PLUREL

PLUREL M3 – *an EU research consortium*

MANCHESTER KNOWLEDGE CASE STUDY

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1. Summary

Background

Urbanization and development in peri-urban areas is one of the most critical issues facing the UK and EU.

In the UK there is the challenge of where to build 3 million houses in the next 12 years – green belts, flood plains, contaminated brownfield sites, or simply further into the countryside? And in the EU, there are much faster growing cities than in the UK – from the over-development of the Mediterranean coastal cities, to the rapid restructuring of Central and Eastern EU countries.

In all areas there are compound challenges – climate change impacts, growth in road traffic, ageing population, landscape stress, urban-rural migration, farm diversification, tourism impacts, and general pressure for urban development. There are many examples of how to respond to such issues, through local partnerships, community forests, diversification and so on. But as such pressures are likely to increase in the near future, and as funding for such initiatives is not certain, policy makers and stakeholders need the best available evidence and resources.

The PLUREL project

The PLUREL ("Peri-urban Land Use Relationships") is a large €10m consortium research project, funded by the EC, and coordinated by the University of Copenhagen. It aims to provide a state of the art scientific analysis of urbanization and spatial strategy for peri-urban areas. It includes advanced urban modelling and satellite monitoring: detailed policy analysis: and a set of best practice tools and resources. (see www.plurel.net for details).

At the centre is a set of in-depth case studies in 7 cities, including the Greater Manchester city-region. We aim to provide a unique perspective on the peri-urban-rural areas surrounding the conurbation, by understanding the trends in the city system, and by working closely with stakeholders.

Case study method

The general approach follows a scenario perspective on future trends and possibilities over the next 40 years. This explores a series of 'what if' questions such as -

- Will the urban fringe become more of a playground for the rich or a working environment?
- What happens to community forests and similar ventures if the funding runs out, and are there alternative ways to sustain them?
- What are the likely effects of climate change, and what can we do to adapt to them?
- How can peripheral areas develop opportunities which meet economic, social and environmental goals?
- Should the green belt be used for growing bio-mass energy crops for the city?

Stakeholders

We aim to work closely with the organizations who are directly concerned with peri-urban issues. The selected stakeholders represent some the most significant area types and economic drivers in the Manchester city-region:

- The South Pennine uplands – mixed industrial settlements, commuter towns, small scale agriculture, leisure and tourism.
- The Red Rose Forest & Community Forest NW area – mixed industrial settlements, pressure from housing and transport, multi-functional green infrastructure development.
- The economic development agenda for the sub-region is represented by Manchester Knowledge Capital, a partnership enabler for innovation and knowledge-based enterprise.

Case study programme

- We aim to run a series of semi-structured interviews in each case study area, leading towards a workshop once a year.
- In 2008 the programme will focus on *current trends & policies*.
- In 2009 the programme will focus on *future scenarios & opportunities*.
- We will also convene a multi-area forum once a year, to share best practices and build European links.
- We will use a variety of methods, including an 'evocative' project using creative media.
- In mid 2010 these will be brought together and presented to the PLUREL international scientific meeting to be held in Manchester.

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2. The Manchester Knowledge agenda

a) Scope

The issue here is the relationship, which is very significant, but not often visible:

- the MKC agenda (and that of its partners and collaborators)
- the development and change of peri-urban areas.

This concerns the geographical / spatial dimension of the MKC agenda.
It also concerns the innovation / entrepreneurial dimension of peri-urban development and change.

What is the peri-urban

The peri-urban is a loose definition ….. focusing on most areas in the NW region which are not in (a) larger urban settlements, or (b) or protected countryside. It contains most of the regional land area and a large part of the population.

However the 'peri-urban' does not generally feature greatly in spatial strategy or economic strategy, apart from the zoning idea of the Green Belt. It falls between DEFRA and DCLG in policy terms. Natural England have an agenda for 'linking town and country' and the 'countryside around towns', but this is still framed as a marginal issue.

What is innovation

Innovation is also an agenda which has now become quite fluid and wide-ranging. It has recently shifted from the more linear R&D technology model, to a more diverse and organizational 'innovation systems' approach.

b) Key themes & questions

Here we look at some key themes, put as linkages and questions.

a) Regional innovation-related activity & peri-urban outcomes

Regional innovation >>> inward investment >> science parks >> environmental quality >> green field sites >> transformation of peri-urban areas

> Question – how could or should innovation strategy relate to its spatial & peri-urban impacts in a positive way?

b) Peri-urban development and innovation capacity

patterns of urbanization >>> peri-urban population change >> commuter settlements >> local economic decline >> loss of entrepreneurial capacity >> knowledge based enterprise policy >> innovation support systems >>

> Question - how could or should peri-urban areas and settlements best develop a more self-reliant and indigenous knowledge based economy ?

c) Linking city and hinterland

knowledge-based restructuring >> wireless communications >> flexible work patterns >> teleworking and mobile professionals >> decentralization and outward migration >> fragmentation and restructuring of peri-urban areas >>

> Question – how could or should the expanding commuter / teleworking belt be a constructive influence on a) peri-urban development, or b) the environment for knowledge based activity.

d) Links to peri-urban initiatives

> Question – is there scope for linkages & added value between MKC agenda and
>
> a) the Community Forest developments for rebuilding environment values: and (b) the Pennine Prospects eco-tourism / indigenous entrepreneurial model.
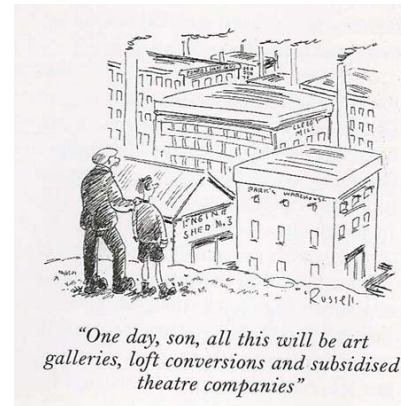
c) Trends & scenarios

These alternative futures are adapted from the PLUREL general scenarios for peri urban areas: (which are in turn adapted from the IPCC scenarios for world development and climate change).

Recent trends
Much of the GM Economic Development area shows the legacy of 250 years of industrial revolution and restructuring. Environmental quality is one of the main determinants of economic competitiveness, and of investment value, and hence location of new enterprises.

There are rapid trends and alternative scenarios to be explored in different areas –

- knowledge based economic development
- emergence of new forms of local economy
- climate change dimension
- housing & urbanization
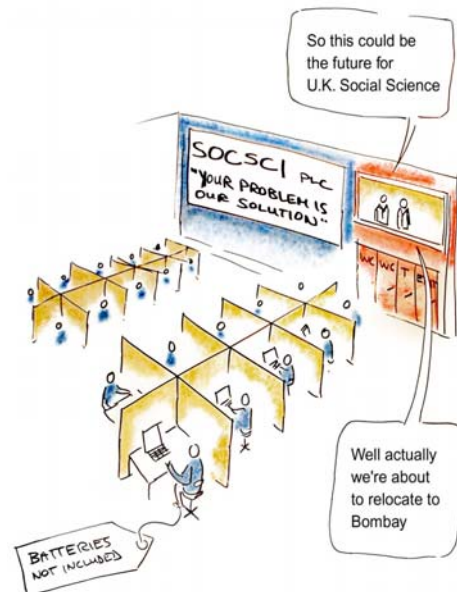- lifestyle, leisure & tourism

"One day, son, all this will be art galleries, loft conversions and subsidised theatre companies"

"Hyper-tech" - globalized / privatized scenario

Large parts of the urban fringe area are bought up by international property & tourist companies. Advanced IT enables new clusters of knowledge based professionals to live and work in dispersed locations in the landscape.

"Extreme water" – localized / privatized scenario

Local economies will steer towards indigenous development driven by private sector entrepreneurs. The more drastic possibilities of climate change kick in early, with a range of effects: river flooding: peat bog decline & soil erosion: ancient woodlands are subject to drought and fire. There is little public provision or adaptation programmes, and continued privatization of land, so the situation for local economies and communities is driven by short term profit.

"Peak oil" - globalized governmental scenario

The price of oil doubles, doubles again, and keeps on rising. Many fringe commuters who took for granted their journey to work now have to think again, causing out-migration and depopulation. In the background is a new level of international cooperation, and one effect is that all natural resources and spare land are utilized for alternative sources of energy and carbon storage.

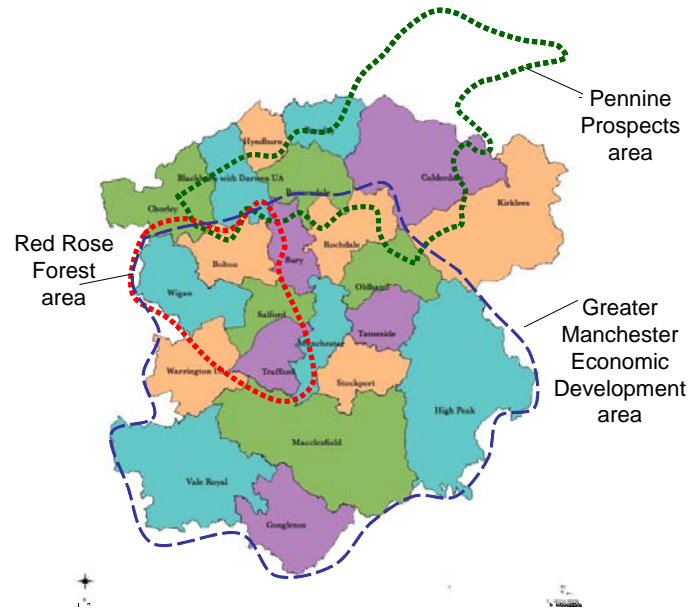*"fragmentation" – localized community scenario*

There is a resurgence in local collective enterprise, with farmers markets, intermediate labour, sustainable land management, small scale tourism and craft cooperatives. While there are stronger communities, there are inbuilt tensions about housing, land and business, which can easily serve to fragment locals from outsiders.

d) *Policy analysis*

Spatial scale issues

These are some of the effects which can be seen in a basic spatial analysis:

- Gravity effects to city-region centre / other edge hubs
- Corridor effects
- Visitor hub effects

Policy themes

Following this, major policy themes can be overlaid in spatial layers:

- Entrepreneurial capacity
- Green belt & other policy zoning
- Local housing & community policy
- Local economic development policy
- Transport & infrastructure policy
- Environment & landscape policy

Policy evaluation

For each of these there are questions to explore: (see also interview questions below)

- Is the policy / plan / programme working?
- Who are the winners or losers?
- What are the costs / benefits, economic or other?
- Is the policy for local or wider objectives?
- Does the policy encourage innovators and entrepreneurs?
- Does the policy enable integration & multi-level governance?
- Are there ways to improve?

Structural analysis

This looks more deeply at underlying themes of globalization, segmentation, innovation etc, which are clearly exposed in peri-urban areas: (this part to be led by Manchester Institute of Innovation Research)

- peri-urban zones of chaotic & creative experiments, urban residues etc
- peri-urban spatial planning as class competition for territory & control
- peri-urban as a zone of capital accumulation, or city versus rural interests
- re-invention of new socio-economic-cultural roles & agendas in obsolescent areas
- creative destruction of obsolescent economies and communities
- community initiatives as new social movements, socio-cultural enterprise etc.

Policy analysis method

Within limited resources this is more of an overview, not a detailed in-depth policy study;

- semi-structured interviews, and interactive workshop results:
- desk study of documents, graphic analysis and synthesis.

e) Technical analysis

Trend analysis

This looks at the combination of trends which are relevant: using either linear or spatial data where available. There is also a comparative analysis between trends in city-regions and urban fringe areas.

Economic trends:

- Economic restructuring
- Employment & occupation change
- Metropolitanization – rapid shift towards urban based socio-cultural structure
- E-society, entrepreneurial capacity, competitiveness etc. (see map below)
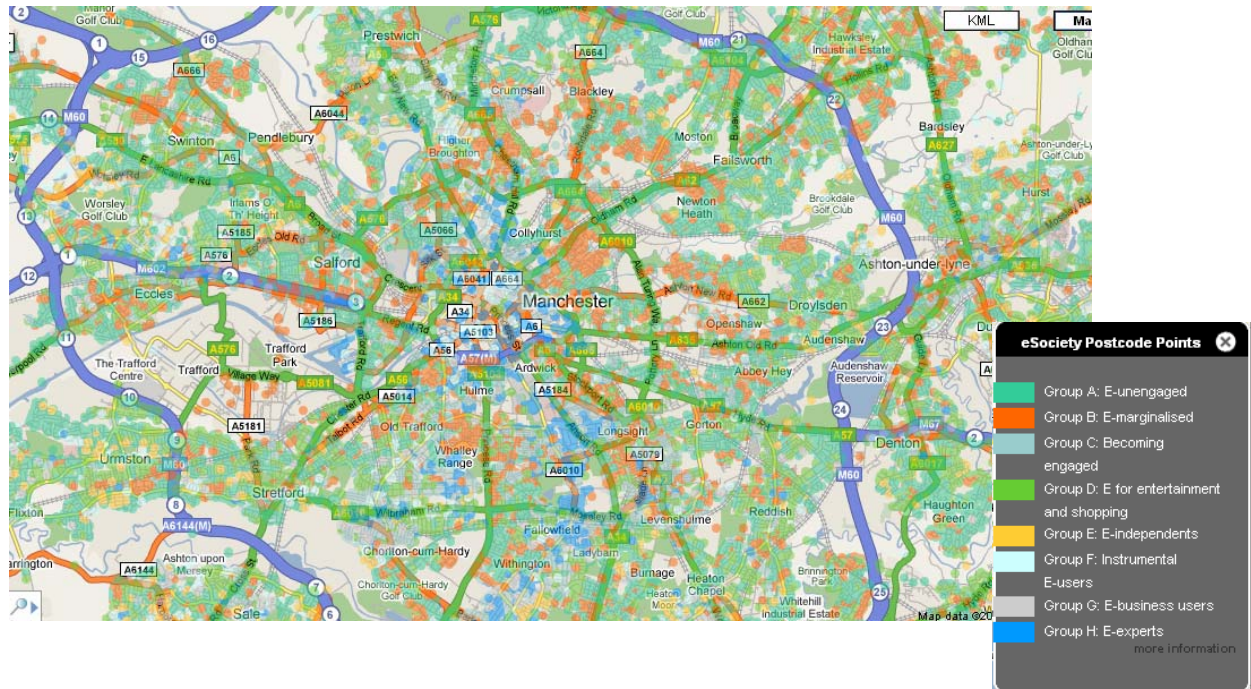
Social trends:

- Demographic change & migration
- Social structure
- Leisure & tourism activities

Urbanization trends:

- Housing supply & demand
- Housebuilding, location & density
- Transport mode changes

Environmental trends:

- Air & water quality
- Land use & land cover
- Biodiversity & habitat
- Urban morphology

Technical modelling

We aim to feed into the case studies the relevant parts of the Plurel modelling (economic, demographic, urbanization, landuse). The case study will also help to develop the later stages of the Plurel modelling strand:

Agent Based Modelling (ABM)

This is an experimental modelling technique, being developed in Module 4 of the PLUREL. The city-regions of Manchester and Leipzig have been selected for an indepth modelling study of stakeholders and institutions.

Systems modelling & mapping

This takes a more macro level view, to be defined: one possibility would be to explore the dynamics of metropolis-ation:

- look for patterns and correlations in the spatial data and trend data, between conventional spatial development modelling (population, economy, land-use, distance), and a wider set of components of metropolis-ation
- this could include: knowledge based occupations: urban cultural types: lifestyle patterns: connections to global economy and networks: attachment to natural landscapes: alternative worldviews.
- This might start with Acorn or Mosaic type socio-cultural data if this available.

3. Work programme

Summary of actions

- We aim to run a series of semi-structured interviews in each case study area, leading towards an annual workshop in late 2008 and another in late 2009.
- The 2008 programme will focus more on the present – *trends, challenges & policies*.
- The 2009 programme will focus more on the future – *prospects, scenarios & opportunities*.
- We will use a variety of methods, including an 'evocative project' with students producing creative media (details below).
- In spring 2010 these will be brought together and presented to the PLUREL international scientific meeting, to be held in Manchester.

Area programs

In each of the 2 main geographical areas, (Pennine & Forest), we anticipate the following detailed programme:

- 10-15 per year semi-structured interviews with selected stakeholders (members of the board or advisory group of partner organizations, plus other contacts who might be approached)
- annual workshop meetings in late 2008 and 2009, where initial results are presented and discussed.

There is a parallel strand in the first phase of the creative 'evocative project' (separate file).

The results will be presented at the international conference in Manchester, spring 2010.

2008 Research programme

Main focus for the semi-structured interviews: (see below)

- policy innovation – how to enable it? What are the results? how to improve?
- policy integration – how to work with many different parties & sectors ? what are the barriers? what are the opportunities?

Research inputs include:

- scenario model inputs from Plurel M1: adapted to case study in spring 2008: as an input to exploring 'trends and challenges'.
- technical inputs from local data – trends, projections, proto-model data, demographic model.

The result of this will be completed for the workshop at the end of 2008:

This will then inform the two main deliverables:

- D3.3.8 – evaluation of spatial strategies in the city-region, in the context of the scenario *'trends and challenges'.*
- D3.4.1 – initial report on scenario *'trends and challenges'*

2009 Research programme 2009

Main agenda for the semi-structured interviews & workshops:

- Future projections and scenarios
- Responses to problems and opportunities

Research inputs include in 2009:

- scenario inputs, as developed from 2008 programme:
- technical contributions from PLUREL modeling work in M2 & M4.
- Second phase of the 'evocative project' (see below).

The result of this will be completed for the workshop at the end of 2009:

This will then inform the main deliverable:

- D3.4.3 – report on scenario *'responses and opportunities'*.

Interview guide

(Detailed notes in separate file)

- Organizational questions – i.e. who does what?
- Policy & strategy questions – i.e. what are their aims?
- Driving forces, trends & processes – i.e. what is really going on?
- Peri-urban agenda – i.e. where are the problems / solutions coming from?
- Conflicts, trade-offs, inconsistencies – ?
- Priorities & values – i.e. how are decisions really made?
- Resources, human / knowledge – i.e. how are things achieved?
- Future trends & scenarios – i.e. what are the possibilities for change?

Evocative project

(Details in separate file)

As part of the research programme we propose to run an *'evocative project'*. This will mobilize the work of students in creative media such as art, video, photography or installation, to generate new insights on peri-urban issues.

The 'evocative project' will contribute to the in-depth understanding of peri-urban areas such as the CFNW areas, which goes beyond report writing. Its general aims include:

- Cultural perspective on the 'values' and 'discourses' of the community
- Widening the experience from 'decision-makers' to the surrounding community
- Using art and creative media to stimulate new ideas and insights.

The audience for this project will include:

- Decision makers in urban and peri-urban areas, with other stakeholders.
- Other stakeholders – businesses, developers, infrastructure, education.
- European partners and other case study stakeholders in PLUREL, who are also running similar projects.
- The general public in each of the selected areas.

The output is likely to be presented at the Manchester International Conference in mid 2010: it will also be online. Local exhibitions are also possible if co-funding can be found.

We are proposing that the Manchester Institute for Research into Art & Design (MIRIAD) at MMU, would take on the role of coordinator for various groups of students.

The start date is anticipated as late 2008, depending on a bureaucratic EU approval process.

4. Annex

Detailed programme

Month 1-24	DELIVERABLE	OBJECTIVES	METHODS	ANALYTIC FRAMEWORK
D.3.3.1 – 3.3.7	reports on regional planning and decision making and its impact on land use in the urban fringe *(Month 11-15).*	Brief history of the city-region Baseline landuse & socio-economic profile & trends. - Baseline of spatial planning / governance.	desk study semi-structured interview	technical baseline data issues matrix analysis stakeholder matrix governance matrix
D. 3.3.8-3.3.14:	Assessment reports of local and regional government and planning strategy *(Month 15-25)*	identify the criteria for spatial governance identify new opportunities evaluate policies / strategies by these criteria	desk study semi-structured interview panel meetings	benchmarking matrix evaluation matrix governance matrix actor network mapping
D. 3.3.15-3.3.21:	Workshop in the case study region on planning and decision making and its impact on land use in the urban fringe *(Month 20, 21, 22)*	promote dialogue with stakeholders & researchers test the initial findings develop the action research method	present results interactive group work action – research scenario initiative 1: including workshop & digital resource	governance matrix evaluation matrix
D. 3.3.22:	*EU conference on planning and decision making. (Month 23)*			
D3.4.1:	Outline for discussion and transplantation of generic scenarios in each case study region *(Month 24)*	explore the future trends and projections in peri-urban areas. adapt the generic scenarios to be relevant to case study problems & opportunities	desk study trend projection refer to M1 scenario framework & model output	technical data on trends & projections. other national / EU context scenarios
D3.4.2:	*Small European workshop on typology of urban regional dynamics (Month 25)*			
Month 25-48	DELIVERABLE	OBJECTIVES	METHODS	ANALYTIC FRAMEWORK
D3.4.3 - 9:	Report on enhanced planning strategies and decision making for urban fringes including scenarios for future land use development, including regional workshops *(Month 26 – 35).*	scenario report opportunity review policy recommendations	desk study action – research scenario initiative 2: including workshop & digital resource	Scenario matrix - to be developed. Benchmarking matrix
D. 3.5.1	*method for generalization and transfer*			