



SUE-MoT Conference 2007

International Conference on Whole Life Urban Sustainability and its Assessment

27–29 June 2007

Glasgow Caledonian University, Scotland



conference.sue-mot.org

SUE-MoT Conference 2007



Sustainability is arguably the challenge of our time. There is growing recognition that our current development path is now threatening the natural systems upon which our civilisation ultimately depends. Sustainable urban development requires a new way of doing things — a way which reduces environmental impact while at the same time promoting widespread economic and social progress. The buildings and supporting infrastructure of our towns and cities contribute positively to people's quality of life but often use materials, produce waste and release CO₂ significantly in excess of that which our land, water and climate can continue to accommodate. Many urban centres are still blighted by crime and poverty: poorly designed developments have negative effects on the health, welfare and economic prospects of communities.

Throughout the world urban decision-makers need robust and comprehensive metrics, models and tools to help them assess the extent to which their choices are leading to urban developments that address these issues and contribute positively to sustainable development.

Conference Aims

The conference will bring together international leading researchers, professionals, tool developers, policy makers and other stakeholders who are involved in the field of urban sustainability assessment to exchange ideas and knowledge on how to meet the assessment needs of urban decision-makers.

*Prof. Malcolm Horner
Conference Chair*

Conference Themes

The conference has five main themes:

- **Planning, Regeneration and Infrastructure**



Covering issues of sustainability, its assessment and associated tools and practices in relation to urban planning and design, urban regeneration and transformation, place-making, infrastructure, transport and utilities.

- **Sustainable buildings: design, performance and assessment**

Covering issues of sustainability, its assessment and associated tools and practices in relation to the design, construction and performance of buildings, including whole-life costing and life-cycle analysis.

- **Stakeholders, Participation and Values**

Covering issues of stakeholder values, culture, knowledge, and participation in relation to the planning and realisation of sustainable built environments and their sustainability assessment.

- **Sustainable Communities**

Covering issues related to urban communities and the assessment of their sustainability, their transitions to sustainability, social capital and environmental justice.

- **Integration and complexity**

Cross cutting issues of integrated sustainability assessment theory and processes, multi-criteria decision-making, composite indices, and the assessment tool landscape and its integration.

Who Should Attend

Anyone with an interest in urban sustainability and its assessment including built environment professionals (such as developers, architects, surveyors, professional advisors, engineers, builders, facilities managers etc., urban planners and designers, urban policy-makers (all levels of government, regulators etc.), urban sustainability assessors, sustainability assessment tool developers, academics, researchers and NGOs.

Venue

The conference will take place at Glasgow Caledonian University, Glasgow, Scotland. Situated in the heart of the city centre, Glasgow Caledonian University's cam-

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pus has been designed not just to provide space for people to learn, but also to meet their human needs — to talk, to recharge and also to have fun.

Glasgow is Scotland's largest city and the UK's third most popular tourist destination with over 3 million visiting every year. The diverse nature of the city's architecture and multi-cultural feel emphasise the international nature of Glasgow's history and influence. Today, Glasgow has emerged as an exciting dynamic city embracing modern contemporary urban life. The city boasts an abundance of museums and galleries, in addition to hosting many cultural organisations. Glasgow also provides the ideal base from which to easily investigate the diverse range of landscape that Scotland has to offer from the coastal towns of Ayrshire and the islands of the Argyll coast, to the splendour of Loch Lomond and the Western Highlands. The nature of the central belt of Scotland provides visitors the opportunity to travel within an hour to major cities such as Edinburgh and Stirling, and provides excellent links to the rest of Scotland.

Travel

Rail

The university is situated within walking distance of both Queen Street Station and Central Station. For details of train times, why not visit the National Rail Enquiries Service at www.nationalrail.co.uk.

Bus

The university is only 200 metres from Buchanan Bus Station.

Underground

The university is close to both Buchanan Street and Cowcaddens stations.

Car

The university is easily accessible from junction 16 (westbound) or junctions 15 & 17

(eastbound) of the M8 motorway. Although no parking is available on campus, there is ample space available at the nearby Concert Hall car park and the Buchanan Galleries.

Airport

Glasgow Airport is situated approximately 10 miles to the west of the City Centre, approximately 30 minutes by taxi, though there is a direct bus link to Buchanan Street Bus Station.

Maps are available on the university web site at www.gcal.ac.uk.

Dress Code

Business or casual dress is appropriate for the conference; business dress should be worn for the conference dinner.

Language

The language of the conference will be English.

Accommodation

Please note that delegates must book their accommodation directly with the hotels. However, a number of rooms at a reduced rate may be available at the following three hotels but places are strictly subject to availability so early booking is recommended:

- Holiday Inn Theatreland (5 minutes walk from the conference venue) To take advantage of a possible reduced rate, please call +44 141 352 8300 and quote "Glasgow Caledonian University"
- Holiday Inn Express (5 minutes walk from the conference venue) To take advantage of a possible reduced rate, please call +44 141 352 8300 and quote "Glasgow Caledonian University"
- Hilton Glasgow Grosvenor (Venue for Conference dinner — approximately 3 miles from the conference venue) To take advantage of a possible reduced rate, please call +44 141 339 8811 between 9am and 5pm -



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ask for Marie Breslin in Reservations quoting "Glasgow Caledonian University"

Other possible accommodation:

- 2 Star Quality Central Hotel (20 minutes walk from the conference venue)
- 3 Star Premier Travel Inn George Square (10 minutes walk from the conference venue)
- 4 Star Millennium Hotel (10 minutes walk from the conference venue)
- Langs Hotel (5 minutes walk from the conference venue)

Accommodation search sites:

- www.scottishaccommodationindex.com
- www.gnws.co.uk

Programme

The conference will open with registration on the afternoon of Wednesday 27 June 2007, followed by a civic reception in the evening. There will be a number of keynote addresses on Thursday 28 June, followed by parallel sessions. Friday 29 June will contain another series of parallel sessions followed by a closing plenary session in the afternoon.

A conference dinner with entertainment and prize giving will take place on the evening of Thursday 28 June at the Hilton Grosvenor Hotel.

Reflecting the international nature of the conference, papers have been received from authors in 33 different countries and every inhabited continent.

The programme may change before the conference.

Programme



Day 1 — Wednesday 27 June

15:00 Registration opens

18:30 Civic reception

Welcome to the City of Glasgow

- Glasgow Lord Provost

Introduction to the SUE-MoT consortium

- Prof. Malcolm Horner (SUE-MoT Principle Investigator, University of Dundee)

Day 2 — Thursday 28 June

8:00–9:00 Registration continues

9:00–10:30 Opening Plenary

Welcome to the University and Conference

- Prof. Pamela Gillies (Principal and Vice-Chancellor of Glasgow Caledonian University)
- Paul Everall CBE (Chief Executive of LABC)

Keynote papers:

- Prof. Raymond Cole (University of British Columbia, Canada)
- Dr Bob Frame (Landcare Research, New Zealand)
- Prof. Jan Rotmans (Erasmus University, Rotterdam, The Netherlands)

10:30–11:00 Coffee Break

11:00–12:30 Parallel Session 1

Planning, Regeneration and Infrastructure

- 1 A GIS tool for modelling and visualising sustainability indicators across three regions of Ireland
- 2 OIKOS: An integrated approach towards sustainable spatial planning and management: application to an urban-periurban area
- 3 The Development of the Index 21 Housing Layout Tool: The Assessment of Non-Monetary Environmental Benefits
- 4 A spatial decision support system for strategic urban re-development: the case study of Turin Porta Nuova in Italy

Sustainable Communities

- 1 Sustainable community indexing, a process approach
- 2 Modelling and assessing transitions to sustainable housing and communities in the UK
- 3 Using Resident Formulated Multi-Dimensional Indicators to Assess Urban Communities' Progress Toward Meeting Sustainability Goals
- 4 Blueprints for Resilient Communities — Micro-comprehensive Sustainability Planning in Baltic Sea Urban Local Areas

Integration and complexity: Matisse Project

- 1 Integrated Sustainability Assessment: what is it, why do it and how?
- 2 A Conceptual Framework for Transition Modelling
- 3 Participatory Modelling for the Integrated Sustainability Assessment of Water: the World Cellular Model and the MATISSE Project
- 4 Sustainable Transport Visions: What role for hydrogen and fuel cell vehicles technologies?

12:30–13:30 Lunch

13:30–15:00 Parallel Session 2

Planning, Regeneration and Infrastructure

- 1 Urban Design for Sustainability: Parameters of Place Formation as Tools of Sustainability Projects in the Case of Temelli, Ankara, Turkey
- 2 Sustainability indicators and their application in decision-making processes of Eastside, Birmingham, UK
- 3 Application of the analytic network process and the multi-model framework to an urban upgrading case study
- 4 The Use of the Analytic Network Process for the Sustainability Assessment of an Urban Transformation Project

Sustainable Communities

- 1 Social Capital and Energy Efficiency in Urban Householders
- 2 Determinants of Social Capital: Promoting Issues for Holistic Urban Sustainability Assessments
- 3 Using EIA for the assessment of environmental inequities associated with proposed urban development in the UK
- 4 Examining the Environmental Justice Component of Urban Sustainability: A Comprehensive Analysis Including Economics, Collective Action, Ethnicity, and Age

Integration and complexity

- 1 Development of an Integrated Sustainability Assessment Toolkit
- 2 A Review of Sustainability Assessment Methodologies
- 3 The argument against a reductionist approach for assessing sustainability
- 4 Increasing Discrimination in Multi-Criteria Analysis

15:00–15:30 Coffee Break

15:30–17:00 Parallel Session 3

Planning, Regeneration and Infrastructure

- 1 Demographic Change and Infrastructure Cost - A Calculation Tool for Regional Planning
- 2 Can Green Infrastructures Promote the Urban Renaissance and Aid Urban Sustainability?
- 3 Transformation processes of large railway stations in Europe: when the urban quality is directly related to the positional value
- 4 Assessment of traffic congestion in Akure, Nigeria using GIS approach: lessons and challenges for urban sustenance

Sustainable buildings: design, performance and assessment

- 1 Blurring boundaries in the theory and practice of sustainable building design
- 2 Design for disassembly: support for urban sustainability in Australia
- 3 "Cradle-to-Cradle" A concept for the disposal of buildings at the end of their lives?
- 4 Sustainable housing projects in the UK: a pilot study

Stakeholders, Participation and Values

- 1 Impacts of Participants' Values on Sustainability of Construction Projects
- 2 On Culture, Urbanity and Sustainable Design
- 3 Extelligence: A New Angle on Sustainability?
- 4 Educating for urban sustainability: a trans-disciplinary approach

19:30 Drinks reception and conference dinner

Programme



9:30–11:00 Parallel Session 4

Planning, Regeneration and Infrastructure

- 1 *Urban sustainability through decentralisation and interconnection of energy, waste and water related solutions: Case EVA Lanxmeer, Culemborg (Netherlands)*
- 2 *Selecting sustainability indicators for urban energy systems*
- 3 *A decision support system for water cycle management in new developments: user scenarios for consideration of sustainability imperatives*
- 4 *More sustainable management of pollution: integrated approach, models and tools*

Day 3 — Friday 29 June

11:00–11:30 Coffee Break

11:30–13:00 Parallel Session 5

Planning, Regeneration and Infrastructure

- 1 *Sustainability investigation tools for water management in new developments*
- 2 *Assessment Methods and Techniques for Regeneration of Large Urban Distressed Areas*
- 3 *Sustainable Urban Development: The Problems of Urban Intensification in Govan, Glasgow*
- 4 *Aggregating Indicators for a Sustainable Regional Development: The Checklist for Self-Declaration and the Swiss Regional Dashboard*

Sustainable buildings: design, performance and assessment

- 1 *Assessment Focus for More Sustainable Buildings*
- 2 *Experiences of applying a sustainability assessment model*
- 3 *Combining Environmental Impact and Financial Cost Calculations with Quality Assessment at the Building Level*
- 4 *A framework model for assessing sustainability impacts of a built environment*

Stakeholders, Participation and Values

- 1 *Sustainability Appraisal and Public Examination of a Regional Spatial Strategy*
- 2 *The role of visualisation in effective sustainability assessment*
- 3 *Progress towards sustainable development in a knowledge society in Italy and EU*
- 4 *Surfing the Landscape of Barriers and Incentives to Sustainability Assessment in an Urban Development Context*

13:00–14:00 Lunch

14:00–15:30 Parallel Session 6

Integration and complexity

- 1 *Genesis, Evolution and Appropriate Use of the 4 Capitals Methodology in the Context of Impact Assessment*
- 2 *Certifying Sustainable Products*

Sustainable buildings: design, performance and assessment

- 1 *Sustainable Timber Frame Diaphragm Development*
- 2 *Yesterday's Buildings for Tomorrow's Sustainable Communities*
- 3 *Sustainability Assessment — Combined LCA and LCC Study of Building Archetypes in Hong Kong and Guangdong Regions and the Implication of Normalisation on Interpretation of Urban Sustainability*

Stakeholders, Participation and Values

- 1 *Carbon Footprinting For Scottish SMEs to Support More Sustainable Practices*
- 2 *Role of Participation in the Development of a Spatial System for Simulating Energy use and Emissions in the Built Environment*
- 3 *The New Marketing Challenge — A Climate of Change*
- 4 *Sustainable Management of Urban Soils: Seeking Expert Consensus Through Computer Mediated Decision Making*

15:30–15:45 Closing

Keynote Speakers



Prof. Raymond Cole, Canada

Ray Cole is a Professor and Director of the School of Architecture and Landscape Architecture at the University of British Columbia. He has been teaching environmental issues in building design in the Architecture program for the past thirty years. He is the Academic Director of the Design Centre for Sustainability. He was co-founder of the Green Building Challenge, an international collaborative effort to benchmark progress in green building performance and environmental assessment.

He is currently a Director member of the Canadian Green Building Council, and a Director member of the Canada Solar Buildings Research Network.

Dr Bob Frame, New Zealand

Bob Frame's areas of expertise include sustainable development, corporate social responsibility and institutional development.

He became the Senior Consultant of the International Business Group at Landcare Research in 2000. He is now the programme leader for research and consultancy to local government and private sector in the areas of strategic management and corporate social responsibility. This programme is developing new assessment methods and determining supporting factors for local government, business and Maori organisations, including the development of a Sustainable Assessment Method (SAM).

Prof. Jan Rotmans, Holland

In September 2004 Jan Rotmans established the new research institute DRIFT: Dutch Research Institute For Transitions and received a position as full professor in transitions and transition management at the Erasmus University Rotterdam.

He is an expert in the field of integrated modelling, scenario analysis, indicator development and uncertainty analysis. He created the IMAGE and TARGETS Integrated Assessment Models. He is scientific director of the Dutch Network on System Innovations: Transitions to a Sustainable Society (KSI). He also leads the European MATISSE project that deals with the development of new tools and methods for assessing sustainability in Europe.

Paul Everall CBE, UK

Paul Everall has been Chief Executive of LABC since 1 June 2005. This is the professional body which represents local authorities building control officers in England, Wales and Northern Ireland.

Following graduation from Cambridge University in 1966, his career until February 2005 was entirely in the civil service. Since 1981 he has led Divisions responsible for planning control over mineral working, new towns, housing renewal policy, and, since 1991, buildings and building regulations. In this latter post he has been responsible for many changes to these regulations, including new requirements for energy efficiency, sound insulation, electrical wiring, disabled access and fire safety.

Further Information and Contact



For further information please visit the conference web site at conference.sue-mot.org or contact the conference administrator.

Conference Chair

Prof. Malcolm Horner
University of Dundee

Conference Administrator

Marianne Halforty
Glasgow Caledonian University
M.Halforty@gcal.ac.uk
+44 141 273 1366

Conference Organisers

This international conference is organised by SUE-MoT, a consortium of Dundee, Glasgow Caledonian, Loughborough and St Andrews Universities, which is developing Metrics, Models and Toolkits for Whole Life Sustainable Urban Development, within the UK EPSRC's Sustainable Urban Environment Programme.

The organising committee consists of

Prof. Malcolm Horner	Prof. Cliff Hardcastle	Prof. Andrew Price
Prof. Jan Bebbington	Dr Mohamed Elharam	Dr Jonathan Walton
Dr Cletus Moobel	Dr Francis Edum-Fotwe	Dr Craig Thomson
Mr Yangang Xing	Mr Vivek Mathur	Mr Alexandros Gasparatos
Mr Toby Atkin-Wright	Mr James Sutherland.	

International Scientific Advisory Committee

Prof. Charles Egbu (UK)	Prof. Paul Bowen (South Africa)
Prof. Bengt Larsson (Sweden)	Prof. Kwong Wing Chau (Hong Kong)
Prof. Raymond J. Cole (Canada)	Prof. Bob Evans (UK)
Prof. Rachel Cooper (UK)	Dr Peter Edwards (Australia)
Prof. Patrizia Lombardi (Italy)	Prof. Adisa Azapagic (UK)
Prof. Fulong Wu (UK)	Prof. Malcolm Horner (UK)
Prof. Cliff Hardcastle (UK)	Prof. Andrew Price (UK)
Prof. Jan Bebbington (UK)	Dr Adjo A. Amekudzi (USA)
Prof. Jiannan Wu (China)	Prof. Silvio Melhado (Brazil)
Prof. Peter Taylor (UK)	Prof. Tony May (UK)
Prof. George Ofori (Singapore)	

Conference Registration Form



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Please return the completed form by fax to +44 141 2731430 or post to: Marianne Halforty, Conference Administrator, Glasgow Caledonian University, Caledonian Environment Centre, 5th Floor, Buchanan House, Cowcaddens Road, Glasgow, G4 0BA, UK

Details of attendees		Number attending:

1. Title	Forename	Surname
Please confirm attendance at Conference Dinner		
Any special dietary requirements (please specify)		

2. Title	Forename	Surname
Please confirm attendance at Conference Dinner		
Any special dietary requirements (please specify)		

3. Title	Forename	Surname
Please confirm attendance at Conference Dinner		
Any special dietary requirements (please specify)		

Organisation name:		
Department		
Address		
City		
County/State		
Postal/Zip code		
Country		
Telephone	Fax	
Email address		

If the attendees have submitted a paper or papers to the conference please give the paper ID number(s) here:	
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Details of any guests at the Conference Dinner	
Please note that there are a limited number of guest places and these will be allocated on a 'first-come, first-served' basis. Guest places are limited to one place per conference attendee.	
Guest name	Any special dietary requirements (please specify)
Guest name	Any special dietary requirements (please specify)
Guest name	Any special dietary requirements (please specify)

Conference Registration Form (cont.)



SUEMoT

Conference Fees (quoted in British Pounds Sterling £)	Total Fee (includes VAT at 17.5%)
Student Fees per attendee Includes delegate attendance at dinner	£235.00
If student, please supply matriculation number(s).	
Full Conference Fees per attendee Includes delegate attendance at dinner	£440.63
Fee per conference dinner guest Please note one guest per conference attendee	£58.75
Number of attendees	
Number of conference dinner guests	
Total amount due	£

Method of payment	
Cheque: I enclose a cheque for the sum of: Please make payable to "Glasgow Caledonian University"	Sterling (£)
Bank draft	Sterling (£)
Invoice	Please provide address details if different from above
Bank transfer	
Bank name:	Royal Bank of Scotland 23 Sauchiehall Street, Glasgow, G2 3AD, UK
Account name:	Glasgow Caledonian University
Account number:	00716754
Sort code:	83-52-00
Swift code:	RBOS GB2L
IBAN no:	GB54 RBOS 835200 00716754 At the time of payment transfer, please ensure that a remittance advice, detailing your payment, is sent to "Glasgow Caledonian University Cashiers' Office", Glasgow Caledonian University, Glasgow, G4 0BA, UK.
Credit/Debit card	If you wish to pay by credit or debit card, please return your registration form along with the card payment form, either by fax or post to the address shown at the top of this form.

Cancellations and Refunds
Any cancellation must be received in writing before Wednesday 30 May 2007 (a cancellation charge of 25% of the conference fee will be incurred for administration expenses). After this date the cancellation cannot be accepted or any fees refunded but a substitute delegate can be named. It may be necessary for reasons beyond the control of the organisers to change the content and timing of the event, the conference speakers, the date or the venue. In the event that the conference is cancelled a full refund of the conference fee will be made however, the Conference Organisers disclaim any further liability.

Copies of these forms are available on the conference web site conference.sue-mot.org.

Card Payment Form



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If you wish to pay by credit or debit card, please complete this form and send it along with your registration form by fax to +44 141 2731430 or by post to: Marianne Halforty, Conference Administrator, Glasgow Caledonian University, Caledonian Environment Centre, 5th Floor, Buchanan House, Cowcaddens Road, Glasgow, G4 0BA, UK

Name of attendee(s)	
Organisation name	
Address	
City	
County/State	
Post/Zip code	
Country	
Email address	
Telephone number (including dialling codes)	
Fax number (including dialling codes)	

PAYMENT METHOD	CREDIT / DEBIT (please circle)
Type of card e.g. Visa, Mastercard	
Name on card (if different from above)	
Card number	
Valid from date	
Expiry date	
Card issue number (if applicable)	

If different to the address you give above, please give here the postal address (including full Post Code / Zip Code) to which the cardholder's credit / debit card statements are sent.

NB. If this information is not provided, the transaction WILL NOT be processed!

Please debit my credit/debit card with (Sterling) £
Signature
Print name