SPATIAL SCENARIOS FOR THE UK TO 2030

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INTRODUCTION

The exercise would spotlight "killer questions" that Government is currently failing to address

Last year the RTPI's UK Spatial Development Framework (UK-SDF) working group examined three scenarios that forecast the outcomes of three different spatial strategies that the Government is pursuing. It was intended the exercise would illustrate the real choices that exist in national level spatial planning and would spotlight "killer questions" that Government, to the detriment of its longer-term economic, social and environmental objectives, is currently failing to address.

A summary of the findings of the three scenarios is provided on the Table overleaf.

This work highlighted three major themes:

- The recognition that there are a number of functional areas in the UK
- Key indicators are required that describe national level outcomes.
- Spatial interventions can achieve desired national level outcomes.

These themes led the Group to adopt a two-phased approach to take forward the UK-SDF:

1. Phase One Compilation of data in order to develop conceptual maps of the current spatial structure of the UK, with an emphasis on commuting distances and times, migration flows and connectivity. The structure identified could then be further analysed on the basis of:

- population distribution and age structure;
- indicators of deprivation and quality of life;
- skills and qualifications; and
- land use and other environmental indicators.

2. Phase Two - Next Steps This work would lead on to the next phase of the project which would be develop illustrative and theoretical aspects of a UK-SDF.These notes are intended to suggest some directions for this. They envisage that this stage will lead to the development of ask some "killer questions" about national scale development investment and regulation and to develop proposals about the kind of techniques that should be used in developing a UK spatial strategy.
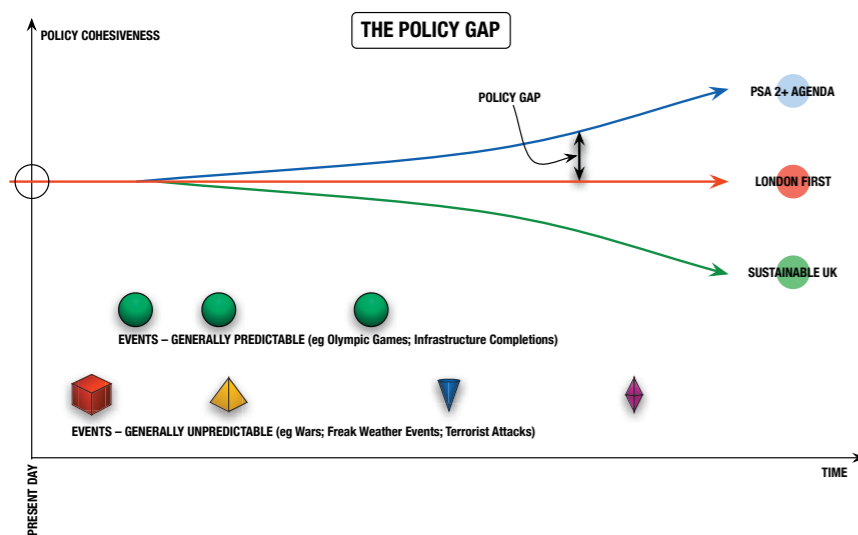
EXECUTIVE SUMMARY

SCENARIOS OVERVIEW

Policies that complement one another over the short term may follow dissimilar trajectories over the long term, resulting in an ever-increasing "policy gap"…

THE ART OF THE LONG VIEW

The likelihood that policies designed to complement one another over the short may follow increasingly dissimilar trajectories over the long term will result in a growing "policy gap" that will mean that policies must either be rethought or discarded. The figure also illustrates the way in which events – both predictable and unpredictable – can influence the policy process, or even throw it badly off track at the occurrence of a major and catastrophic event such as a war, or major environmental disaster. Such events may of course create policy gaps where previously there were none.

Over the longer term it is also important to be aware of the increasing likelihood that the "law of intended consequences" will come into play. In fact this is simply a colloquial expression of the notion of sensitive dependence on initial conditions familiar from chaos theory, and of the notion of emergence familiar from complexity theory. The point in this context is that what may seem like a minor policy initiative – a frivolous example might be an edict decreeing that everyone must smile at one other person in the street each day, with the stated intention of making the public realm more welcoming

– may result in unexpected outcomes; say a rise in productivity as a consequence of increased levels of trust amongst the populace. This trivial example does of course have its negative counterparts, but it illustrates how over the long term, small initiatives can have large and unexpected impacts.

Thus in exploring potential policy issues to do with spatial planning at the national level, we must in effect attempt the impossible, and try to assess not only what will be the intended results of such policies, but also the unintended results of such policies and their interactions with other polices: clearly no easy matter.

THE GOVERNMENT'S GUIDING PRINCIPLES

- Living within Environmental limits – improving the environment, protecting natural resources etc
- Ensuring a Strong, Healthy and Just society- meeting the diverse needs of everyone, promoting social cohesion and inclusion, creating equal opportunity for all
- Achieving a Sustainable economy – "Building a strong, stable and sustainable economy which provides

prosperity and opportunities for all, and in which environmental and social costs fall on those who impose them (polluter pays) and efficient resource use is incentivised"
- Promoting Good Governance
- Using Sound Science Responsibly

Of these, the economic principle, which we have quoted in full, is especially interesting; it replaces the previous requirement for "high and stable levels of economic growth" and it seems to us to embrace quality, diversity, resilience, and environmental sustainability in a more holistic way. When seen alongside the social and environmental priorities it seems to suggest a different approach, less concerned simply with "growth"; and one which moves away therefore from a simplistic concern with the role of London as a Global City. We feel justified therefore in putting that rather to one side for this exercise, though not of course ignoring it completely.
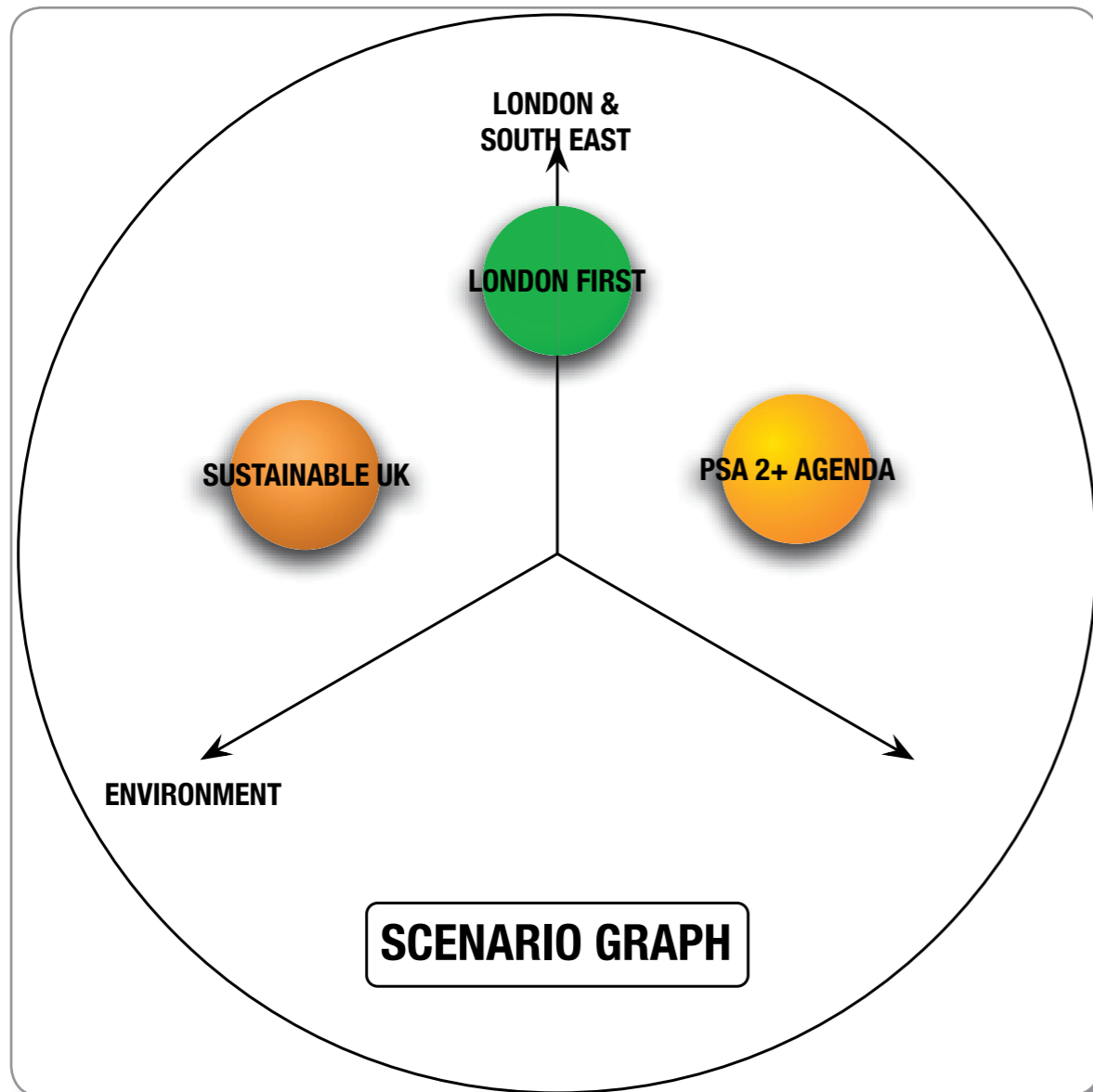
The four priorities for immediate action in "Securing the Future", shared across the UK, are

- Sustainable Consumption and Production – achieving more with less, reducing inefficient use of

resources, considering produc[tion?] materials across the whole life[cycle?] etc.
- Climate Change and Energy – profound change in the way w[e] generate and use energy and i[n] activities that release these gas[es]
- Natural Resource Protection a[nd] Environmental Enhancement
- Sustainable Communities

On the basis of these statements – [now?] enshrined as Government Policy – [and?] the fact that this exercise is a 25 ye[ar] look ahead, we feel able to be reas[onably?] radical in our approach.

THE POLICY GAP

POLICY COHESIVENESS

POLICY GAP

PSA 2+ AGENDA

LONDON FIRST

SUSTAINABLE UK

EVENTS – GENERALLY PREDICTABLE (eg Olympic Games; Infrastructure Completions)

EVENTS – GENERALLY UNPREDICTABLE (eg Wars; Freak Weather Events; Terrorist Attacks)

PRESENT DAY

TIME

LONDON &
SOUTH EAST

LONDON FIRST

SUSTAINABLE UK

PSA 2+ AGENDA

ENVIRONMENT

SCENARIO GRAPH

	Promoting the competitiveness of the London Global City Region	Promoting the competitiveness of the London Global City Region AND reducing the gap in growth rates between all the regions of the UK	Sustainable Growth
National Government Policy Driver	ODPM's Sustainable Communities Plan	PSA 2 Target	Sustainable Development Strategy.
Assumption	To compete at a global level, the UK must promote the "London Global City Region" (LGCR). LGCR is the centre for the location and support of high-value financial services and needs the capacity to maintain and capture investment in these global services. LGCR requires high levels of technological support and innovation, international transport connections, and the housing and education provision the workforce requires. Congestion, infrastructure overload, increasing inability to adapt to change and environmental degradation will compromise LGCR's capacity to compete in the medium to long term.	Policy must balance the global competitiveness of the UK with a commitment to equitable distribution of growth across regions. The self-reinforcing nature of the baseline scenario draws investment to the LGCR at the expense of other regions. Regional policy must aim to distribute the benefits of growth while maintaining overall levels of growth and competitiveness at an international level. There is concern however, that investment in other regions will not lever the same levels of return that investment in the LGCR will command.	Over the next 25 years the south east will become increasingly unfit for habitation. This scenario set aside the preoccupation with economic growth and the LGCR. It considered policies that would discourage development in the south east and place emphasis on development elsewhere, reduce unnecessary movement around the country, especially by road, prefer movement by public transport and support renewable energy. Alternative indicators for economic achievement are required i.e. "a strong economy, not a big economy."
Key Drivers of Change	The knowledge economy Business competitiveness Demographics Urban Form	The global economy Avoidance of climate change risks Congestion and other stresses on transport infrastructure Attempts to avoid perceived effects of social polarisation (between the "haves" and "have-nots") through redistribution policies.	Sustainable Consumption and Production, Climate Change and Energy, Natural Resource Protection and Environmental Enhancement Sustainable Communities
Outcome Indicators	GVA or GDP Employment Deprivation Housing development on brownfield land. Waste generation Income/property price ratios.	Difference in GDP per head per region and rate of change. Difference and rate of change in "health gap" (specific units to be identified) Change in graduate retention levels in regional cities. Comparative levels of disposable income. (AH) Unemployment rates (AH)	Investment in public transport (especially rail) versus road. Distribution of investment in transport infrastructure (airports, ports) Distribution of housebuilding Relocation of Government Investment in Higher Education Distribution of spending on arts and culture.

SCENARIO A – *LONDON FIRST*

PROMOTING THE COMPETITIVENESS OF THE LONDON GLOBAL CITY REGION

NATIONAL GOVERNMENT POLICY DRIVER: *ODPM'S SUSTAINABLE COMMUNITIES PLAN*

ASSUMPTIONS
To compete at a global level, the UK must promote the "London Global City Region" (LGCR). LGCR is the centre for the location and support of high-value financial services and needs the capacity to maintain and capture investment in these global services. LGCR requires high levels of technological support and innovation, international transport connections, and the housing and education provision the workforce requires. Congestion, infrastructure overload, increasing inability to adapt to change and environmental degradation will compromise LGCR's capacity to compete in the medium to long term.
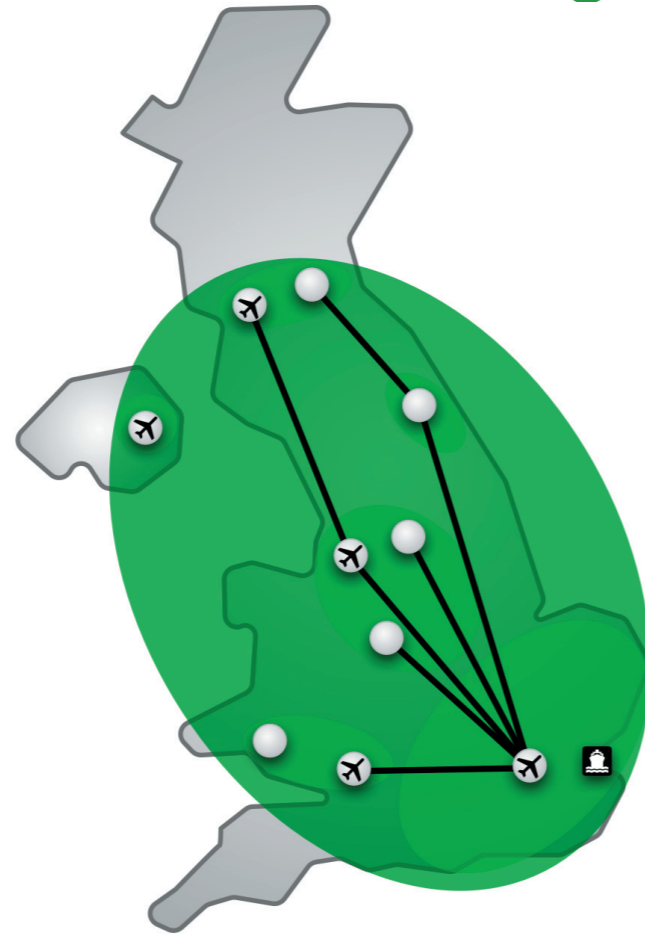
KEY DRIVERS
The knowledge economy
Business competitiveness
Demographics
Urban Form

OUTCOME INDICATORS	**Deprivation**	**Waste generation**
GVA or GDP	Housing development on brownfield land.	Income/property price ratios.
Employment		

I. OVERALL METHODOLOGY

(1)   Define meaningful functional spatial units by examining the spatial structure of the UK;
(2)   To identify the key drivers of change and development and relate them to key socio-economic and environmental outcomes;
(3)   To identify relevant indicators to measure the drivers and outcomes for the functional spatial units;
(4)   To establish the base scenario: continuous growth of London and the South East in the next 25 years to 2030.
(5)   Develop alternative scenarios by altering the assumptions on the outcomes and the required change of the drivers:
   •   Balanced regional growth
   •   Sustainable development
(6)   Compare the spatial patterns of alternative scenarios and interpret the implications to spatial planning at different spatial scales.

II. EXAMINING THE SPATIAL STRUCTURE

Following the work from others such as Manfred Sinz and the Institute of deprivation and improving environmental quality and use of resources.

Based on the headline Quality of Life indicators, five indicators are proposed:
•   GVA or GDP per capita
•   % working age at work
•   Index of Multiple Deprivation 2004
•   New homes built on previously developed land
•   Household waste per capita
•   Income and property price ratios

IV. KEY DRIVERS OF CHANGE

Based on the work of RW Ventures and Harvard University for the Chief Executive Officers for Cities (Weissbourd and Berry, 2004), 4 key drivers of change are identified. A number of indicators are proposed to measure these drivers:
Key drivers   Proposed indicators
Knowledge economy
   •   Supply-side over-qualification index: compare the number of population with degree and above qualifications with jobs requiring high skills
   •   Capacity of higher education institutes
   •   % high tech jobs
Business competitiveness

SCENARIO B – *PSA2+*

PROMOTING THE COMPETITIVENESS OF THE LONDON GLOBAL CITY REGION AND REDUCING THE GAP IN GROWTH RATES BETWEEN ALL THE REGIONS OF THE UK

NATIONAL GOVERNMENT POLICY DRIVER: *PSA 2 TARGETS*

ASSUMPTIONS

Policy must balance the global competitiveness of the UK with a commitment to equitable distribution of growth across regions. The self-reinforcing nature of the baseline scenario draws investment to the LGCR at the expense of other regions. Regional policy must aim to distribute the benefits of growth while maintaining overall levels of growth and competitiveness at an international level. There is concern however, that investment in other regions will not lever the same levels of return that investment in the LGCR will command.
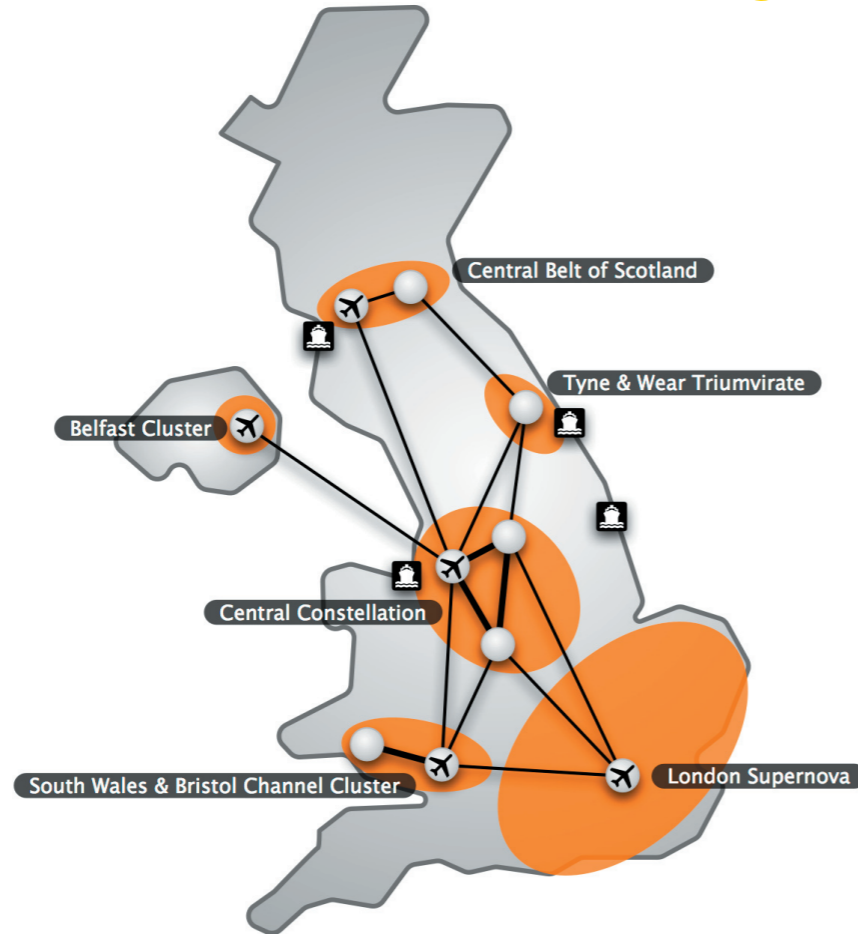
KEY DRIVERS

The global economy

Avoidance of climate change risks

Congestion and other stresses on transport infrastructure

Attempts to avoid perceived effects of social polarisation (between the "haves" and "have-nots") through redistribution policies

Central Belt of Scotland
Tyne & Wear Triumvirate
Belfast Cluster
Central Constellation
South Wales & Bristol Channel Cluster
London Supernova

OUTCOMES

Difference in GDP per head per region and rate of change.

Difference and rate of change

in "health gap" (specific units to be identified)

Change in graduate retention levels in regional cities.

Comparative levels of disposable income. (AH)

Unemployment rates (AH)

KEY DRIVERS OF CHANGE

These will comprise a variety of factors and events, some predictable, some not predictable. The obvious key drivers are the global economy and continuing environmental problems, but as important are the perceptions of risk that arise from these, and the way in which those perceptions are verified and then acted upon by policy-makers. That said, I would see the key drivers as:

the global economy (decides collectively who will have what sorts of employment and where)

perceived risks of climate change (in the UK - flooding; water supply issues)

progressive decline in effectiveness of transport infrastructure

the perceived problems arising from the emergence of a two-class society (the haves, and the have-nots. The cynic would observe that so long as this does not threaten the power elite's interests, it will not be perceived as a problem)

tendency of jobs to cluster in the South East versus social need for capital to disperse

ageing population and declining tax base

SCENARIO C – *SUSTAINABLE UK*

PROMOTING THE ENVIRONMENTAL SUSTAINABILITY OF THE UNITED KINGDOM

NATIONAL GOVERNMENT POLICY DRIVER: *SUSTAINABLE DEVELOPMENT STRATEGY*

ASSUMPTIONS

Over the next 25 years the south east will become increasingly unfit for habitation. This scenario set aside the preoccupation with economic growth and the LGCR. It considered policies that would discourage development in the south east and place emphasis on development elsewhere, reduce unnecessary movement around the country, especially by road, prefer movement by public transport and support renewable energy. Alternative indicators for economic achievement are required i.e. "a strong economy, not a big economy.
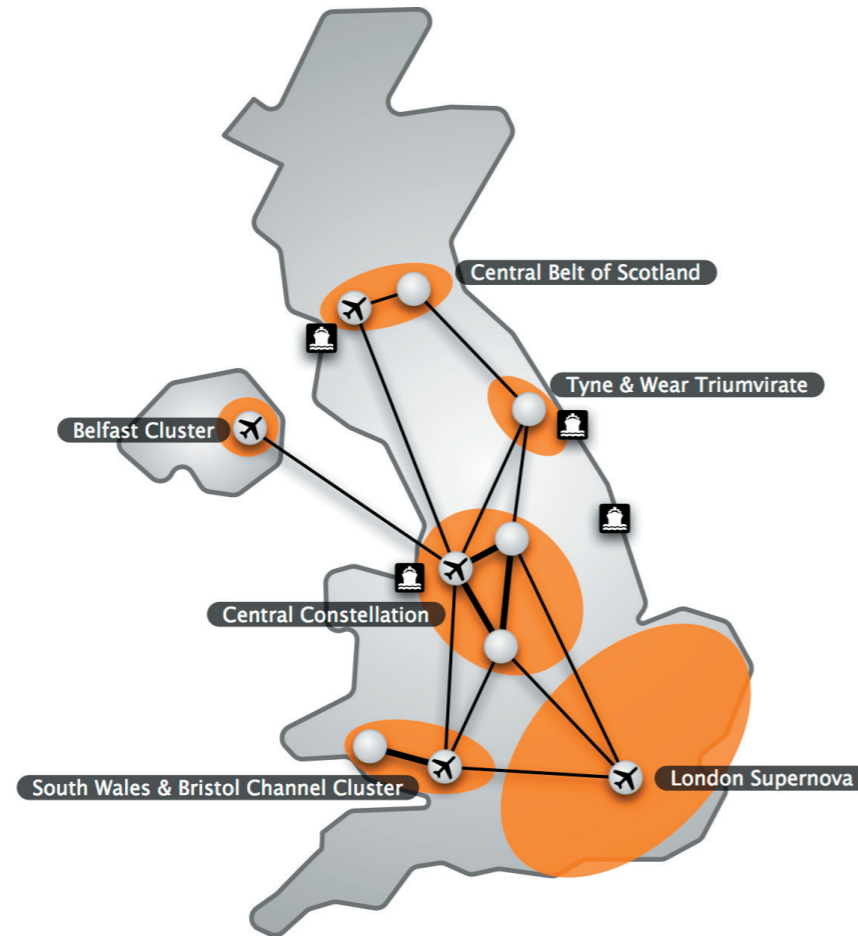
KEY DRIVERS

Sustainable Consumption and Production,

Climate Change and Energy,

Natural Resource Protection and Environmental Enhancement

Sustainable Communities

OUTCOMES

Investment in public transport (especially rail) versus road.

Distribution of investment

in transport infrastructure (airports, ports)

Distribution of housebuilding

Relocation of Government

Investment in Higher Education

Distribution of spending on arts and culture.

Central Belt of Scotland

Tyne & Wear Triumvirate

Belfast Cluster

Central Constellation

South Wales & Bristol Channel Cluster

London Supernova

Initially the group was concerned by the apparent emphasis in the brief on the global competitiveness of the South East. While recognising the facts of life, we preferred as a starting point the Sustainable Development Strategy ("Securing the Future", March 2005). And, in particular, the 5 guiding principles set out on page 16, which apply to the UK as a whole and not just England; and the "shared priorities for UK action" set out on p 17.
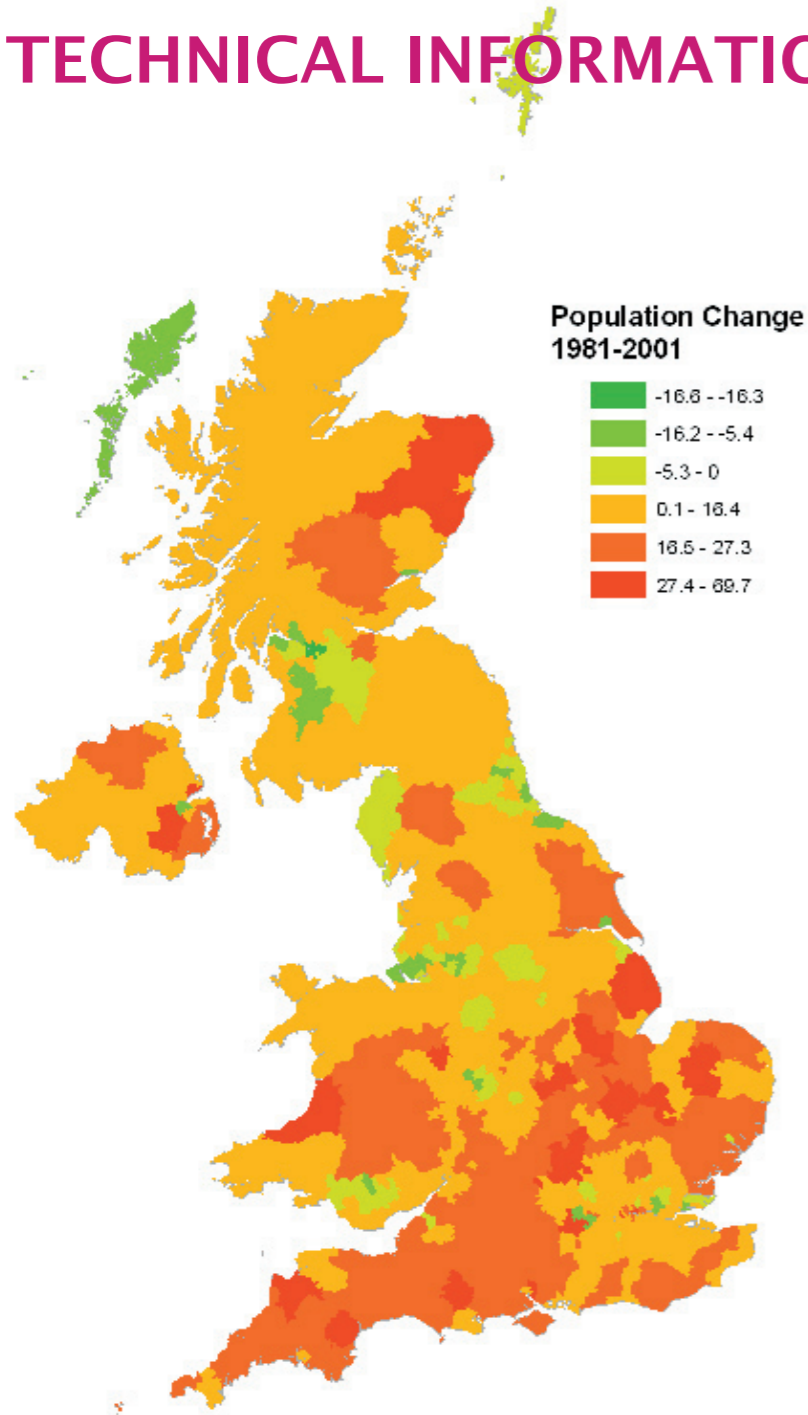
OUR GUIDING PRINCIPLES

From this starting point we developed a series of guiding principles for a UK Spatial Planning Framework. We place the same emphasis on "spatial" as the Government – we are not just talking about land use.

First, we anticipate that there will be many similarities between this option and the one which is considering the question of regional imbalance. A sustainable development strategy would be a strategy which sought to discourage development in the south east and to place emphasis on development elsewhere. There are many reasons for this, including:

1. Creating equal opportunity for all – one of the Government's guiding principles – operates at a Regional level – many outside the south east face diminished prospects educationally, economically, and even in terms of life expectancy.

2. The south east suffers from increasing congestion, noise and pollution which bring with them increasing costs for the environment and the economy.

3. It is in the south east that there are the most serious water supply problems

4. Densely populated parts of the South East are in danger from flooding

6. There are shortages of labour in the south east – already evident for example in terms of teachers, nurses, planners and other key workers. And dependence in the low paid sector on immigration, with poor working conditions in many areas.

Over the 25 year period which we are discussing we anticipate that the south east will become increasingly unfit for human habitation, will witness increasing damage to the environment, and will be increasingly incapable of accommodating a dynamic, diverse and sustainable world

TECHNICAL INFORMATION

Population Change 1981-2001

- -16.6 - -16.3
- -16.2 - -5.4
- -5.3 - 0
- 0.1 - 16.4
- 16.5 - 27.3
- 27.4 - 69.7

London and All Other GORs: Net International Migration, 1992-2001

THE NORTH-SOUTH DRIFT

The major migration flows within the UK in many ways reflect the long-established pattern of population drift from north to south. For example, the North East had an outflow of 2,537, and an inflow from just 345. In contrast, the South East had an outflow of 22,908 and an inflow of 28,760; an overall increase of 5,852. Overall, the strongest linkages by absolute numbers were between London, the East of England, the South East, and the East Midlands.

It is clearly shown in Figure 10 that the majority of UK regions are net losers when their migration relations with London and the South East are considered. The net flow between the North East and London between 2000 and 2001 was 909, while from the North West the figure was 1,919. There was, nevertheless, no net inflow from the South West or the East
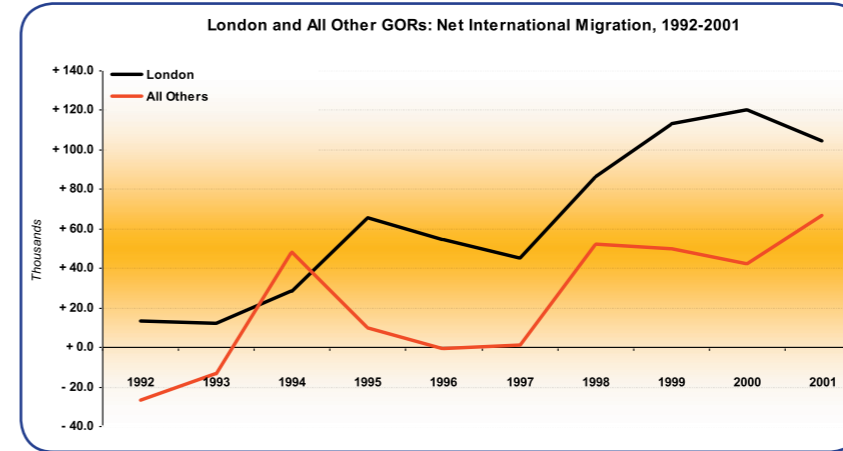
Midlands during this period.

THE SOUTH-EAST TRIANGLE

There exists a strong pattern of internal migration between London, the South East, the East of England and the East Midlands (see Figure 10). Between 2000 and 2001, 52,315 people moved from London to the South East or the East of England. Elsewhere, there was a net outflow from London to Northern Ireland, and also from the South East to Wales and Scotland, though in absolute terms these were relatively small.
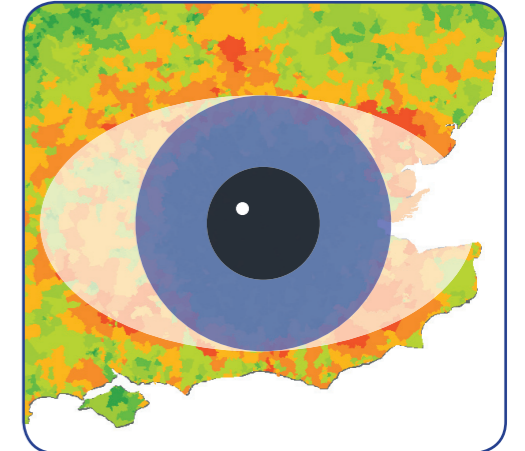
LONDON GRAVITY

Net migration between major urban areas in the UK clearly favours London (see Figure 11); not surprising when we consider its large population share and the job opportunities available

there. In terms of migration towards London, the strongest linkages are from Birmingham, Nottingham, Manchester and Liverpool. Significantly, the weakest linkages are between Belfast, Cardiff, Edinburgh and London. When examined net flows of more than 100 between the major urban areas of the UK, the significance of London and the English regional cities becomes clear. Also, the lack of connections of this level between Belfast and elsewhere is notable.

THE NORTHERN NEXUS

Other than the London, Manchester and Leeds (see Figure 11) also have significant inflows from other urban areas, although geographical proximity to other major cities is a factor here. It is also possible here to identify a 'northern nexus' in England, containing Birmingham, Leeds, Liverpool, Nottingham,

Net migration between major urban areas in the UK clearly favours London