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February 2020

## Details

Current position:	Leader Future Proof Cities, Manchester Urban Institute
Qualifications:	BSc in Architecture, 1983 (University College London) Diploma in Architecture, 1987 (Manchester Metropolitan University) Professional Practice III, 1988, (Royal Institute of British Architects)
Professional activities:	2020 - Fellow of the Royal Society of Arts 1989-2002: Councillor, Town & Country Planning Association 1999-2007: Coordinator, EU Network for Sustainable Urban Development 2007-2015: Coordinator, Greater Manchester Policy Exchange
Employment history	2001-2020: Co-Director, Centre for Urban Resilience & Energy, School of Environment, Education & Development, Manchester University 1997 – 2001: Research Fellow, Manchester University 1994 – 1997: Research Coordinator, Manchester Metropolitan University 1991 – 1994: General Manager, Settle-Carlisle Railway Company 1983 – 1991: Architect in practice: public, private & third sectors

## Further information

Research site: [www.manchester.ac.uk/synergistics](http://www.manchester.ac.uk/synergistics)

Personal site: [www.urban3.net](http://www.urban3.net)

CURE main site: [www.manchester.ac.uk/cure](http://www.manchester.ac.uk/cure)

## Contact

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## Experience & interests

Joe Ravetz is a leading thinker on sustainable futures for urban and regional development. He just published the landmark text [Deeper-City-Collective-Intelligence-and-the-Pathways-from-Smart-to-Wise](#) – a unique exploration of the cognitive systems of cities, economies, technologies and government systems, and the potential pathways for transformation.



His previous major text '*City-Region 2020 – integrated planning for a sustainable environment*' brought new insights with methods and tools, based on the Sustainable City-Region programme and the living laboratory of Greater Manchester. From this work the Centre for Urban & Regional Ecology (CURE)<sup>1</sup> was formed in collaboration with Professor John Handley. Joe has raised over £2.5 million in research funding, and built a unique portfolio of policy-relevant research, with four main strands:

- **Smart-wise cities and the 'collective urban intelligence':** trans-disciplinary methods for mapping and design collective intelligence in human systems, such as cities, economies, technologies or governance. Current applications of the method include projects in Finland, Australia, Naples, JPI-Europe, Mexico, UK, and Manchester
- **Environment-development studies:** systems resilience and adaptation: business-environment issues: low carbon strategies: urban-regional modelling, resource flows and externalities:
- **Spatial development studies:** peri-urbanization: urban innovation: spatial frameworks: infrastructure planning: urban policy and governance, local, regional and national.
- **Foresight, futures and information studies:** innovation and co-innovation: systems governance: science policy / knowledge management: visualization methods.

Joe Ravetz is now coordinating the global partnership in the *Peri-Cene* project (Peri-urbanization & climate-environment). Current roles include the editorial boards of International Journal of Sustainable Development: Foresight Journal, and Sustainable Mediterranean Construction. He is also a Principal with SAMI Consulting, a non-profit strategic management / futures organization. In addition he delivers many training courses, seminars, keynote presentations and review services around the UK and EU.

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<sup>1</sup> Note: CURE was relaunched in late 2013 as the Centre for Urban Resilience & Energy: see <http://urban-energy.org/2013/11/05/cure-launch-lecture/>

Recent initiatives include: Co-Chair of the European Smart Cities & Communities Platform: Foresight training / capacity building courses for the UN Industrial Development Organization: the International Creative Cities Laboratory: UN Habitat expert programs 2012 and 2014: UNEP Man & Biosphere Programme. Review / referee services include the IPCC-AR4, European Science Foundation, EC DG Research, Canadian Social Science & Humanities Research Council, Academy of Sciences in Finland, Switzerland, Netherlands, etc, together with many journals. Major funded projects since 2008 include: UKRI Peri-cene (peri-urbanization and climate-environment): JPI Urban Europe, ‘Learning Loops in Urban Environment’: Academy of Science Finland, ‘Bemine - integrated envisioning’: FP7, Plurel (Peri-urban Land Use): UK Government Office of Science, ‘Future of Urban Ecosystems’: FP7, CASI: (‘Common Assessment for Sustainability Innovation’); FP6, Eurocoop, (‘EU cooperation for regional innovation’): FP6, ENSURE (European Network for Sustainable Regional Development’): EPSRC, Suregen (‘Sustainable Urban Regeneration’), etc.

## Themes and agendas

The over-arching rationales for all this are several. One is the transition towards a more sustainable economy, society and development pattern: and the new kinds of knowledge, learning and policy processes which can enable that. These insights emerged through the Sustainable City-Region and One Planet Economy programmes, and others on the sustainability policy-research interface.

The results have produced a powerful research approach, which is demonstrated in the book [Deeper-City-Collective-Intelligence-and-the-Pathways-from-Smart-to-Wise](#). This brings insights from complexity / transition theory, and innovation / enterprise policy, in the form of ‘synergistic mapping’ of ‘value-added’ – economic, social, cultural, etc – and the emergence of shared intelligence. Such combined mappings, help to design policy interventions for complex problems, as combinations of economic, institutional, behavioural, ethical and technology actions. This can then be applied to the ‘grand challenges’ of the 21<sup>st</sup> century: climate change, prosperity vs austerity, resilience vs fragmentation, economic growth on a finite planet, and others.

Joe Ravetz has a key role as Principal for SAMI Consulting, a strategic management and foresight non-profit firm, operating in public and private sectors in the UK and EU. He is also a member of the editorial board of *International Journal of Sustainable Development*, *Foresight Journal*, and *Sustainable Mediterranean Construction*, and Coordinator of the Greater Manchester Policy Exchange programme. In addition he delivers many training courses, seminars, keynote presentations around the UK and EU. Recent initiatives include the series of Foresight training and capacity building courses for the United Nations Industrial Development Organization and Manchester Institute of Innovation Research: the United Nations Habitat Urban Forum / World Habitat Day conferences in 2006 and 2008, 2012 and 2014: the Futures Forum of the Royal Town Planning Institute, the International Human Dimensions of Environmental Change Programme Land-Ocean Interaction initiative, training for the UK National School of

Government, etc. There are also many review and referee services: such as for the IPCC Fourth Assessment Report, European Science Foundation and European Research Council, Canadian Social Science & Humanities Research Council, together with ESRC / EPSRC in the UK. Joe Ravetz is also a skilled graphic facilitator for foresight-sustainability type workshops and seminars, and a keen advocate of concept mapping and ‘deliberative visualization’.

## ***Publications***

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Ravetz, J. and Connelly, A. (2018) *Water Governance in Greater Manchester*, Manchester, Natural Course.

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Ravetz, J (2017): From ‘smart’ cities to ‘wise’: pathways for intelligent sustainability. In: Bylund, J, (Ed), *Urban Transitions Pathways*, Brussels, JPI-Urban Europe, available

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### **In the pipeline:**

- Ravetz, J, Beilin, R, Connelly, A, Tantanasi, I, (forthcoming). Resilience of what for whom?? Mapping the landscape of new combinations in theory and practice. *Ecology and Society*
- Ravetz, J, (in writing). Integrated Envisioning at the foresight frontier: experience from the Finland urban system. *Futures*.
- Ravetz, J, (in writing): Towards a science of 'smart' and 'wise': on the comparative study of collective intelligence in four countries. *Urban Studies*

## Recent blogs

- <https://greattransition.org/gti-forum/after-the-pandemic-which-future-1>.
- <http://urban-energy.org/2013/11/05/beyond-the-sustainable-city-region-prospects-for-urban-intelligence/>
- <http://urban-energy.org/2013/12/04/10days/>
- <http://samiconsulting.wordpress.com/2014/01/24/housing-crisis-what-crisis-what-next/>
- <http://cor.europa.eu/pages/EventTemplate.aspx?view=detail&id=d1e23dfc-27f1-4069-a884-fc4bbd5d63ce>

## Recent initiatives

(Summary for 2012-2019)

- Keynote for the International Smart Cities Summit at the World Artificial Intelligence Congress, Shanghai, 10<sup>th</sup> July - “**CHAI or Collective Human Artificial Intelligence, and the pathways from smart to wise**”
  - <http://www.worldaicc.com.cn/portal/en/highforum.html?categoryCode=445677561570267136>
  - Expert Group workshop for the European Commission (DG REGIO) on ‘Managing Industrial Transitions in Lagging Regions’, with the JRC-IPTS Seville, July 2020. <https://s3platform.jrc.ec.europa.eu/-/working-group-understanding-and-managing-industrial-transitions-inception-and-review-methodology-validation-workshop?inheritRedirect=true>
  - Cabinet Office (Open Innovation Unit) & National Leadership Centre, panellist for workshop on ‘Systems leadership in the public sector’, Bristol, Jan 2020
  - XXI International Conference on STI Foresight & Future studies, Higher School of Economics, National Research University, Moscow, Dec 2019: Workshop & presentation on ‘cities in the age of disruption’.
  - Synergy-Lab stakeholder meeting at the Indian Institute of Technology Madras, convened for the *Peri-cene* project (peri-urbanization and climate-environment).
  - Advisor to European Commission DG REGIO on ‘Managing Industrial Transitions in Lagging Regions’, workshop with the JRC Expert Group, Brussels, Dec 2019
  - Expert panel for project ‘UK socioeconomic scenarios for climate research and policy’ for Met Office & UKCR, led by Cambridge Econometrics
  - UoM Industry 4.0 Symposium, keynote on ‘circular economy cities & circular value chains’, March 2020
  - Co-editor for special issue of Regional Studies, on ‘Re-imagining the future: City region foresight and visioning in an era of fragmented governance’.
  - Co-editor for special issue of Urban Transformation, on Beyond Urban Living Labs: The making of transformative urban innovation systems.
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- Joe Ravetz is advising the European Commission DG REGIO on ‘Managing Industrial Transitions in Lagging Regions’, with the JRC Expert Group, IPTS Seville: keynote for Brussels workshop Dec 2019

- ‘Post urbanities’ workshop facilitator, at the International Conference on STI Foresight & Future studies, Higher School of Economics, National Research University, Moscow, Dec 2019
- Tamil Nadu State Disaster Management Authority, Chennai, hosted a synergy-foresight workshop on ‘climate risk & coastal urban ecosystems’
- Operational Research Society Annual Conference – facilitated workshop on ‘deeper challenge, wider practice’ – application of multiple systems methods to the grand challenges of the 21st century.
- Organized 2 MUI partnership forums on Climax City by David Rudlin (with MSA) & Policy Innovation in Indonesia by Yanuar Nugroho (with MIOIR), October 2019
- RGS / IBG forum on ‘cities of tomorrow’, Panellist, October 2019
- Appointed as Associate Member of the Manchester Institute for Innovation Research
- Co-convenor of the ‘Local Learning’ panel at AESOP 2019, Venice
- Expert Advisor to DG REGIO on ‘Managing Industrial Transitions in Declining Regions’ program with the JRC Expert Group, IPTS Seville:
- Keynote at the XXth International Conference on STI Foresight & Future studies, Higher School of Economics, National Research University, Moscow
- Advisor to the Future of Housing Road-mapping project for DOM (Russian Ministry of Housing Agency)
- Coordinated the CURE Anglo-French forum on financing sustainable development in the northern UK.
- Keynote at the EU Joint Research Centre Workshop "Regional Innovation Strategy 3 in Greece: Consolidating Governance and Raising Ambition", Thessaloniki,
- Led the workshop on ‘integrated envisions’ at the ‘Beyond Technical’ consortium meeting, Helsinki, (Finland Academy of Science).
- Led a workshop on the ‘smart settlement’ development program with Homes England, IBI Consulting and East Cheshire District.
- Universidade Baja California Mexicali, visiting professor, with activities including: public keynote: 2 day 'Mind-Lab' with faculty / researchers, development of 'smart-wise' collective intelligence for the city-region, with a unique focus on political corruption: 1.5 day 'Synergy Lab' with local squatter community of brickmakers, facing eviction and/or poverty, a very practical focus with around 25 stakeholders, exploring pathways & road-mapping for the way forward: Public lectures etc.
- University of California San Diego - faculty keynote ‘how cities learn and think’
- University of Naples Federico Secundo, collaborative program: synergistic planning workshop with the Metropolitan Regional Authority of Naples
- University of Surrey, collaborative partnership with Dept of Computer Science, on participatory systems modelling & network analysis for sustainable natural capital.
- IPPR workshop panellist: ‘Mayors, industrial strategies and the future of inclusive growth’.
- Foresight Future of Cities – organized scoping meeting at the Regional Studies Winter Conference London.
- Belmont Forum London workshop on SUGI (Sustainable Urbanization Global Initiative) Food-Energy-Water Nexus, ‘inspirational introduction’ keynote, June 2018.

- Helsinki, 'Beyond the technical' consortium, facilitator of project workshop on 'Integrated Envisions, June 2018'
- Brandenburg Technical University, keynote lecture on 'cities in evolution or co-evolution' May 22nd
- Lisbon, European Trade Union Institute, facilitator of Foresight-III workshop on the future of the EU trade union movement.
- Malta Energy Institute, MCAST, keynote for European Green Week
- Qatar Foundation: Energy & Carbon Transitions program: coordinator / facilitator of route-mapping workshop. Doha, April 2018.
- Convenor of Greater Manchester Green Summit workshop 'Towards a Zero-Carbon City-Region': (for the Mini-Lab project).
- Facilitator of the 'Envisioning' workshop, Helsinki, (for the 'Beyond Technical' project for the Finland Academy of Science)
- Leader of the Smart-Wise Cities research pilot in India (Kolkata and Bhubaneswar), with various seminars and workshops, (funded by EPSRC Smart Cities in the global south program).
- Qatar International Energy & Carbon Transitions Conference: presentation on 'Low carbon pathways and the deeper ecological mind' Doha, Nov 2017.
- Qatar Green Building Council, seminar on Low Carbon Transitions, Nov 2017
- University of Paris-Saclay, Examiner for Phd by B.Tran, 'Folksonomies as representations of sustainable development'.
- University of Naples Federico II Institute for Research on Innovation and Services for Development, expert advisor on H2020 project, 'Circular models Leveraging Investments in Cultural heritage adaptive reuse', Dec 2017
- Manchester School of Architecture public lecture: 'peripheral resilience: green-blue post-cities and the deeper ecological mind'.
- Manchester Leadership Programme lecture - 'sustainability and beyond'
- Eversheds Sutherland conference 'Remaking Manchester - Placemaking and transformation' – panellist.
- European Science Foundation: new member of College of Experts, Strasbourg
- Session leader for the Chinese National Development and Reform Commission (UK Study Visit), (June 2017).
- JPI-Urban Europe conference on urban transformations: session panelist on 'strategic planning': May 2017
- Keynote & facilitator for major policy-research workshop, on Risk & Resilience in the Built Environment: Melbourne April 2017
- Keynote for seminar - Europe's City-regions: The Key Drivers For A Future Smart, Sustainable And Inclusive Europe, European Policy Unit, RMIT, Melbourne, May 2017
- Keynote for Smart Cities & Communities European delegation, Manchester, March 2017
- Keynote & facilitation at the Ecosystems Services & Poverty Alleviation workshop on urban transformation, London March 2017
- Keynote at the Indian Institute of Technology Chennai symposium on 'peri-urbanization prospects and perils'. Jan 2017

- Keynote at the Inclusive Growth for Smart Development workshop at the Inclusive Growth launch programme, Bradford, March 2017
- UGEC (Urbanization & Global Environmental Change) research development on Food-Energy-Water Nexus, Invited member of working group, New York, Jan 2017.
- Audio podcast on ‘cities from smart to wise’-  
<http://www.cityverve.org.uk/citycast-episode-5-with-dr-joe-ravetz-university-of-manchester/>
- United Nations Economic Commission for Africa, Senior Experts Dialogue on “African Cities As Innovation Hubs For Africa’s Transformation”, Johannesburg, (Keynote speaker), Nov 2016
- JPI-Urban Europe, Urban Transformations workshop, (panellist), Oct 2016
- Akademie for Raumforschung und Landesplanung conference, Munster, Germany: ‘Space in Crisis – The Future of Small & Medium-Sized Cities’, (Keynote ), Dec. 2016
- ICCR Foundation (International Institute for Social Science Research), Vienna, workshop on ‘The future of the social sciences’ (Panellist), Nov 2016
- N8 Northern Summit, ‘Northern Futures - Collaboration for Inclusive Growth and Prosperity’, (Panellist & Manchester host), Nov 2016
- People’s Plan for Greater Manchester, Alternative Economic Development, (panellist), Nov 2016
- University College London workshop on ‘Rural-urban development, an international perspective’(Presentation), October 2016.
- Academy of Science Finland, workshop on ‘Redefine: beyond MALPE coordination to integrative envisioning’, (Keynote). Aug 2016.
- Aalto University School of Engineering, Masters on Transport & Landuse Planning, (Academic Advisor), Oct 2016.
- Morgan Centre for Research into Everyday Lives, workshop on ‘Sketching the Social World’. (Keynote on visual thinking), July 2016
- MBS International Course on Foresight, (Guest Lecturer), July 2016.
- Keynote lecture for Global Sustainable Development Symposium: Granada, Spain, June 2016
- Guest lecture for York Centre for Complex Systems Analysis, June 2016
- RCUK-India Urban Transformations programme, presentation at bilateral workshop in Jaipur, India, March 2016.
- Keynote at the Ayojan School of Architecture & Planning, Jaipur, India: ‘From smart cities to wise cities: learning and thinking for an urban shared mind’.
- Keynote / seminar at University Los Andes, Bogota, Colombia: ‘technology foresight for the new economic world’
- RCUK ‘Urban Living Pilot’: Coordinator of multi-university consortium proposal (UoM, MMU, Salford), in collaboration with AGMA, NE, TFGM, NHS, GMP, etc (not selected).
- Presentation at ‘Unleashing Urban Innovation’ workshop, Manchester. March 2016.
- Seminar series as Visiting Professor at Naples Institute for Advanced Studies, University Federico Secundo, April 2016.

- Foresight study completed on Horizon 2020 Third Strategic Programme, for EC DG Research & Innovation: (co-convenor with SAMI consulting).
- UK Defra Horizon Scanning project completed, as Coordinator of Expert Review Panel.
- Speaker for the UK Foresight on Future of Cities: Visions meeting, Sept 2015.
- Keynote at Dundee School of Architecture & Planning on 'Thinking cities and climate change action', Sept 2015.
- Discussant for the Independent Transport Commission HSR Greater Manchester Workshop, Oct 2015:
- Convened CURE Annual Forum on Foresighting a Future for Cities, June 2015.
- Convened workshop for the Government Office of Science Future of Cities Academic Network.
- Presented the 'synergistic governance' method at the International Workshop on "Policies supporting Sustainable Transitions in Europe": coordinated by Center for Design and Innovation for Sustainable Transitions, Aalborg University – Copenhagen Campus:
- Urban Zone national program for sustainable urban development: JR is running capacity building program in Helsinki for the Finnish Environment Agency, including Environment Foresight workshop, Urban Zone workshop & public lecture - [http://www.syke.fi/en-US/SYKE\\_Info/Communications\\_material/News/Dr\\_Joe\\_Ravetz\\_is\\_a\\_visual\\_thinker\(32649\)](http://www.syke.fi/en-US/SYKE_Info/Communications_material/News/Dr_Joe_Ravetz_is_a_visual_thinker(32649))
- Keynote at the Future Climate Forum – 'State of the Climate' Series, on Cities & Climate Change, Manchester, Feb 2015.
- Keynote on 'Greater Manchester Futures' for the GM Climate Change Implementation Plan – Academic Workshop at THINKLab, Salford, coordinated GM Low Carbon Hub Research Forum.
- Commissioned on 'the Future of Urban Ecosystems' for the UK Foresight Future Cities project: <http://www.bis.gov.uk/foresight/our-work/projects/current-projects/future-of-cities>
- Member of the winning team of the world's 2<sup>nd</sup> largest economics prize (!!)
- <http://www.policyexchange.org.uk/media-centre/press-releases/item/david-rudlin-wins-the-250000-wolfson-economics-prize-2014>
- Presentation to RCUK conference on Transport Futures, Imperial College Business School: 'Social transport intelligence: self-organizing value chains for smarter cities & citizens': for the Research Councils UK Sustainable Society Network+ (SSN+) and the New Economic Models in the Digital Economy network (NEMODE)
- Hosted Greater Manchester Low Carbon Research Forum workshop, May 2014.
- Keynote presentation June 2014, with interactive visual techniques, to art-science-policy conference on 'Facing Extinction': at University of Creative Arts, Farnham: <http://gustavmetzgerucafarnham.wordpress.com/>
- the Sustainable Consumption Institute's first relaunched Seminar is with Joe Ravetz, entitled - "Low-carbon synergy and social intelligence – the internal logic of a transition pathway?": <http://www.sci.manchester.ac.uk/events/sci-external-seminar-series>
- Organized international workshop at the World Urban Forum 2014, Colombia, on the 'Cities Prosperity Index' (CPI),
- Guest speaker on 'smart cities & climate change': Interactive Academic Engagement with Policy Stakeholders – ESRC Knowledge Exchange Trials,



<http://www.humanities.manchester.ac.uk/socialchange/events/knowledge-exchange-trials/index.html>

- Keynote for International Roundtable for UN Habitat Global Parliamentarians: 'Urban Economics, port and historic cities': Split, Croatia
- Keynote for Royal Town Planning Institute conference on Urban Design: 'Urban design 3.0: creative synergy & shared intelligence'. Manchester
- Session at: x.Future.Innovation.Cities: NESTA experimental workshop exploring the impact of emerging technologies on our future urban landscapes.
- Facilitator of interactive session at – 'Creativity & Visual Knowledge - a conversation between the Arts and Sciences', John Rylands Library, Manchester University
- Appointed as scientific advisor to the Municipality of Naples, Italy
- Appointed as scientific advisor to the Municipality of Vellore, Tamil Nadu
- Expert advisor to UN-Habitat Secretariat of the 'Cities Prosperity Index' (CPI), with workshop at the United Nations Middle East Regional Centre, Tehran.
- Nominated as expert representing the British Academy, for the European Commission Horizon 2020 Advisory Groups, on themes related to sustainable development.
- Keynote for Royal Town Planning Institute conference: "The urban-rural challenge: planning for in-between spaces". Leeds Metropolitan University.
- Keynote lecture at the University of Sharjah, Dubai, UAE, School of Architectural Engineering, on 'a synergistic approach to built environment design'.
- Launched the results of the National Research Foresight in Mauritius on 21<sup>st</sup> March, with the Minister for Education & Science and various expert working groups. [http://www.mrc.org.mu/in-house\\_projects/national\\_research\\_foresight\\_exercise](http://www.mrc.org.mu/in-house_projects/national_research_foresight_exercise)
- public lecture at the Glasgow Institute for Contemporary Arts, on: "inter-connected policy for inter-connected problems in healthy cities". Following this Joe Ravetz ran a ½-day expert workshop at the Glasgow Centre for Population Health, with public health & related professionals. <http://www.gcph.co.uk/events/126>
- Joint Co-Chair of the Smart Cities Roadmap, part of the Smart Cities & Communities European Innovation Partnership: building a 'rolling agenda' for IT-driven innovation in urban mobility, energy efficient housing and smart grid power – <http://eu-smartcities.eu/>
- Joe Ravetz gave the keynote address to the UN Habitat parallel event World Urban Forum international conference on Port Cities – Magnets for Sustainable Development, Naples, Sept 2012
- Joe Ravetz is coordinating the EPSRC funded *Manchester Energy Foresight* project under the KTA programme ([www.energy.manchester.ac.uk](http://www.energy.manchester.ac.uk)): and also the *Manchester Security Foresight* project ([www.mbs.ac.uk/securityforesight](http://www.mbs.ac.uk/securityforesight))
- Joe Ravetz and Magda Sibley gave a joint keynote presentation to the UNESCO International Scientific Committee on the Economics of Conservation, at the conference in Malta on '*Ports as New Magnets for Urban Sustainable Development*'
- Joe Ravetz is a panellist at the EPSRC workshop '*Energy & Complexity: the Way Forward*', at the Environmental Change Institute, Oxford.
- Joe Ravetz gave keynote presentations on '*Foresight Scoping and Mapping*', and '*Cities, Megacities, Ecumenopolis*', for the International Foresight Training Course, at the Manchester Institute of Innovation Research, MBS.

- Joe Ravetz is giving the keynote on 'Sustainable Cities – the European Experience' at the Scottish Parliament expert workshop on 'Coordinated Agenda for Marine, Environment and Rural Affairs Science', Edinburgh.
- Joe Ravetz is giving a keynote to: **ICLEI** Informed Cities Forum 2011: Rio+20, local performance and the role of research: 26-27 October 2011, Naples, Italy
- Presentation on 'city futures and synergistic thinking' at the UN Habitat World Urban Forum consultation workshop on 'Futuring and city futures', Naples, Sept 2012
- Keynote & paper to EU Committee of the Regions: Available on: [http://urban-intergroup.eu/wp-content/files\\_mf/corurbangoverancefinal.pdf](http://urban-intergroup.eu/wp-content/files_mf/corurbangoverancefinal.pdf)
- Keynote address & working papers to the EC DG -Regio Urban Expert Group on Cohesion Policy, June 2010: [http://ec.europa.eu/regional\\_policy/conferences/citiesoftomorrow/programme\\_june.cfm](http://ec.europa.eu/regional_policy/conferences/citiesoftomorrow/programme_june.cfm)
- Keynote address to the French Ministry of Sustainable Development, Housing & Planning, January 2011: <http://www.developpement-durable.gouv.fr/Le-colloque-Faire-la-ville-durable.html>
- Session facilitator at UK Sustainable Development Commission final conference March 2011: <http://bigsustainability.org/tag/joe-ravetz/>
- Keynote to the Leeds City-Region conference, April 2011: <http://www.leedsmet.ac.uk/as/cudem/3D40B9DCADAC4037A499B69826DB346F.htm>
- Prizewinner in the 'Guardian Report' climate change policy innovation portfolio, presented to the Copenhagen IGCC, 2009, awarded for the 'Carbon Mortgage' scheme. <http://www.guardian.co.uk/environment/2009/jul/13/manchester-report-mortgage?intcmp=239>
- Keynote address to the Institute for Environmental Science, April 2009: <http://becominggreenblog.blogspot.com/2009/04/language-of-sustainability.html>
- Greater Manchester Policy Exchange, (coordinated Joe Ravetz): [www.manchester.ac.uk/policy-exchange](http://www.manchester.ac.uk/policy-exchange)
- Keynote address on '*Pathways to a One Planet Economy*' at the ESRC inter-disciplinary workshop on 'Complexity economics', Leeds, May 2009, [http://www.see.leeds.ac.uk/research/sri/projects/esrc-research-seminars/Complexity%20Economics%20forSustainability\\_seminar\\_2\\_summary\\_final.pdf](http://www.see.leeds.ac.uk/research/sri/projects/esrc-research-seminars/Complexity%20Economics%20forSustainability_seminar_2_summary_final.pdf)
- Coordinator of international workshop on 'Post-Normal Science: Retrospect and Prospect': St Annes College, Oxford, June 2009
- Coordinator of workshop at the International Society for Human Ecology conference, June 2009, on the theme of '*the meaning of human ecology: a multi-layer exploration*'

## ***Funded projects***

From 1997: shaded areas show medium-larger projects (over £50k net value)

<b>DATES</b>		<b>SPONSOR / CLIENT</b>	<b>PROJECT TITLE</b>	<b>ROLE</b>
<b>From</b>	<b>To</b>			
2019	2021	UKRI – ‘Towards a Sustainable Earth’	PERI-CENE – Peri-urban climate & environment	P.I.
2018	2018	EPSRC Smart Cities Global South	Smart Wise Cities in India	P.I.
2018	2018	GMCA	Natural Course Water Governance	P.I.
2017	2020	JPI Urban Europe	Learning Loops in urban environment	Co-I
2017	2018	Manchester-Melbourne Collaboration	Fire & Flood: toward resilient cities	P.I.
2016	2019	Academy of Science Finland	BEMINE: – integrated visioning	Partner
2016	2018	ESRC Impact Acceleration	Metropolitan INnovation & Intelligence Lab (MINI-LAB)	P.I.
2015	2015	EC – DG Research & Innovation	Foresight study on Horizon 2020 Third Strategic Programme	Partner
2015	2015	DEFRA	Environmental Futures Horizon Scanning	Partner
2014	2015	Government Office of Science, Foresight Unit	Future of Greater Manchester	Partner
2014	2014	Government Office of Science, Foresight Unit	Future of Cities Foresight: commissioned report on ‘Urban Ecosystems’	P.I.
2014	2017	European Commission, DG Research, FP7	CASI: Common Assessment for Sustainability Innovation	Partner
2013	2013	European Commission, DG Energy (CEPS / GOPA)	Smart Cities & Communities Stakeholder Platform	Partner
2012	2013	EPSRC Knowledge Transfer Action	Manchester Energy Foresight	Lead
2012	2013	EPSRC KTA	Manchester Security Foresight	Lead
2012	2013	EU Occupational Safety & Health Agency (coord.SAMI)	Green Jobs scenarios project	Partner
2011	2013	Mauritius Research Council	Mauritius National Research Foresight Exercise	Lead
2011	2012	Natural England (coord.SAMI)	Scenarios for the Natural Environment 2060	Partner
2010	2012	European Commission, DG Research, FP7	IKNOW – interconnecting knowledge	Partner
2010		UNIDO (United Nations Industrial Development Organization)	Foresight for Low Carbon Automotive Sector in Turkey & Eastern Europe	Lead

2010		DEFRA (coord.SAMI)	Future proofing for CAP reform trade negotiations	Partner
2010		European Commission, DG Trade	Trade impact assessment for the Andean & Libyan trade agreements	Partner
2008		Rockefeller Foundation / Institute for Alternative Futures	Foresight for Smart Globalization	Partner
2007	2012	European Commission, DG Research, FP6	PLUREL – ‘peri-urban land use relationships’	UK lead
2007	2009	Environment Agency (England & Wales)	Application of futures methods to policy intelligence	Lead
2007	2008	Welsh Assembly Government (WWF-Cymru)	One Planet Wales	Lead
2007	2008	World Wildlife Fund UK	Sustainable communities in the West Midlands	Lead
2006	2007	World Wildlife Fund UK	One Planet West Midlands	Lead
2006	2007	Yorkshire Forward (Regional Development Agency)	Leeds 2050	Partner
2006	2010	UNIDO (United Nations Industrial Development Organization)	Technology Foresight: training & capacity building	Lead / Partner
2006	2011	EPSRC (SUE-2 program)	SUREGEN – Sustainable Urban Regeneration	Partner
2005	2009	WWF-UK	OPEN - One Planet Economy Network	Lead
2005	2008	South East England Development Agency / DEFRA	One Planet Economy Regional Assessment (OPERA)	Lead
2005	2008	World Wildlife Fund UK: Biffaward	Eco-Budget UK / One Planet Economy	Lead
2005	2007	Sustainability North West for Biffaward	Eco-Region NW: An interactive toolkit for resource productivity	Lead
2005	2007	European Commission 6 <sup>th</sup> Framework Programme	EUROCOOP: European Cooperation for regional innovation strategies	UK lead
2005	2006	SE Regional Assembly	Stabilizing the Ecological Footprint in the SE Strategy	Lead
2004	2007	European Commission 6 <sup>th</sup> Framework Programme	INTELCITIES: ‘Intelligent Cities’	Partner
2004		University of British Columbia, Canada ,SDRI	Georgia Basin Futures Project	Expert
2004		Stockholm Environment Institute / North West Regional Association	A Preliminary Ecological Footprint of the NW Region	Partner
2004	2005	Ecosys / White Young Green Environmental Ltd /	ASSESS: benchmarking for env. business & waste management	Partner
2004		ONS (Office of National Statistics)	UK Material Flow Accounts: methodologies for TMR & overburden	Partner
2003	2006	European Commission 6 <sup>th</sup> Framework Programme	INSURE: regional sustainability indicators & systems dynamics model	UK lead

2003	2005	European Commission, 5 <sup>th</sup> Framework Programme	REGIONET – evaluation of regional sustainable development	UK lead
2003	2004	Environment Agency (England & Wales)	'Scenarios': futures studies methodologies & applications to policy & management	Lead
2003	2004	DEFRA (Department of Environment Food & Rural Affairs)	DEFRA science Forward Look 10 year strategy	Partner
2003	2004	Stockholm Environment Institute / Ecosys / SEEDA	Taking Stock: a mass balance & footprint analysis of the SE Region	Lead
2003		NWRA - climate	Spatial implications of climate change	Lead
2003		ESRC & Institute of Alternative Futures,	Scenarios for rural economies & landuse	Sub/c
2003		Manchester City Council	Building Schools for the future: Ecological footprint appraisal	Lead
2002	2005	Environment Agency: with Cambridge Econometrics	REWARD - Regional & Welsh Appraisal of Resources & Development	Partner
2002	2004	Enviro-Centre / Biffaward	Intermodal transport for waste & recyclables	Lead
2002	2003	Irish Environmental Protection Agency	National Spatial Strategy: sustainable settlements modelling programme	Lead
2002		North West Regional Association	Sustainability communications framework	Lead
2001	2002	UK Countryside Agency	Sustainable Development in the Countryside Around Towns	Lead
2001	2002	Sustainability NW	Application of the Atlas NW	Lead
2001	2002	United Nations University Tokyo, Institute of Advanced Studies	Urban Environmental Transition – scaling from local to global	Expert
2001		EU-DG Environment / JRC-ISPRA (Sustainable Towns & Cities)	Review of Local Sustainability Indicators	Lead
2000	2001	RTPI (Royal Town Planning Institute)	UK Spatial Planning Framework	Partner
1999	2000	Irish Environmental Protection Agency / University of Limerick	National Spatial Strategy: methodologies for sustainable settlements planning	Lead
1999	2000	Yorkshire & Humber Regional Assembly	Regional Climate Change Strategy Development	Partner
1999		EU-JRC-Ispra	Integrated assessment concepts & methods	Lead
1998	2001	EPSRC	Regional interactive Sustainability Atlas	Lead
1998	2000	SNW / NCBS / Biffaward	Regional resource flow audit	Lead
1997	2000	European Commission 4 <sup>th</sup> Framework	Integrated Visions for a Sustainable Europe	UK lead

1997	1999	ESRC (Global Environmental Change Fellowship)	Integrated assessment & economic evaluation	P.I.
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## ***Teaching, training, tools & techniques***

### **Doctoral supervision & examination**

<b>Dates</b>	<b>Location</b>	<b>Student</b>	<b>Topic</b>	<b>Role</b>
2019-	UoM	Eman Abouzyan	Mapping the Spatial and Socio-technical Dynamics of Urban Metabolism: towards Sustainable Urban Development in Egypt	1 <sup>st</sup> supervisor
2018-	UoM	Charles Kwaku Oppong	Urbanization of Peri-Urban Landscape: Sustaining Households Livelihoods in Peri-Urban Communities	1 <sup>st</sup> supervisor
2016-	UoM	Dimas Visnu Adrianto	Rethinking sustainable city-regions in developing countries: urban sprawl and the emergence of planning and policy	1 <sup>st</sup> supervisor
2008-15	UoM	Michal Miedzinski (PT)	Public policy for long-term societal challenges? The reframing of policy narratives and the ' <i>Roadmap to a Resource Efficient Europe</i> '	1 <sup>st</sup> supervisor
2011-16	UoM	Elnaz Ghafoori	Urban micro-publics as a social regeneration strategy: exploring the socio-cultural dimensions of retail marketplaces	1 <sup>st</sup> supervisor
2008-10	UoM	Kai Zhou	Public participation in GIS:	2 <sup>nd</sup> supervisor
2004-6	UoM	Joanne Tippet	Ecological design & public participation	2 <sup>nd</sup> supervisor
2016	UoM	Andrew Snow		Internal examiner
2016	Paris Saclay	Bastien Tran		External examiner
2013	UCL	Tom Cohen		External examiner
2006	ETH Zurich	Alexander Walter		External examiner
2004	UoM	Jemma Williams		Internal examiner
2003	Univ Salford	Xiaonang Zhang		External examiner
2001	Univ Surrey	Steve Lucas		External examiner
2014-	U. Liverpool	Peter Fawcett		Advisor
2013-	UoM	William Lamb		Advisor
2011-2	Univ Hull	Tony Hodgson		Advisor
2011-2	MMU	Cristina Rodriguez		Advisor
2006-8	UoM	Manoj Kumar Roy		Advisor

## **Under graduate / post-graduate teaching**

In 2005-7 I completed a new module in Urban Design for the first semester of the post-graduate Masters in Planning. This was challenging to organize, as it involved students from no less than 8 different course combinations, full and part time. It was also running in the newly formed School of Environment and Development. The course brought together experiences from various teaching roles over the last 15 years:

- Problem-based learning approach in studio format, using peer evaluation techniques.
- Close coordination with visiting lecturers to provide every student with individual tutorials.
- Focus on visualization and mapping techniques, IT and other practical studio skills.

## **Other teaching**

I have been involved with occasional teaching at undergraduate & masters level, both complete course units and one-off contributions, including:

- planning for regional sustainability: (new course unit)
- environmental science & management:
- urban design module (new course unit)
- urban regeneration project (new course unit, involving active resident participation)
- Analytic & professional skills: (revised course)
- urban policy & practice:
- research methods:

The techniques mentioned above have been developed and used in these courses, , including problem-centred learning, interactive class forums, studio group exercises, problem mapping techniques etc.

## **Extra-mural teaching**

Various teaching and training assignments have been carried out 1998-2013, in the UK and abroad, with full details in the summary below.

The teaching roles in university situations have each contributed to the teaching and curriculum agenda as detailed below. The professional training roles have overlapped with the many keynote presentations and seminar leads around the UK and EU. Since the publication of the keynote book *City-Region 2020* in 2000, the demand for seminars and



training from the UK and overseas now exceeds available time. Significant teaching / training experiences have included:

- UN Industrial Development Organization, Technology Foresight training
- Manchester Institute of Innovation Research, International Foresight Training Courses
- Urban Institute Ireland, Dublin, seminar series
- Manchester Business School overseas programme:
- Northwest Regional Development Agency (NWDA), sustainability training
- IDPM environmental management programme:
- PREST foresight training programme, 2001-03
- DFID overseas training projects:
- Cheshire County Council / NWRA senior management programme:
- Forum for the Future regional futures programme:
- Manchester Metropolitan, Dept of Applied Community Studies.
- Chalmers University of Technology, Goteborg: Graduate Course in Urban Development, 1996 – 1999
- Hull Business School, Systems Research Unit
- MA in Third World Studies, 1993-96, Institute of Advanced Architectural Studies, York

The professional training approach has followed the principles of ‘integrated planning for sustainable development’ as in City-Region 2020. The application of this has emerged as a pedagogic method which is loosely titled ‘*interactive agenda-centred mutual learning*’. This is a further development of the widespread ‘problem-based learning’ approach, dealing with situations typical of the sustainable urban development agenda, where problems and opportunities often overlap. The seeds of this were sown in my early 1973 paper ‘*Practical Deschooling*’, and then followed up in my organization of a UCL student conference ‘Urban Futures’ in 1975. The approach includes the following elements:

- Baselines / futures: thinking strategically about the definition of problems, organizational tasks, dynamics and trends, and how these may evolve into the future.
- Linkages: the bigger picture in time, space, and cause/effect, for the problems falling between sectors and organizations, and the goals and targets which emerge.
- Opportunities – techniques for thinking ‘beyond the box’, to find new solutions for the bigger picture, in a continuous process of organizational learning and personal development.

## **Innovative work & curriculum development**

The ‘Knowledge Capital Inter-professional Studio’ was a prototype programme run jointly between the School of Planning & Landscape and the Manchester School of Architecture, in 2002-2003, with the help of Curriculum Innovation funding. The studio project work focused on the urban sector which links the 4 HEIs of Manchester and Salford. The agenda concerned knowledge-based and creative industries as a key to urban regeneration, and this was also part of a real-time policy and development initiative – the

*Manchester Knowledge Capital* project. The project also aimed at producing a ‘template’ for use in similar inter-professional course developments in the future and in other disciplines. Overall, the project demonstrated four distinct types of innovation, each concerned with collaborative learning:

- *Inter-professional theme*: The project demonstrated how the roles and contributions from different professions could be brought together in a creative studio setting, with an emphasis on visualization and mapping.
- *Stakeholder interaction theme*: There was a constructive linkage with a high level policy initiative, including for direct feedback from policy makers at Pro-Vice Chancellor level.
- *Agenda-based learning theme*: This approach extended the well known ‘problem-based’ learning to a more exploratory and multi-disciplinary focus on complex problems and potentials in the urban system.
- *Evaluation theme*: there was a process of reflective analysis in several stages, as below. The results were seen in enhanced contributions from the majority of students.

Also, I had previously developed for the department in 1999 a prototype structure for a 3 year BSc in Urban Regeneration & Development. In the event this proposal was overtaken by the changes resulting from the RTPI professional accreditation process.

### **Statement on teaching**

As a professional researcher, the teaching and training activities above are seen as an extension of the knowledge development process, rather than as a competition. In particular the ‘*interactive agenda-centred mutual learning*’ approach above has shown itself as a learning experience for myself, as much as the students. The focus on visualization, multi-level problem scoping, futures studies, systems analysis, actor / network / organizational mapping, and creative opportunity design, is a direct implementation of the principles of sustainable urban development, as set out in various books and papers.

The same approach has also inspired recent academic initiatives, such as the organization of the international conference on ‘evaluation of sustainable regional development’ for the EU project REGIONET in 2003. This was structured around an intensive case study process which aimed to accelerate the group learning process beyond the normal process of an academic conference. It also underlies policy-oriented research such as the REWARD programme on modelling regional production and consumption, which also involves an organizational learning / professional training programme for regional policy-makers. In this light, my future strategy for teaching involves a further development of this approach of the ‘*interactive agenda-centred mutual learning*’. This would aim to include the following:

- Application to a range of undergraduate and postgraduate courses.
- Further development of agenda-oriented and student-centred teaching and learning techniques, particularly using ICT and participative techniques

- Fostering a portfolio of postgraduate and doctoral studies which contribute directly to the research programme on sustainable urban / regional development.
- Equipping other members of the research and academic team in relevant professional training techniques.

## ***Consultancy & collaborations***

Joe Ravetz Associates is a flexible and mobile consultancy resource, for small-medium projects, operating in tandem with the academic work of CURE. We offer a custom-made service to clients who are committed to moving forward the state of the art on sustainability in urban and economic development, social policy, and environment/climate issues. Details on <http://urban3.net/joe-ravetz-associates/>

Joe Ravetz is a Principal at SAMI Consulting, a premier resource on strategic futures, innovation management and organization change. Various projects over the years include major government contracts with DEFRA, BIS, Environment Agency, Natural England, EU Occupational Safety and Health Agency (details on [www.samiconsulting.co.uk](http://www.samiconsulting.co.uk))

Other major collaborations / networks currently include:

- Manchester Institute for Innovation Research  
<https://research.mbs.ac.uk/innovation/>
- International Creative Cities Laboratory (<http://www.creativecitylab.org/>)

## **Foresight & graphic facilitation**

Joe Ravetz is an experienced futurist & graphic facilitator, with experience in visualization processes in deliberation and visioning.

He previously worked with the Institute for Alternative Futures using interactive techniques for a series of high level scenario workshops for the UK Government's Economic and Social Research Council (ESRC). Recent samples of graphic facilitation output can be found on:

- <http://www.altfutures.org/vulnerability2030>
- <http://www.rockefellerfoundation.org/blog/foresight-smart-globalization>
- <https://osha.europa.eu/en/topics/green-jobs>

Related projects and freestanding materials can be found on (temporary site)  
<http://urban3.net/visual-thinking/>

## Informatics & interactive urban intelligence

Joe Ravetz is keen on the potential of ICT for enabling of ‘urban intelligence’, and has developed two software prototypes since 2011.

One is the ‘**Synergy Forum**’, which enables structured dialogue for social collaboration and learning on the synergistic model (<http://www.synergy-demo.hedtek.com/>). This is designed for discussions on complex problems, using futures and foresight methods, where collaboration is the best way forward. The Synergy Forum creates a round table meeting in virtual space: not to replace the human factor, but to extend it for more effective results. We can map the patterns of agreement, analyse key words, vote on common questions, and find new collaborators and synergies in a larger Forum.

Another is the ‘**Local Forum**’ which enables multi-lateral dialogue between stakeholders with local interests: <http://sed-gis1.humanities.manchester.ac.uk/tus/>. This ‘proof of concept’ prototype brings together community discussion forums with google maps platform, and standard geo-spatial data, all based on the Tellus social/spatial technology. With this, local communities can better organize neighbourhood initiatives, plans, projects or networks: policy-makers and service providers can consult on local needs and wishes, using spatial overlays in combination with locally based dialogue (spatial data is currently based on Greater Manchester, to be extended to the whole UK).

Joe Ravetz was in the development team for the i-Know EU-funded platform for horizon scanning and Grand Challenge thinking, (<http://community.iknowfutures.eu>): and continues collaboration through [www.futuresdiamond.com](http://www.futuresdiamond.com). Earlier, he was also a member of the team which produced the award-winning REAP software <http://www.sei-international.org/reap>. Previously he was PI for the EPSRC funded ‘Regional Interactive Sustainability Atlas’, 1999-2002. This provided (in DVD format) a combination of multi-layer GIS, an interactive scenario model adapted from the Vancouver-based Metroquest (<http://metroquest.com/>): and a ‘time-machine’ scenario visualization tool for 2050. A follow-on project ‘Eco-region NW’ is online (but without interactive functions): [http://hosting.creativeconcern.com/ecoregion/index\\_summary\\_role.php](http://hosting.creativeconcern.com/ecoregion/index_summary_role.php)

Overall this development track follows the use of ‘informatics’ (IT plus knowledge management) to enable inter-connected thinking. It’s clear that informatics has huge potential as a catalyst for social learning and ‘urban intelligence’.