban Development



SUSTAINABLE DEVELOPMENT

What is the role of universities

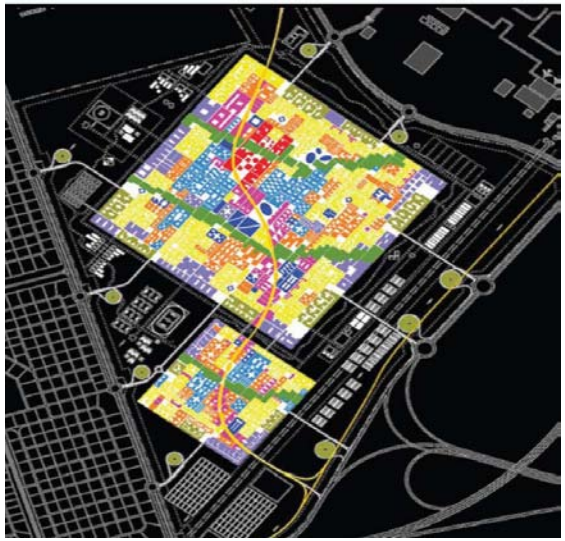
Hub for data, knowledge and understanding

Dissemination through education and outreach

Needs: more transdisciplinary research
in collaboration with governments,
businesses and society

Challenges : Scale of transdisciplinarity
New era of interaction with society

3 components for urban futures

Existing	New	Growing
		
Metabolism Social segragation	Metabolism Build new social interactions	Governance Urban poverty Metabolism
London, Paris, Tokyo, New York City	Masdar, Dubai, Dontang , Curitiba	Shenzhen, Lagos, Jakarta

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3 urban components

Existing

Resources/structures
- energy
- water
- transport

Social fabric

Policy/Governance

Financing

New

Resources/structures
- energy
- water
- transport

Social fabric

Policy/Governance

Financing

Growing

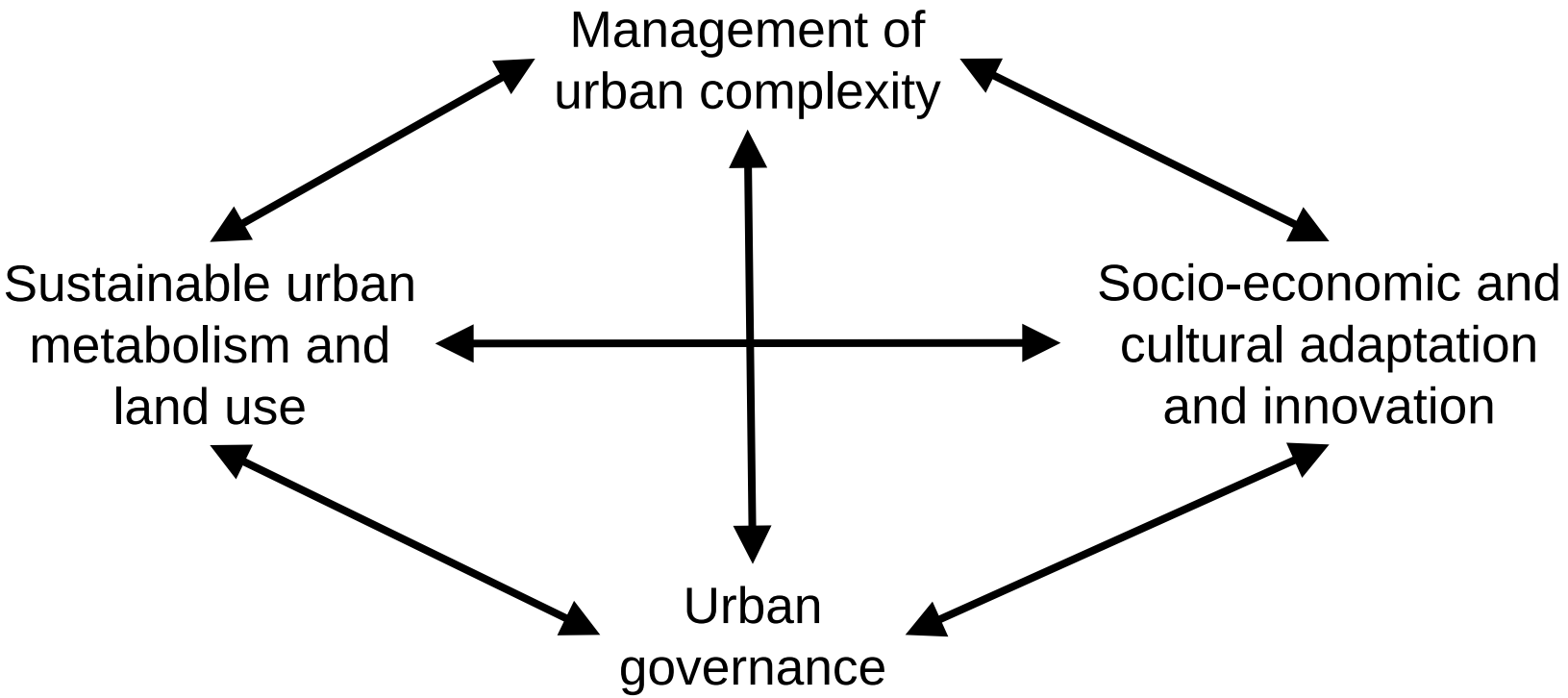
Resources/structures
- energy
- water
- transport

Social fabric

Policy/Governance

Financing

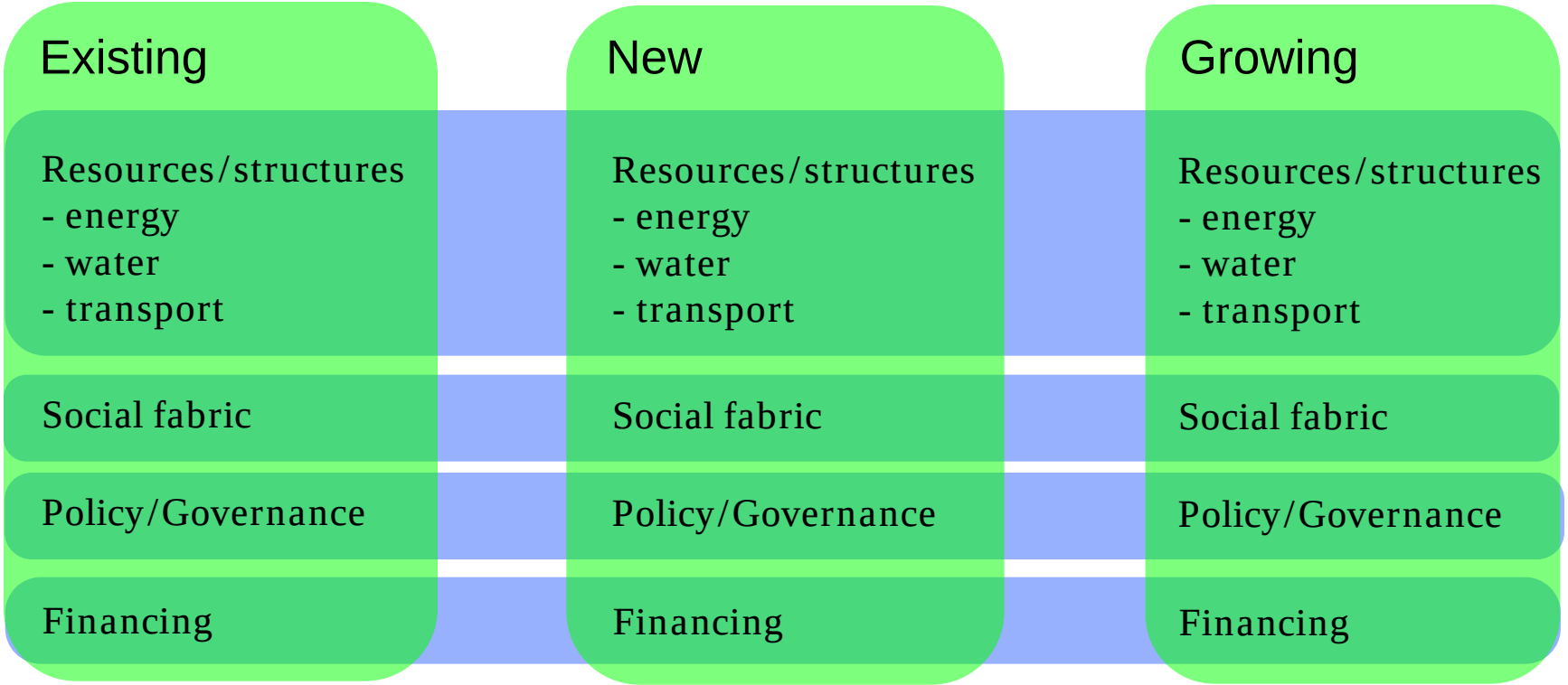
Trandisciplinary platforms



Direct stakeholder involvement

Student involvement

3 urban components



The AGS

The AGS is a partnership of leading technical universities (ETHZ, MIT, Chalmers and The University of Tokyo).

The primary aim of The AGS is to carry out applied research with industry that leads to solutions for current and pressing global issues.

The AGS three fold mission

Research:

To create new knowledge through research that both transcends traditional disciplinary, institutional and geographical boundaries and crosses the academic/industrial division.

Education:

To educate a new generation of leaders for all sectors of society with the knowledge and skills required to address sustainability issues.

Outreach:

To take a step beyond normal academic dissemination of results to facilitate implementation.

The AGS - Research

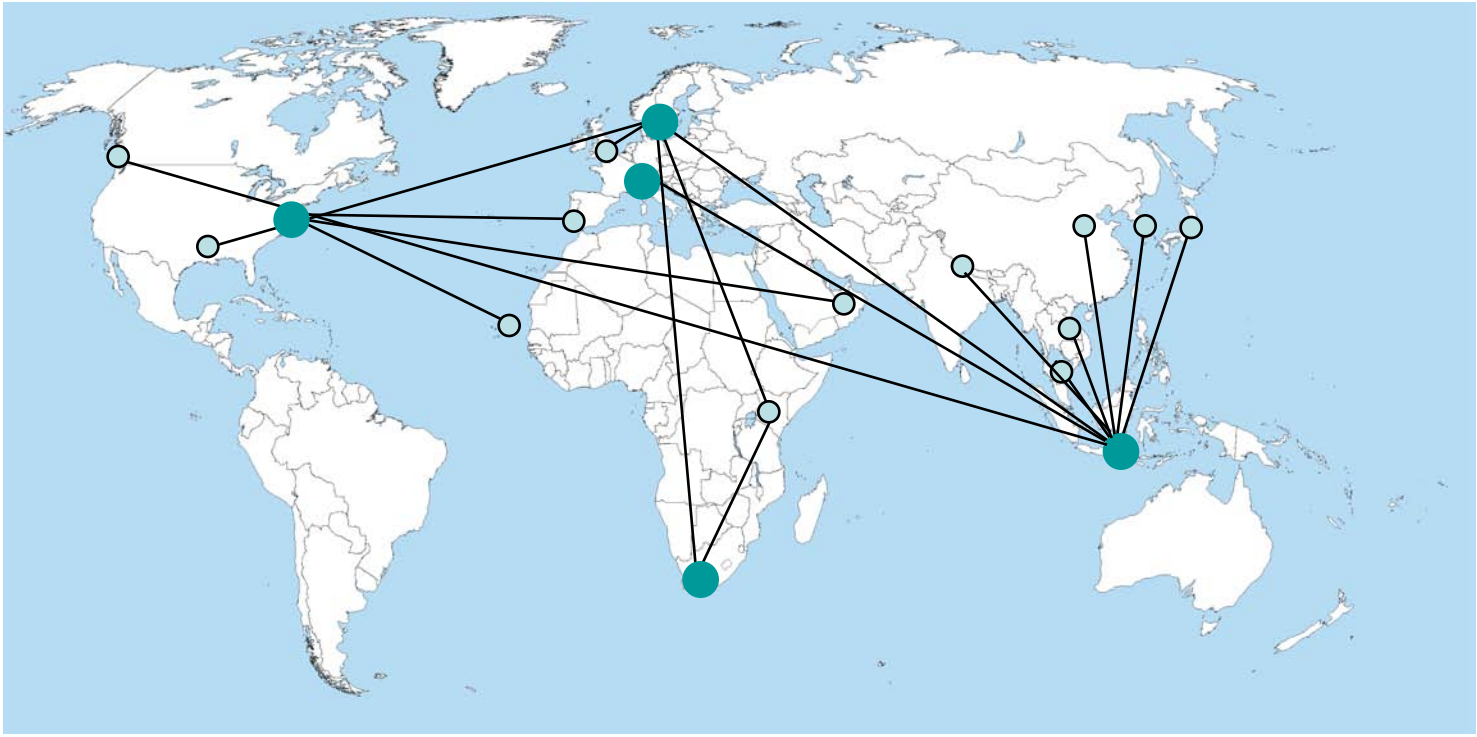
Energy Pathways Flagship Program:
Pathways to Sustainable European Energy Systems
www.energy-pathways.org

Food and Water Flagship Program:
Secure ecosystem services for a nourished world

Urban Futures Initiative
Global seminar on urban futures
www.agschalmers.se/urbanfutures/index.html

AGS Urban Futures Initiative

5 seminars to bring together thinking, in a global context, about the highly complex area of urban futures.



Evolution of sustainable urban settlements
Chalmers, April 2008

Transdisciplinary Research on Urban Futures
ETH-Z, November 2008

Integrating sustainability into Africa urban growth
Cape Town, November 2008

Green Islands
MIT, November 2008

Sustainable city region
Bali, February 2009