



# **Integrated Policy Model**

## **Supporting strategy development across the West Midlands**

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# Overview

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- Integrated Policy Model – what will it do?
- Integrated Policy Model – how can it be used?
- Integrated Policy Model – why is it better?
- Policy Outputs – what will it tell me?
- How does it work.....?
- Next steps

# Integrated Policy Model – What will it do?



- Significant enhancement to functionality of our existing REEIO model
  - Limitations identified during preparation of RES evidence base
  - Difficulties judging wider effects of policy options
  
- Modelling across local areas within the Region
  - Initially the 34 local authority areas
  - Includes interactions between neighbouring areas
  - Possibility to extend to smaller geographical areas
  
- Modelling more than just a single theme
  - Economic and environmental (like REEIO)
  - Population demographics and housing
  - Co-determination – each influences the other

# Integrated Policy Model

## – How can it be used?



- The model will allow regional and local organisations to
  - model the potential effects of an intervention/development on neighbouring areas. For example impact of major developments like New Street station or redevelopment of Ryton
  - It can model the potential impacts of different housing allocations for different areas within a single framework
  - Test the impact of population expansion on employment or environment
  - Or the impact of economic growth on population
  
- Wide variety of potential users, including:
  - Regional policy makers and strategists
  - Local authorities
  - Investors
  
- **The model will provide a powerful Decision Support Tool!**

# Integrated Policy Model – why is it better?



- It is an important advance in how we can support the evidence for strategic planning
- Our project represents an interactive methodology rather than a ‘Black Box’ model.
  - It can be used by researchers and analysts in conjunction with policy makers.
- The model will allow policy makers to narrow down strategic options in advance of more concrete project selection.
- Our approach is complementary to existing approaches which work well over shorter time horizons where relationships between variables are relatively stable. Our project will complement and support other models in the Region, including
  - PRISM – transport planning
  - REEIO – regional economic and environmental impacts from production of goods and services
  - REAP – Ecological and Carbon Footprint derived from consumption of goods and services

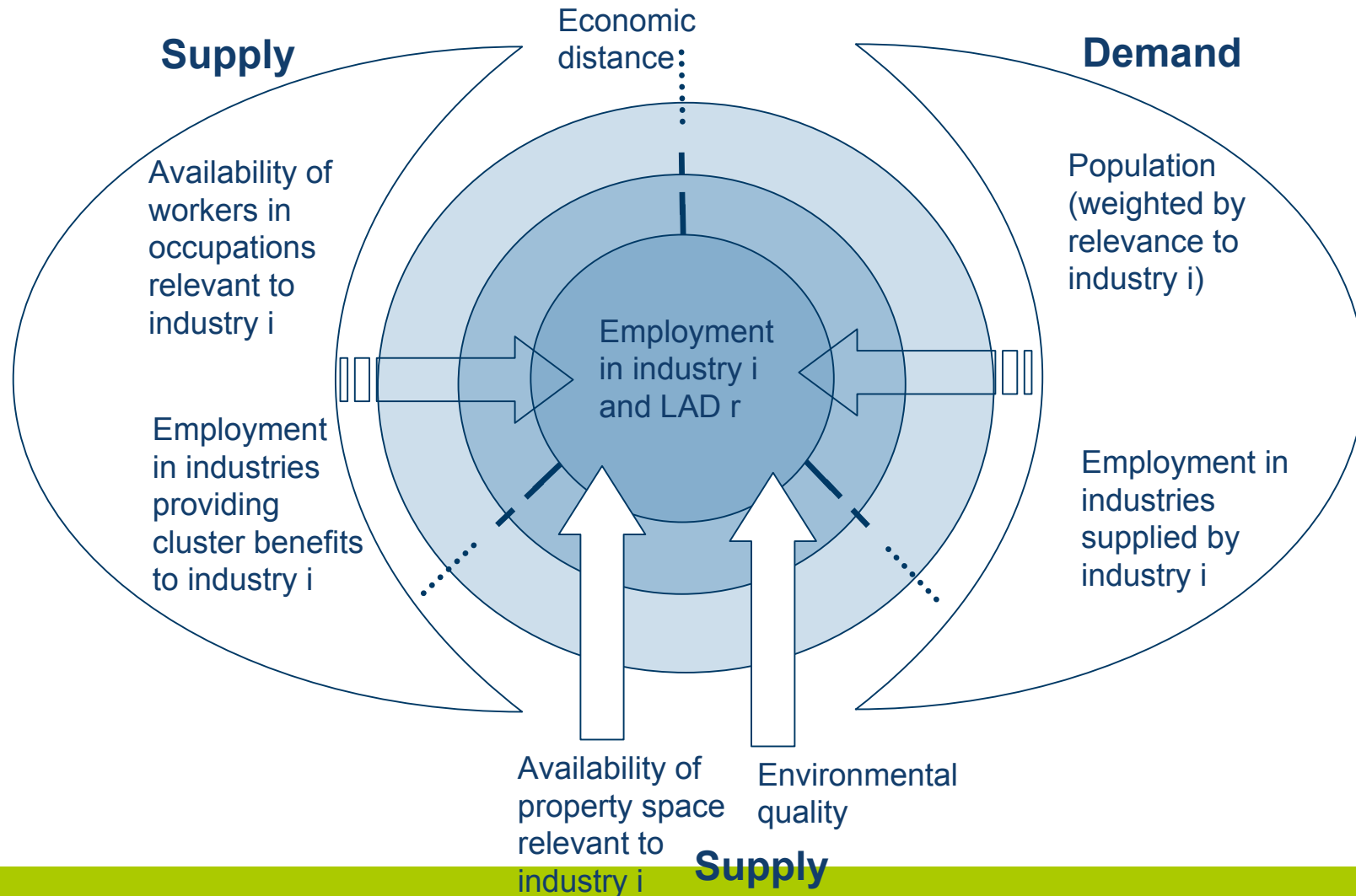
# Supporting Local Authorities in the Context of the Sub-National Review



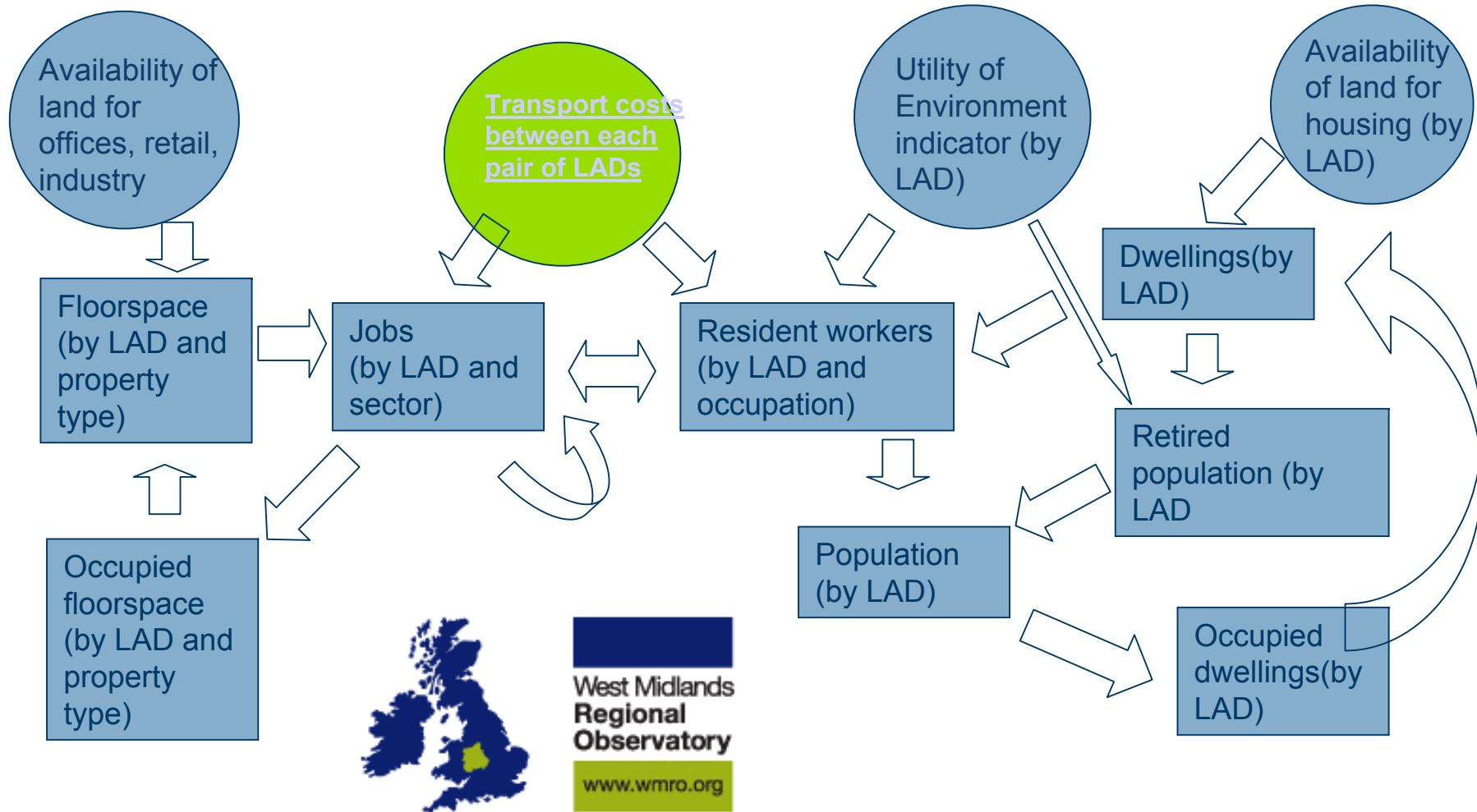
- Projections for value added and employment by detailed sector for each local authority
  - taking account of national/regional sectoral changes
- Projections of population growth and housing demand
  - consistent with projections for jobs
- Understanding the drivers of each local authority's economic development
  - impact of regional strategy and local initiatives



# Determination of Employment



# Key Relationships in the Integrated Policy Model - how does it work?



## Next Steps


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- The model is currently being finalised
  - Final stages of calibration being completed by Cambridge Econometrics
  - Delivery of BETA model due 1<sup>st</sup> week in October 2008
  
- Model will be used to inform a number of regional and local projects
  - Regional projects examining implications of employment land and housing supply on regional economic growth
  - Use by LSC to examine skills implications of new developments
  - Model will be integral to developing economic strategy for Coventry, Solihull and Warwickshire
  
- The model will play an important role in the emerging evidence base for the Single Integrated Strategy



## Many thanks

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# Policy Outputs – what will it tell me?



For each local authority, annually to 2031

Employment and economic activity	Population and households	Environment
<b>Jobs in total and by industry</b>	<b>Population by gender and age-band</b>	<b>Energy use by type of user</b>
<b>Value added in total and by industry</b>	<b>Resident workers by occupation</b>	<b>CO2 emissions by type of user</b>
<b>Occupied and vacant floorspace by property type</b>	<b>Number of households</b>	
	<b>Number of dwellings</b>	

# Policy Outputs Relevant to Regional Spatial Strategy



What happens in one part of the Region has effects elsewhere	The model is explicitly designed to capture spatial interactions/spillovers
Urban renaissance	Interaction of housing and jobs Sectoral detail to capture restructuring of jobs in cities Focus on drivers of what makes an area an attractive place to live and work
Rural renaissance	Demand for housing in rural areas Impact of changes in accessibility through transport improvements
Communities for the future	Amount and timing of new homes to be built in different parts of the region
Prosperity for all	Allocation of land for employment sites
Quality of the environment	Energy use, CO2 emissions How environment affects jobs and population
Transport and accessibility	Impact of changes in accessibility through transport improvements

# Policy Outputs Relevant to Regional Economic Strategy



Headline indicators	GVA per head, GVA per worker, CO2 per £10k GVA
Business	GVA in sectoral detail Identifying drivers of location of jobs, by sector (access to market, cluster and agglomeration benefits, access to labour)
Place	Impact of changes in accessibility through transport improvements How allocation land for housing and jobs contributes to sustainable communities
People	Sustainable living (housing and jobs) Achieving potential (jobs and workers by occupation)