Research by Ben Still

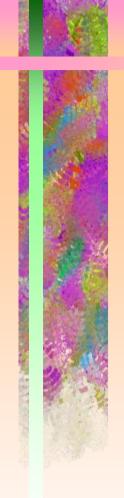Examined planners' view of three methods and their results:

- Delphi method

- Simple land-use model (DSCMOD) linked to horizon-year transport model (START)

- Dynamic land-use/transport interaction model (DELTA/START)
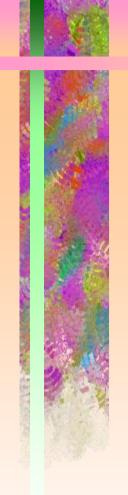
Findings: usefulness

Models must produce

- **forecasts of required variables (very small set)**

- **appropriate spatial units (detailed)**

- **an acceptable base case**
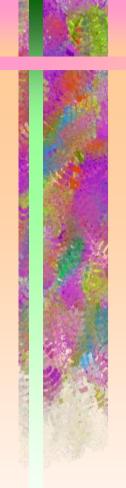
Findings: confidence

Confidence is based upon

- **reputation of modeling team**

- **understanding and acceptance of key relationships and sensitivities**

- **transparency - results must be explicable**

MEPLAN LASER validation study

- **Validation restricted by availability of consistent data**

- **Data processing in model development also limits validation**

- **Validation therefore restricted to relatively simple analysis of end result of very complex process**
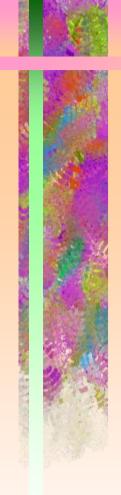
Validation - general issues

- Need to define exogenous inputs:

  1. wider economic variables

  2. retrospective description of planning policy

- What other refinements have to be made?

- Findings may not be clear-cut

Calibration/validation over time

- **Calibration results to date entirely static - performance over time is critical**
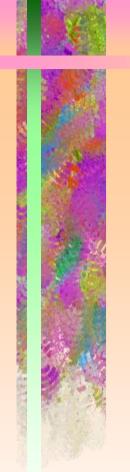- **Calibration or validation?**

Integrated vs connected models

Integrated:

- single software package

Connected:

- new land-use model added to existing transport model

- can be fully integrated as software

- consider merits of full system, not land-use model alone

Other points: model design

- **How critical is consistency?**

- **Importance of investment and capacity - recognized in urban models (eg URBANSIM) than in regional models (eg TRANUS)**

Other points: approach to modeling

- **Importance of local calibration vs modeling as accumulation of knowledge**

Other points: use of models

- **Need for formal arrangements to make sure that the claimed advantages of models are delivered - and retained**

- **Need to give more attention to running multiple scenarios and testing for robustness - focus on making right decision under uncertainty, not on exact results**