Moving Travel Models to the Next Level

Synthesis of Advanced Practices

in Travel Forecasting

Greg Erhardt , Parsons Brinckerhoff, 415-307-6974, erhardt@pbworld.com

Rolf Moeckel, Parsons Brinckerhoff, 505-881-5357, moeckel@pbworld.com

Jon Williams, Transportation Research Board, 202-334-3245, jwilliams@nas.edu
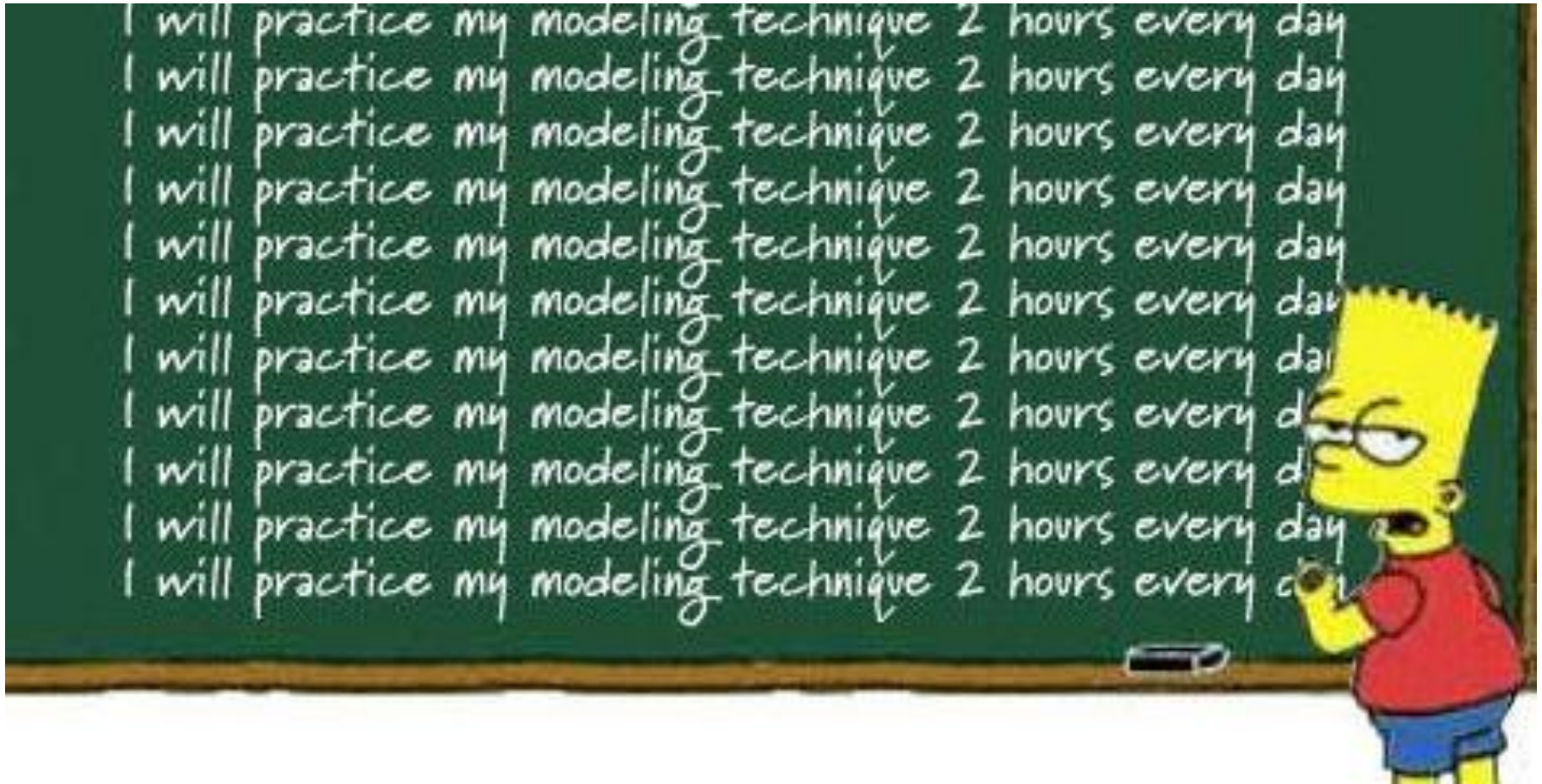
Moving Travel Models to the Next Level

- Approach & Definition

- Benefits

- Obstacles

- Lessons Learned

- Case Studies

Focus on implementation and management, not on technical details
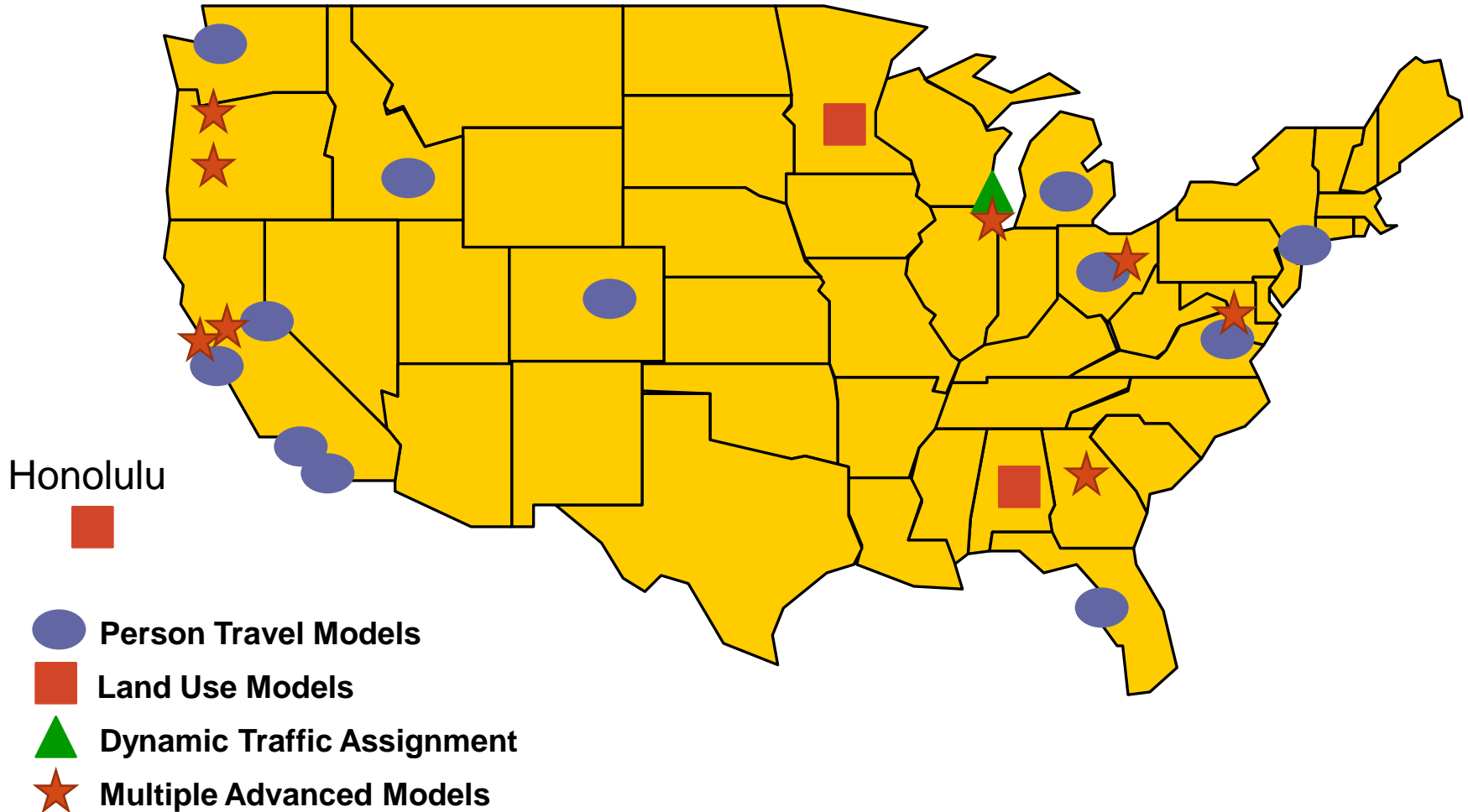
Advanced Practice

Advanced Practice

- Tour & Activity-Based Models

- Land Use Models

- Freight and Commercial Movement Models

- Statewide Models

- Dynamic Network Models

Anything beyond a 4-step model

Agencies Interviewed

Honolulu

Person Travel Models

Land Use Models

Dynamic Traffic Assignment

Multiple Advanced Models

Benefits

Benefits depend on the questions

Matching traffic counts not generally cited as a major benefit

Obstacles to Implementation
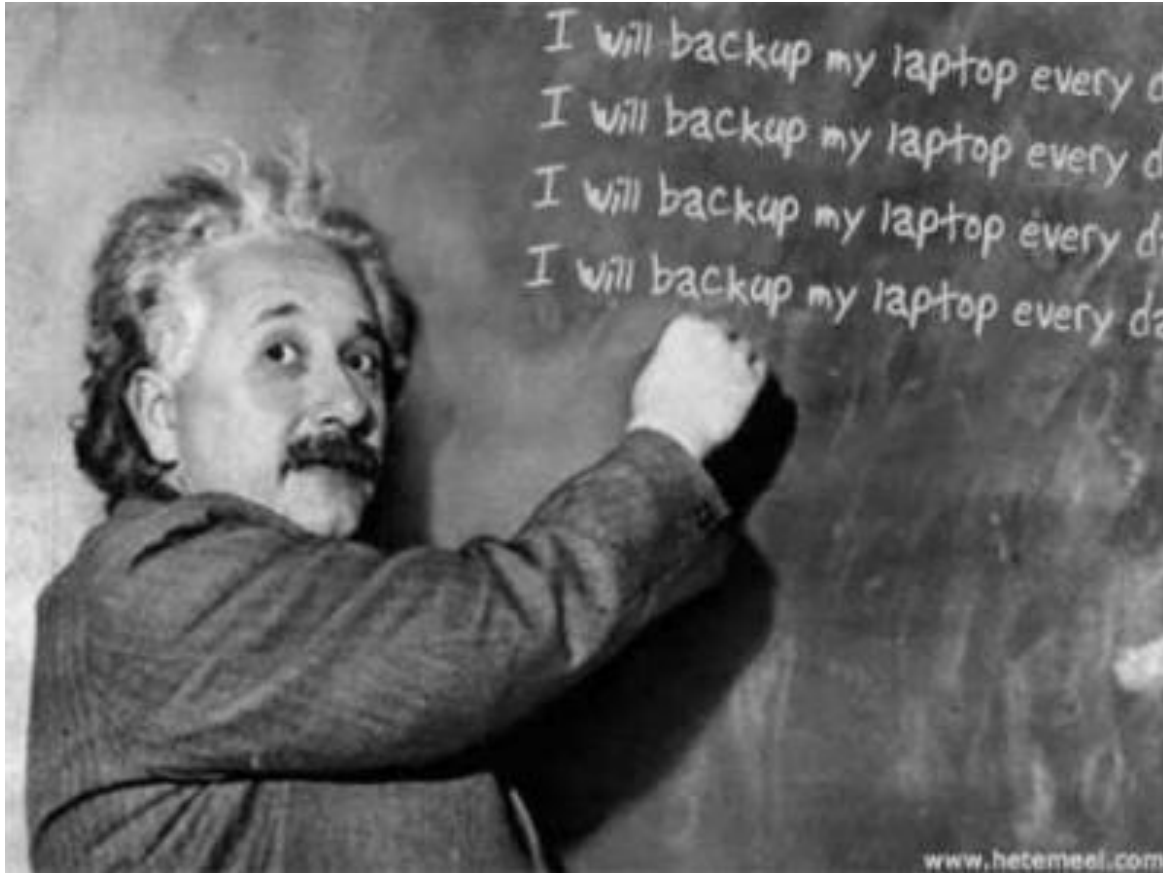

They're not that bad!

Obstacles to Implementation

- Perceived as too complex

- Not sure they validate well

- Limited commercial software

- Hardware & runtime requirements

- Data requirements

- Development time & cost

- Staff capability & retention

Lessons Learned

Lessons Learned

- Have a champion

- Write a model development plan

- In-house vs. consultant

- Use agile development (a.k.a. don't bite off more than you can chew)

Align model with the policy questions

San Francisco Case Study

- Focus on policy questions
  - Time-of-day for Doyle Drive
- Use agile development
  - Start with county model
- Have a champion
  - Joe Castiglione & Billy Charlton
- Benefits
  - "Results don't look weird"
- Other Lessons
  - Readily extensible for future applications

Sacramento Case Study

- Focus on policy questions
  - Started with Blueprint planning
- Use agile development
  - Use existing tools, then ABM
- Have a champion
  - Gordon Garry & Bruce Griesenbeck
- Benefits
  - Placer Vineyard application, SB 375
- Other Lessons
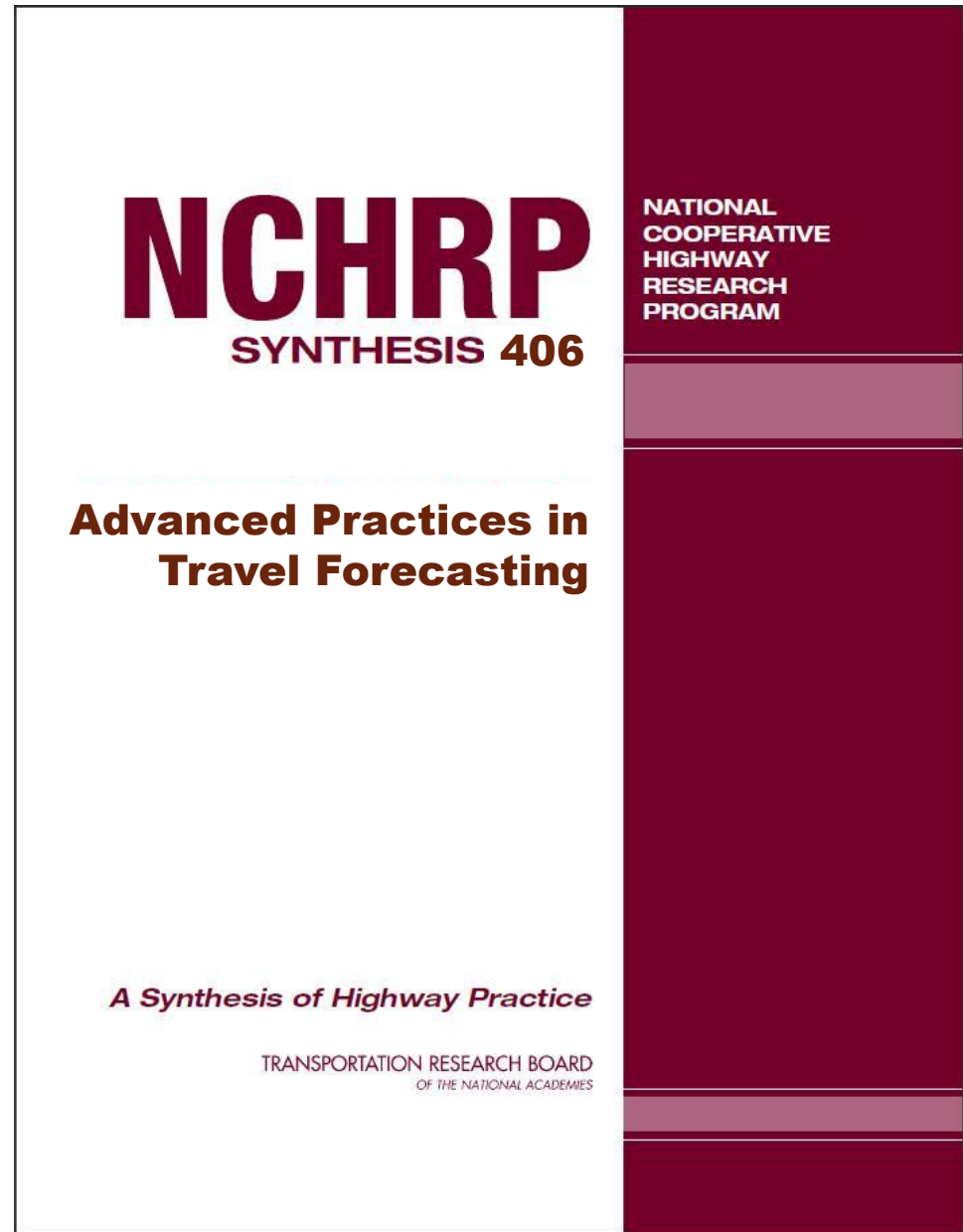 - Trade-off between in-house vs. consultant development

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Panelists & Staff

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Doug MacIvor,   Guy Rousseau,
Jon Williams,   Ken Cervenka,
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Phillip Reeder,   Rebekah Anderson,
Supin Yoder, Yali Li

Authors

Rick Donnelly, Greg Erhardt,
Rolf Moeckel, Bill Davidson

Questions ?

Greg Erhardt , Parsons Brinckerhoff, 415-307-6974, erhardt@pbworld.com

Rolf Moeckel, Parsons Brinckerhoff, 505-881-5357, moeckel@pbworld.com

Jon Williams, Transportation Research Board, 202-334-3245, jwilliams@nas.edu