London and South East Regional Model (LASER3.0): SOLUTIONS applications
LASER3.0: Introduction

- An integrated land use and model, which WSP Policy & Research developed for DfT
- Based on research and modelling since 1988
- MEPLAN software
- Covers London, South East and East of England
- Model structure dictated by
  - policy concerns
  - data availability
- WSP’s input to SOLUTIONS funded by DfT/ODPM
Exogenous Employment
- By industry
- Airports

Employed households
- SEG
- Car availability

Non employed households
- Children, Adults and the elderly
  - By
    - Income level
    - Car availability

Employed Residents
- SEG
- Car availability

Workforce
- SEG
- Car availability

LASER3.0 Land Use Model Structure
- Input data
- Trades / trip matrix
- Observed data
- Model output

Census household data
- Census employed households
- Census employed residents: SEG
- Census employed residents: car ownership

Housing demand
- Housing Supply

Local Education
- Personal Business travel
- Home based Recreation travel
- Education travel
- Shopping travel

Local Retail
- Home based business travel

Out commuting
- In commuting

Children, Adults and the elderly
- By
  - Income level
  - Car availability

Home based business travel

Home based Recreation travel

Education travel

Shopping travel
Commuting to City of London and Westminster:
(SEG1: Blue; SEG2: Green; SEG3: Brown; SEG4: Red)
Mode choice

All passenger trips, AM peak
Summary

Suitable for
- Longer term responses
- Choice between all passenger modes
- Trip lengthening over time
- User pricing policies
- Congestion and traffic that is choked off
- Impacts of land use policy

Limitations
- AM peak only (7-10am)
- Short term local accuracy
- Matching individual link loads
- Representation of individual bus services