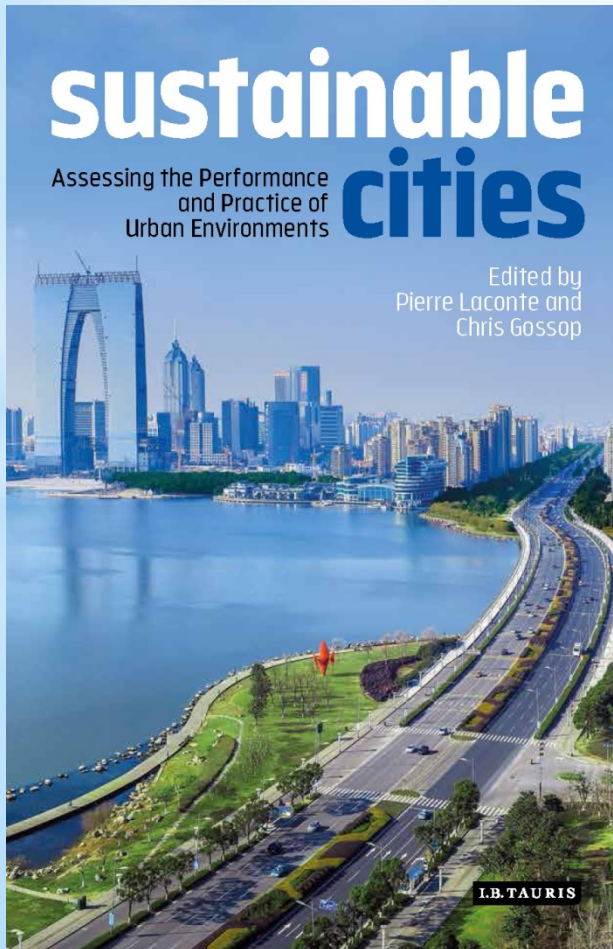


# sustainable cities



## Book Launch

Wed 1 June 2016

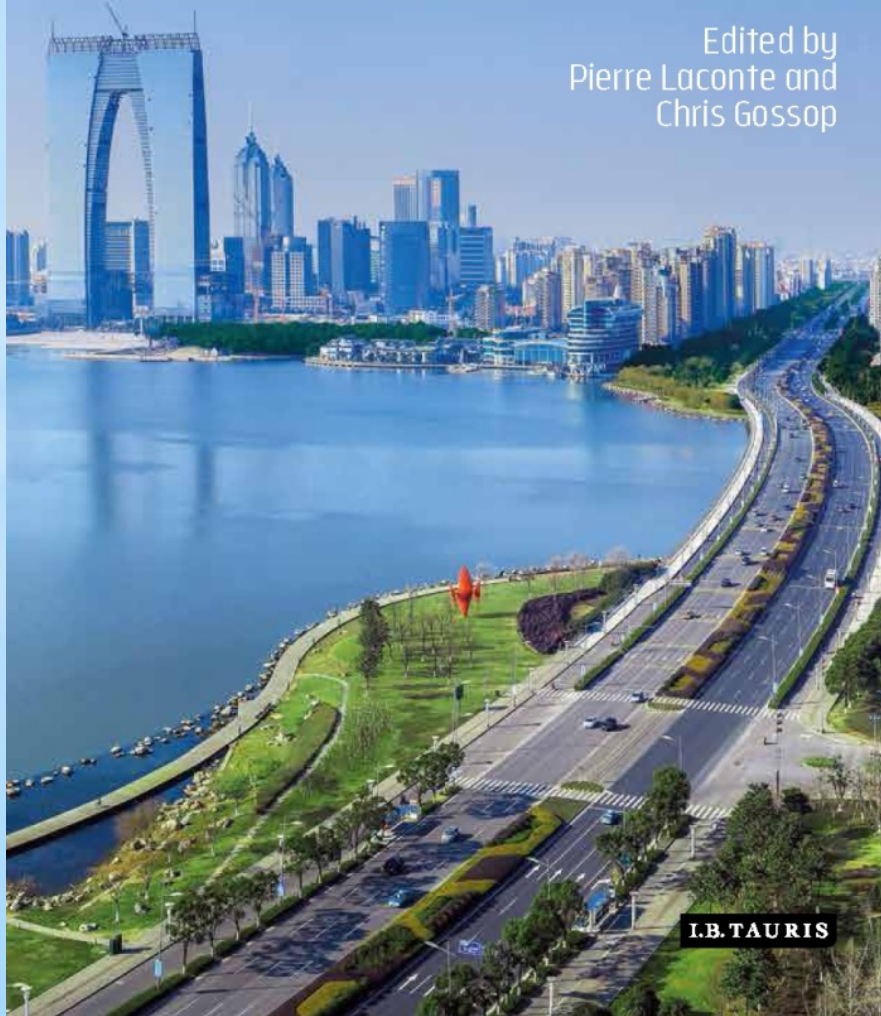
## Sustainable Cities: Assessing the Performance and Practice of Urban Environments

Edited by Pierre Laconte  
and Chris Gossop

# sustainable cities

Assessing the Performance  
and Practice of  
Urban Environments

Edited by  
Pierre Laconte and  
Chris Gossop



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# sustainable

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## Book Launch

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Introduction

Pierre Laconte  
Foundation for the  
Urban Environment

Assessing Sustainable Urban Environments depends from the levels of observation - individual buildings, urban neighbourhoods and entire cities and towns. Best practices are to be examined in a space and time framework.



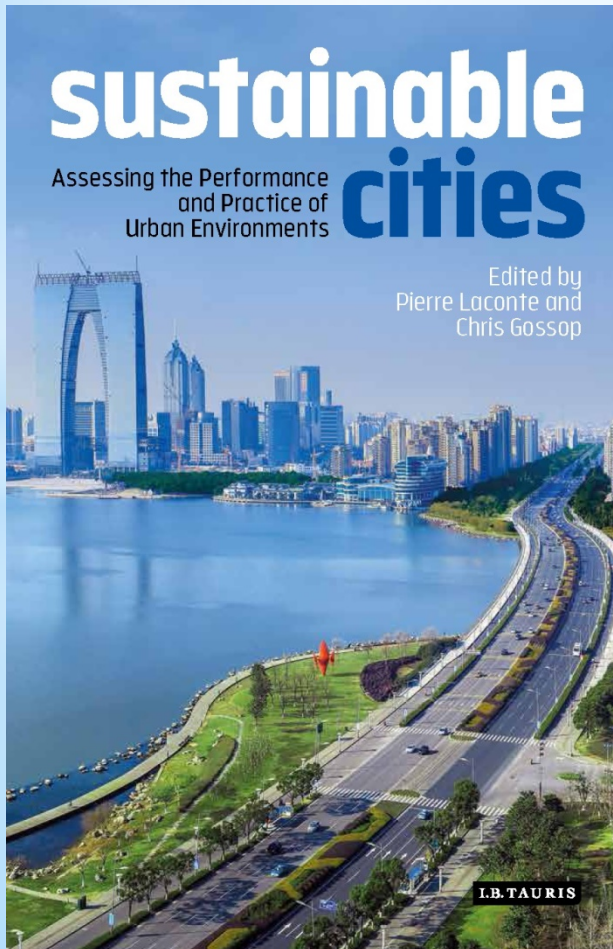
The second part offers a critical assessment of the techniques used to assess urban development, including the measurement of greenhouse gas emissions, ecological footprint analysis, and the assessment of urban biodiversity. It proposes an alternative approach to CO<sub>2</sub>, making the case for greenhouse gas to be seen as a resource, rather than as a liability.

The book presents a number of best practices, including Urban Transport in France (Peter Hall's last paper), Manchester's waterfront, Amsterdam's ring canals, London's King's Cross development, Hamburg's energy efficiency district, the Lee Kuan Yea World City Prizes Bilbao, New York and Suzhou, Singapore being their model, and the new university town of Louvain near Brussels.

A longer presentation at UCL on June 23\* will focus on the cases of Singapore (state), Bilbao (city), and Louvain (part of a city).

\* <http://www.ffue.org/2016/05/assessing-sustainable-urban-environments-criteria-practices-london-23062016/>

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Wed 1 June 2016

Energy in Building: Contributions and Considerations

Dr Kerry J Mashford

Chief Executive – National Energy Foundation





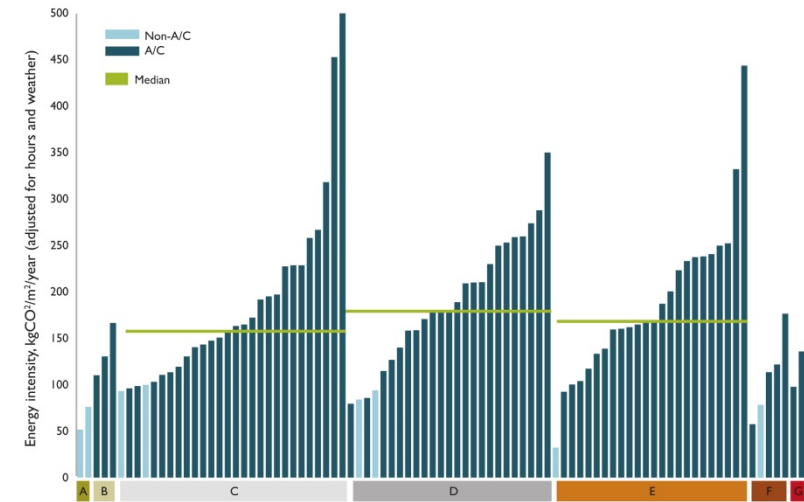
Buildings studied under Innovate UK's building Performance Evaluation Programme



# Buildings



- 39% of total EU energy consumption
- EPC, SAP, Performance delusion
  - Actual = 2-4 times predicted
  - Sweden - only member state requiring in-use verification
- People in the building system
- Measurement and verification, monitoring and benchmarking



Sammanfattning av  
**ENERGIDEKLARATION**

Byggnadens adress  
Kommun:  
Nybyggnadsår:  
Energi-deklarations-ID:

Energi-klasserna från A till G

Den energi-klass som den aktuella byggnaden hamnar i ramar in

Byggnadens energiklass

Här anges byggnadens energiprestanda i siffror, kWh/m<sup>2</sup> och år

Här anges det krav som gäller vid uppförande av en ny byggnad idag (motsvarar energiklass C)

**ENERGIKLASSER**

A  
B  
C  
D  
E  
F  
G

DENNA BYGGNADS ENERGIKLASS

**F**

Energi-prestanda:

Krav vid uppförande av ny byggnad:

Uppvärmningssystem:

Radonmätning:

Ventilationskontroll (DVK):

Åtgärdsförslag:

Energi-deklarationen i sin helhet finns hos byggnadens ägare.

Energi-deklarationen är utförd av:

Energi-deklarationen är giltig till:

För mer information:  
www.boverket.se/energi-deklaration.  
Sammanfattningen är upprättad enligt Boverkets föreskrifter och allmänna råd (2007:4) om energi-deklaration för byggnader.

# Systems of Buildings

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Urban concentration increases building energy intensity

- Heat island
- Prestige and highly serviced buildings

Thermal instability

- Climate change
- Density
- Design

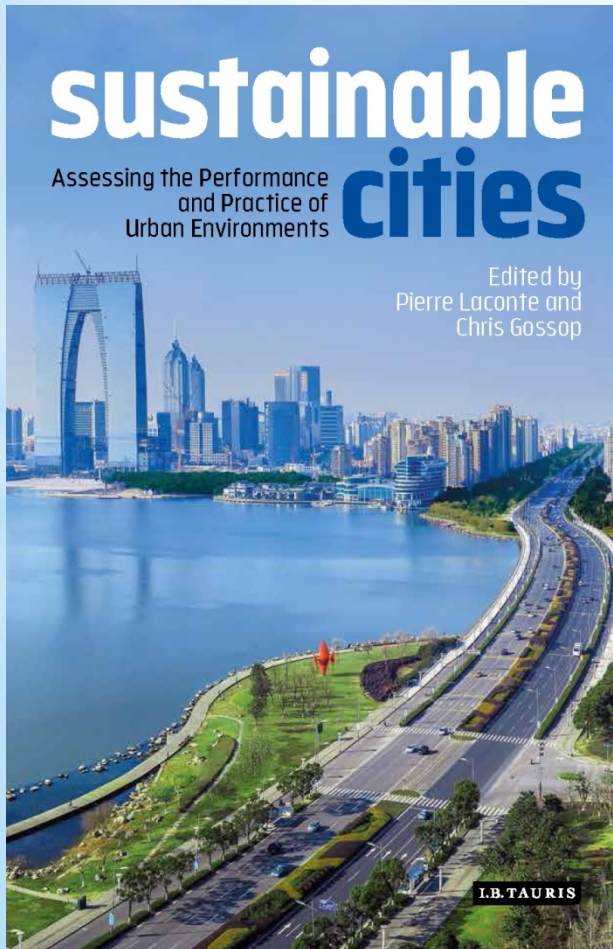
Night-time cooling insufficient

Design for use - what uses?

- Robustness and sensitivity
- Adaptability - 60% of 2050 buildings are already built
- BPIE estimates 71% energy saving



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## Book Launch

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Water and the City

Ian Douglas

Emeritus Professor  
University of Manchester

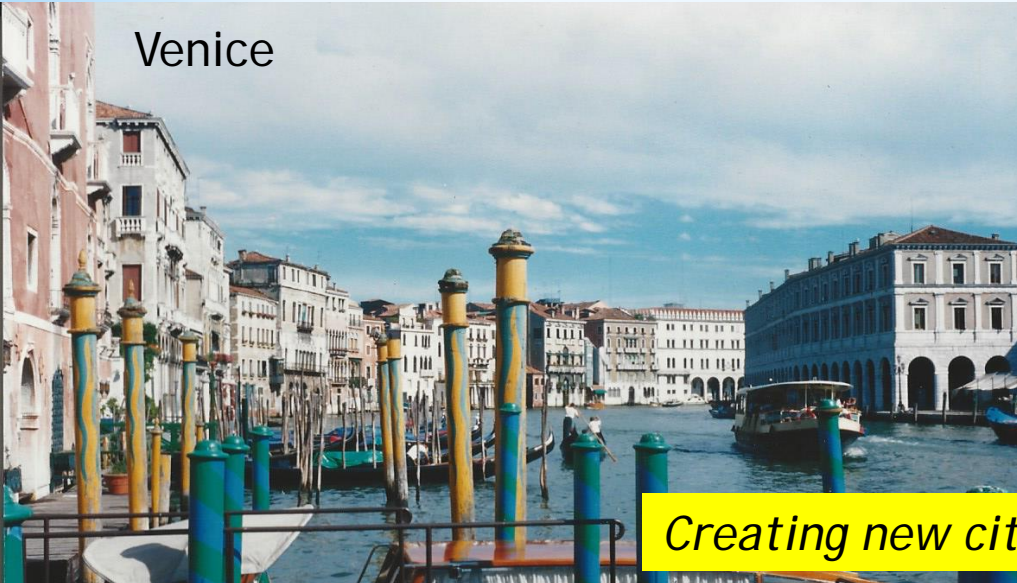


# Cities on the water and around the water

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Venice



Amwaj, Bahrain



*Creating new cities*

Salford Quays



Bridgewater Canal, Sale



*Re-using experienced resources*



# Encouraging waterfront redevelopment

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## *Positive factors*

- Government support: enterprise zones, development corporations
- Public and private sector partnerships
- Municipal encouragement for developers
- Improving a city's image
- Ecosystem service benefits of waterways
- Land and property value gains



*Avon, Bristol*



*Manchester Ship Canal, Salford*

## *Possible problems*

- Past and future water quality
- Unsympathetic developments
- Planning and financing mechanisms
- Inadequate public transport



# Ambitious real-estate or sustainable development?

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Ancoats,  
Manchester



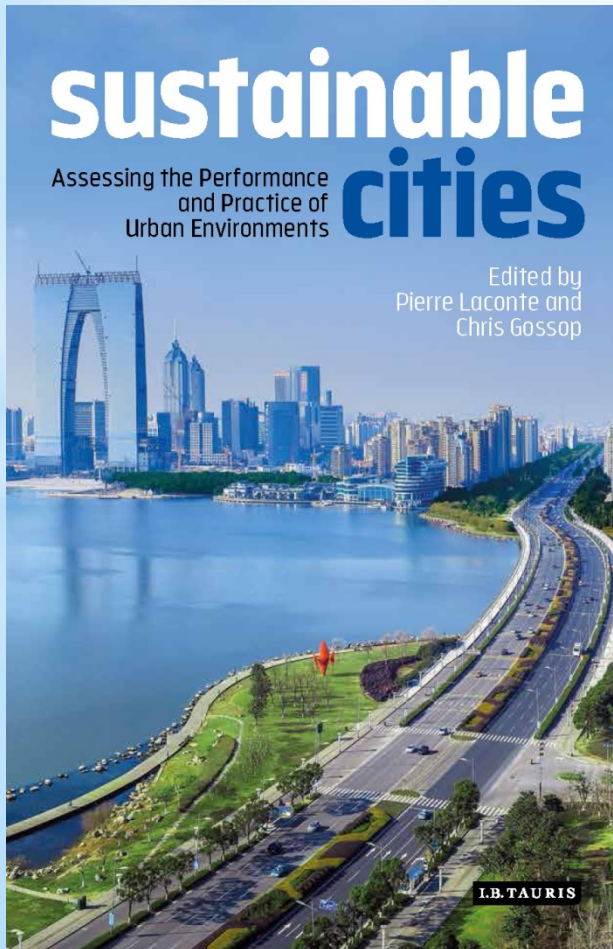
Leith,  
Edinburgh



Fitted into medium to long-term regeneration, transportation and landscape planning efforts: a highly effective re-use of brownfield land and disused waterways



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## Book Launch

Wed 1 June 2016

Snapshots (Chapters 3, 8, 12)

Chris Gossop

Planner and Environmentalist

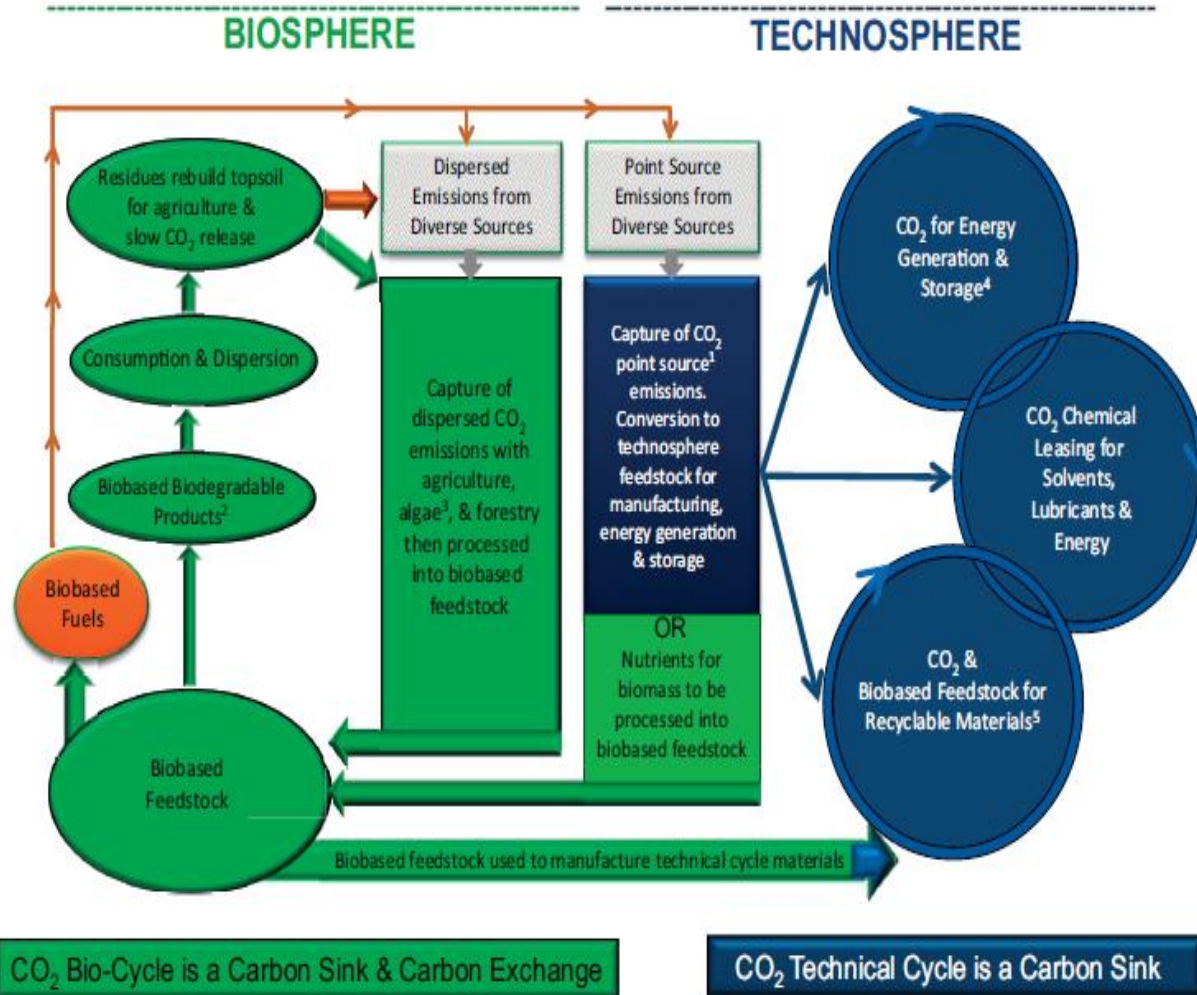
# City Comparisons - Birgit Georgi

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	European Green Capital Award 2010/2011 (Expert panel) (EGCA)	European Green Capital Award 2012/2013 (Expert panel) (EGCA)	European Green Capital Award 2012/2013 (jury) (EGCA)	European Green City Index (Siemens, 2009)	Mercer Eco-city 2010 (European cities) (Mercer, 2010)	Mercer Quality of Life Index 2010 (European cities) (Mercer, 2010)	EIU Liveability Index 2011 (European cities) (EIU, 2011)	Globe Sustainable City Award (European cities) (Globe Award, 2010)	Monocle's most liveable Cities Index 2010 (European cities) (Monocle, 2010)
1	Hamburg	Barcelona	Vittoria-Gasteiz	Copenhagen	Helsinki	Vienna	Vienna	Malmö	Munich
2	Stockholm	Malmö	Nantes	Stockholm	Copenhagen	Zurich	Helsinki	Murcia	Copenhagen
3	Munster	Vittoria-Gasteiz		Oslo	Oslo	Geneva		Stargard Szczecinski	Zurich
4	Amsterdam	Nuremberg		Vienna	Stockholm	Düsseldorf			Helsinki
5	Freiburg	Nantes		Amsterdam	Nuremberg	Frankfurt			Stockholm
6	Oslo	Reykjavik		Zurich	Bern	Munich			Paris
7	Bristol			Helsinki	Zurich	Bern			Vienna
8	Copenhagen			Berlin	Aberdeen	Copenhagen			Madrid

Different ratings/different things; Different purposes;  
Indicators and data? Many questions but a way forward?



Capture and store  
- to capture, store  
and re-use

Biosphere Cycle -  
dispersed  
emissions from  
diverse sources

Technosphere  
Cycle - exploiting  
point source  
emissions

Changing the  
perception of CO<sub>2</sub>

Carbon Dioxide as a resource for the circular economy.

Source: Mulhall, Hansen and Braungart





## King's Cross Development



Circular economy again?  
 An exemplary new urban quarter?  
 A clear transport vision?  
 A vibrant mixed use community?  
 A clear master plan - for the long term  
 Related strategies on design and env. performance