

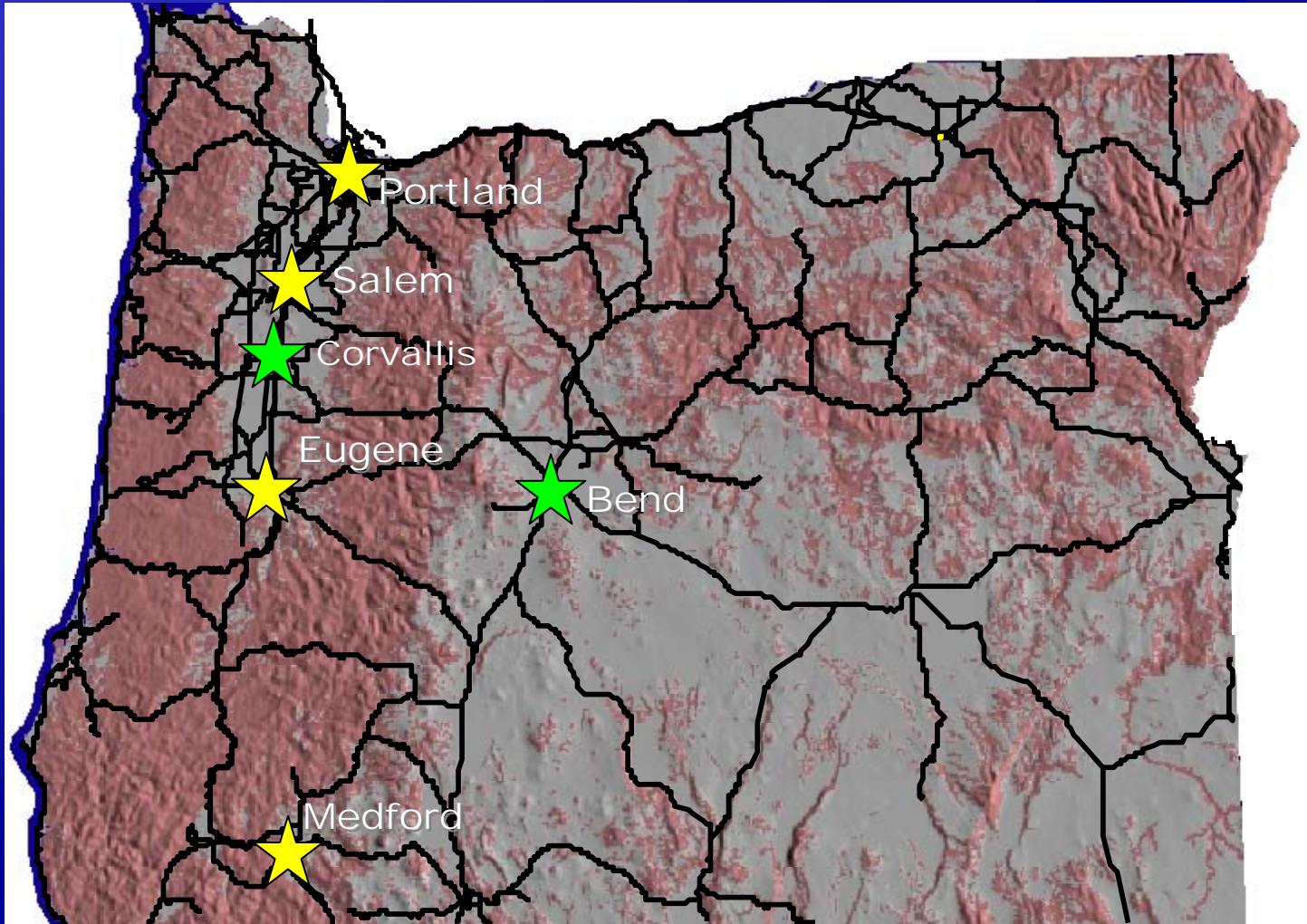
OREGON MODELING IMPROVEMENT PROGRAM



**Third Oregon Symposium on
Integrated Land Use & Transport Models**

July 23, 2002

WELCOME TO OREGON



EARLY MODELING IN OREGON - 1990s

- Modeling done for air quality conformity, major project development
- Metro, ODOT, LCOG did transportation modeling
- RVCOG and MWVCOG relied on ODOT
- Modeling only in MPOs and Bend
- Even then, Metro was a leader



1990s MANDATES

- Clean Air Act Amendments (CAAA)
- Transportation Efficiency Act (TEA 21)
- Oregon Transportation Planning Rule (TPR)
- Oregon Growth Management and Quality Communities Policies

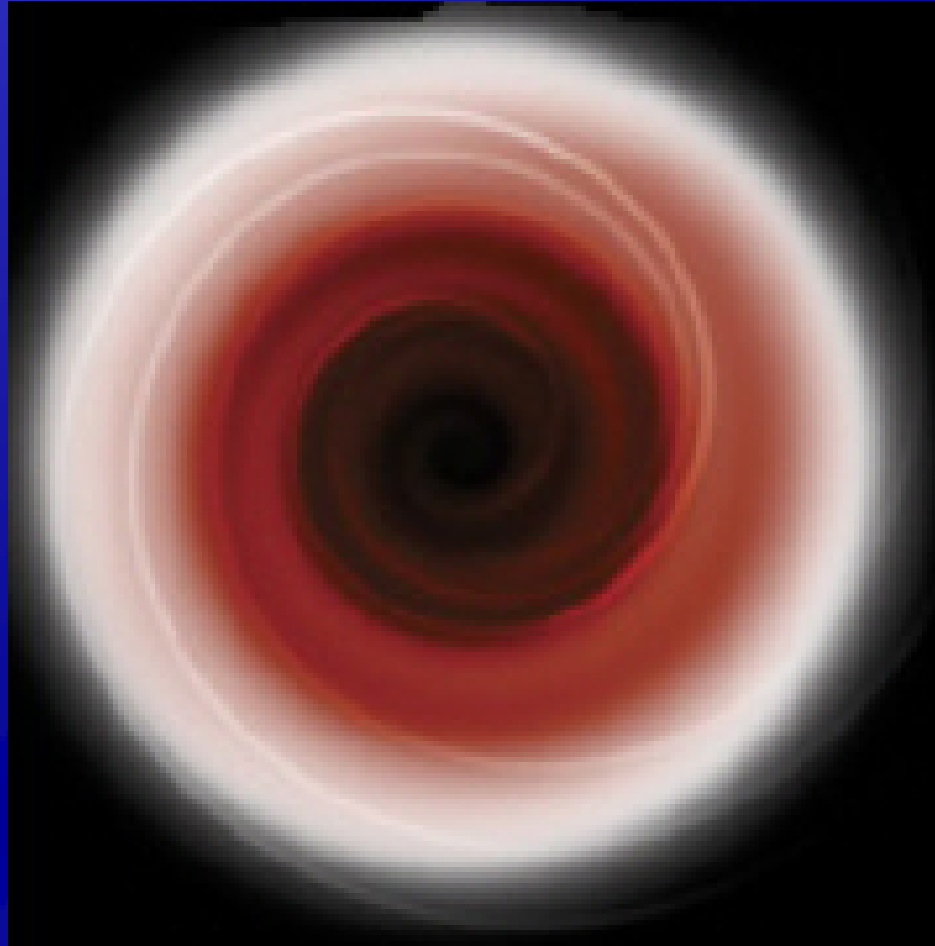


WHY DID OREGON START OMIP?

- Modeling methods were outdated
- Content with “all or nothing” ADT model
- Drifting away from acceptable modeling practices
- Could not meet agency requirements
- Could not provide vital information in a timely manner
- ODOT losing ability to effectively participate in decision-making in Oregon



Oregon had entered the



of transportation modeling



FIRST STEP

- Establish best practice modeling guidelines
- Perfect transport models before moving to integrated models
- California only state with documented minimum tolerance levels
- Parsons Brinckerhoff promised to do even better for ODOT



CHANGE IN PHILOSOPHY

The type of analysis required for an area dictates the level of model sophistication, not population.

Importance: Set precedence for modeling for Transportation System Plans in small jurisdictions.



NEXT STEP

- Communication among agencies is the norm, not the exception
- MPOs, ODOT, DEQ, DLCD discussing best practice guidelines
- Started the Oregon Modeling Steering Committee (policy) and Users Group (technical)
- Agreement that this would be a voluntary program



GROWING PAINS

- Regulatory agencies wanted mandatory guidelines under state air quality conformity rule
- ODOT planners wanted required consultation for Transport Improvement Plan development
- Small MPOs wanted to talk technical not big picture
- Oregon GIS program wanted total control



AND MORE GROWING PAINS

Built a best practice model in Salem/Keizer

- ODOT and MWVCOG staff do work with consultant guidance
- Document process
- Prepare model development procedures manual

Communications broke down

Ran out of time and money

Competing expectations

Everyone unhappy



LESSONS LEARNED

- Local groups work well together
- Technical folks quickly build good working relationships
- Consultants can get in the way
- Federal TMIP affirmed Oregon vision



AND NOW THE REAL CHALLENGE

- Management understanding and buy-in
- Funding



FIRST GENERATION MODEL

- Mid-1990s
- Developed 5 tracks - resources, outreach, development, implementation, data
- Brought all stakeholders together for 3-day workshop
- Conducted policy-maker interviews
- Integrated model highest priority
- Prepared Request for Proposal/hired consultant



STEERING COMMITTEES

- 1995 Oregon Modeling Steering Committee (OMSC) formalized
- 1996 Transportation-Land Use Model Integration Program (TLUMIP) Peer Review Panel



DATA & EDUCATION BLITZ

Data

- Collected data from all over Oregon
- Convened Delphi panel to fill voids

Training

- Huge training budget
- Trained the “experts” and everyone else



WHY IS OREGON CONTINUING OMIP?

- Interactions between the state's economy, land use and transportation are complex and interrelated
- Relationships of different modes affect mobility needs
- Decision-makers need estimates of results to make good policy choices
- Policy documents need tools to measure success

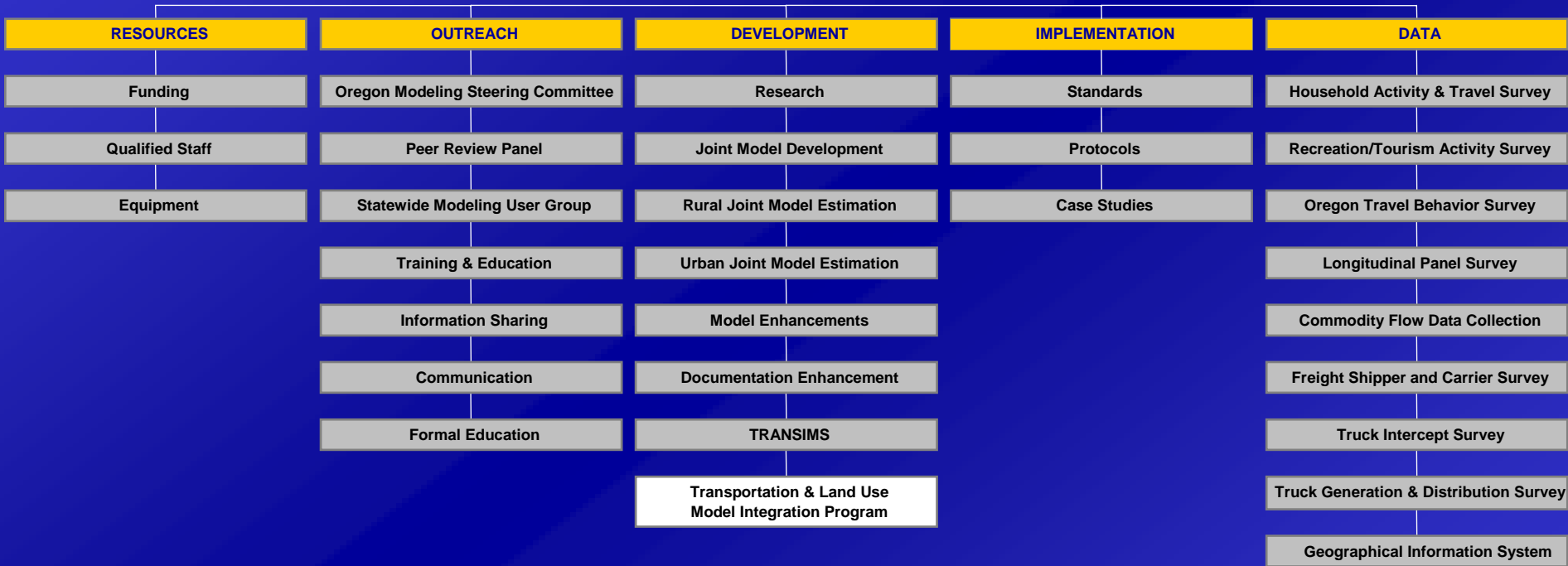


**WHAT DOES OMIP LOOK
LIKE TODAY?**

HOW DO OMIP AND TLUMIP RELATE?



OMIP STRATEGIC ELEMENTS



RESOURCES

Funding

Qualified Staff

Equipment



OUTREACH

Oregon Modeling Steering Committee

Peer Review Panel

Statewide Modeling User Group

Training & Education

Information Sharing

Communication

Formal Education



DEVELOPMENT

Research

Integrated Model Development

Urban Joint Model Estimation

Rural Joint Model Estimation

Model Enhancements

Documentation Enhancement

TRANSIMS

Transportation/Land Use Model Integration Program



IMPLEMENTATION

Standards

Protocols

Case Studies



DATA

Household Activity and Travel Survey

Recreation/Tourism Activity Survey

Oregon Travel Behavior Survey

Longitudinal Panel Survey

Commodity Flow Data Collection

Freight Shipper and Carrier Survey

Truck Intercept Survey

Truck Generation and Distribution Survey

Geographical Information System

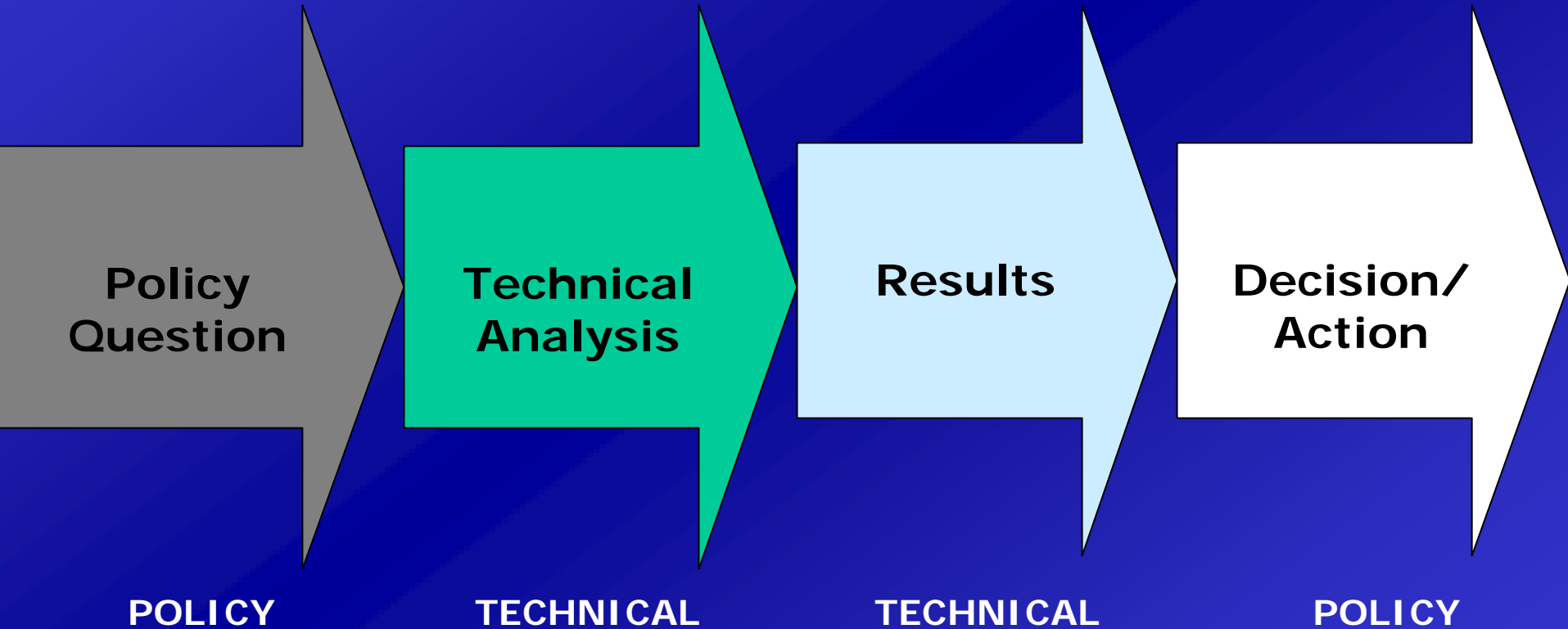


THE BOTTOM LINE IS:

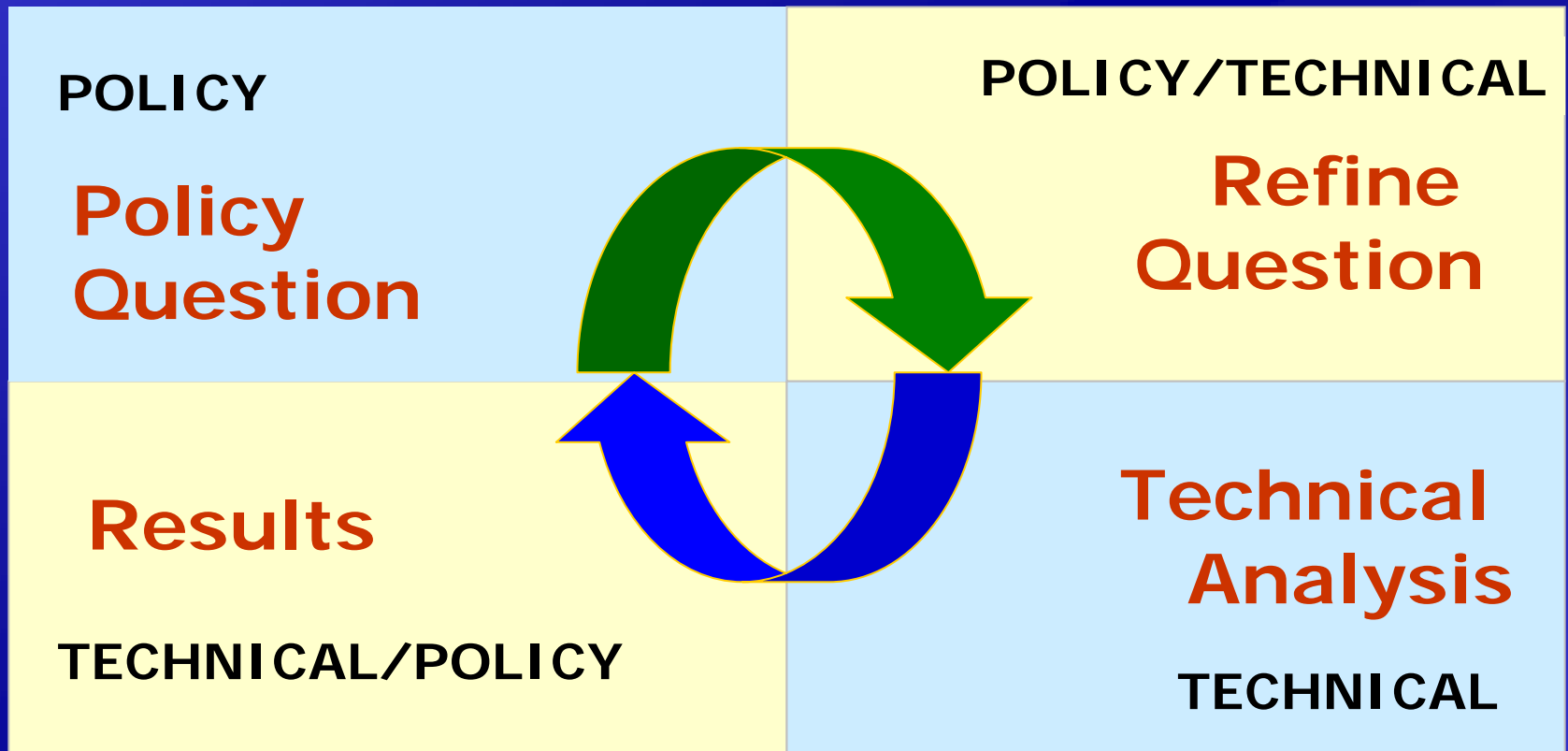
*We think about things in a
different way.*



LINEAR DECISION- MAKING PROCESS

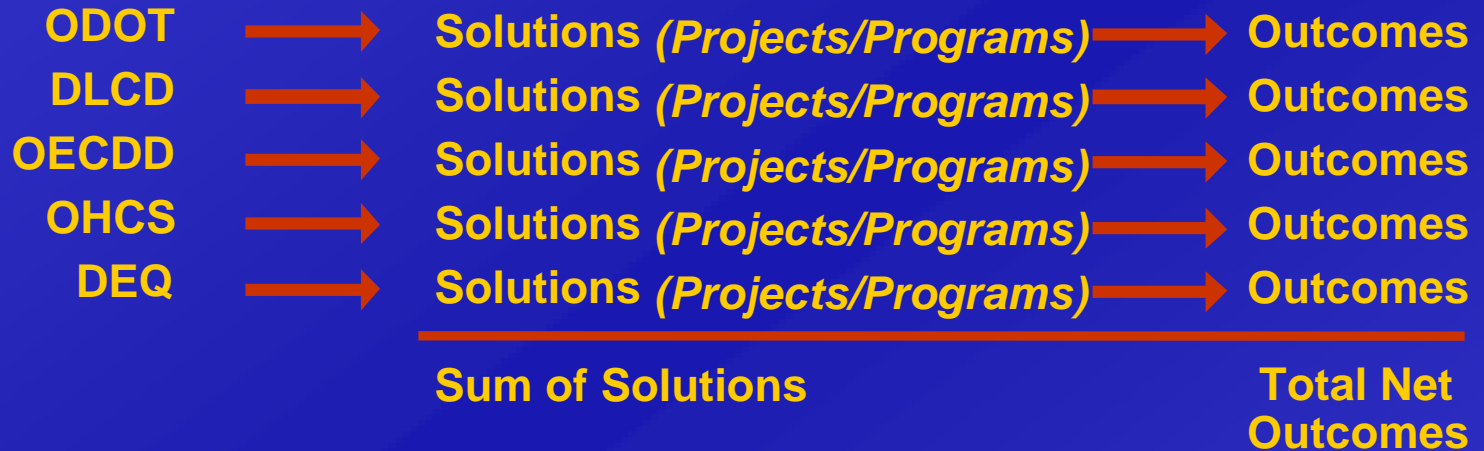


INTERACTIVE & ITERATIVE DECISION-MAKING PROCESS

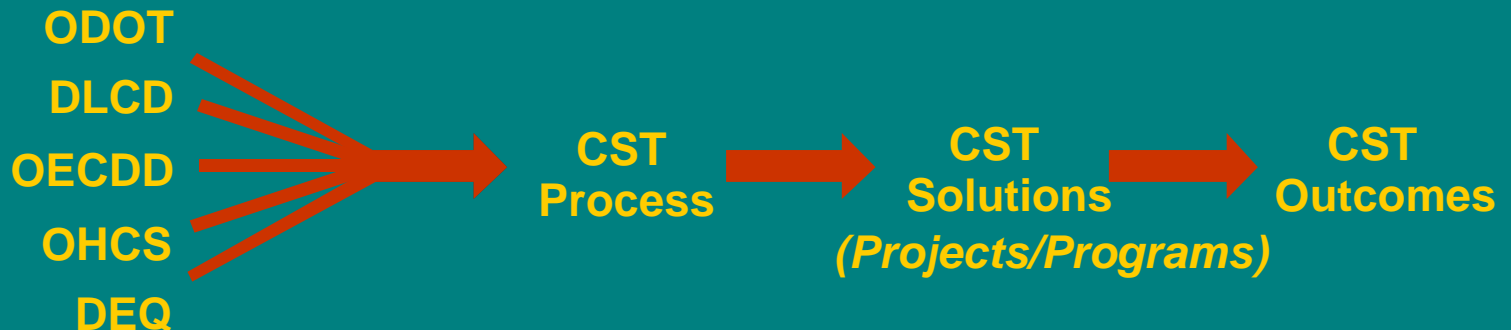


CST AND TRADITIONAL APPROACHES TO COMMUNITY DEVELOPMENT

Traditional Approach

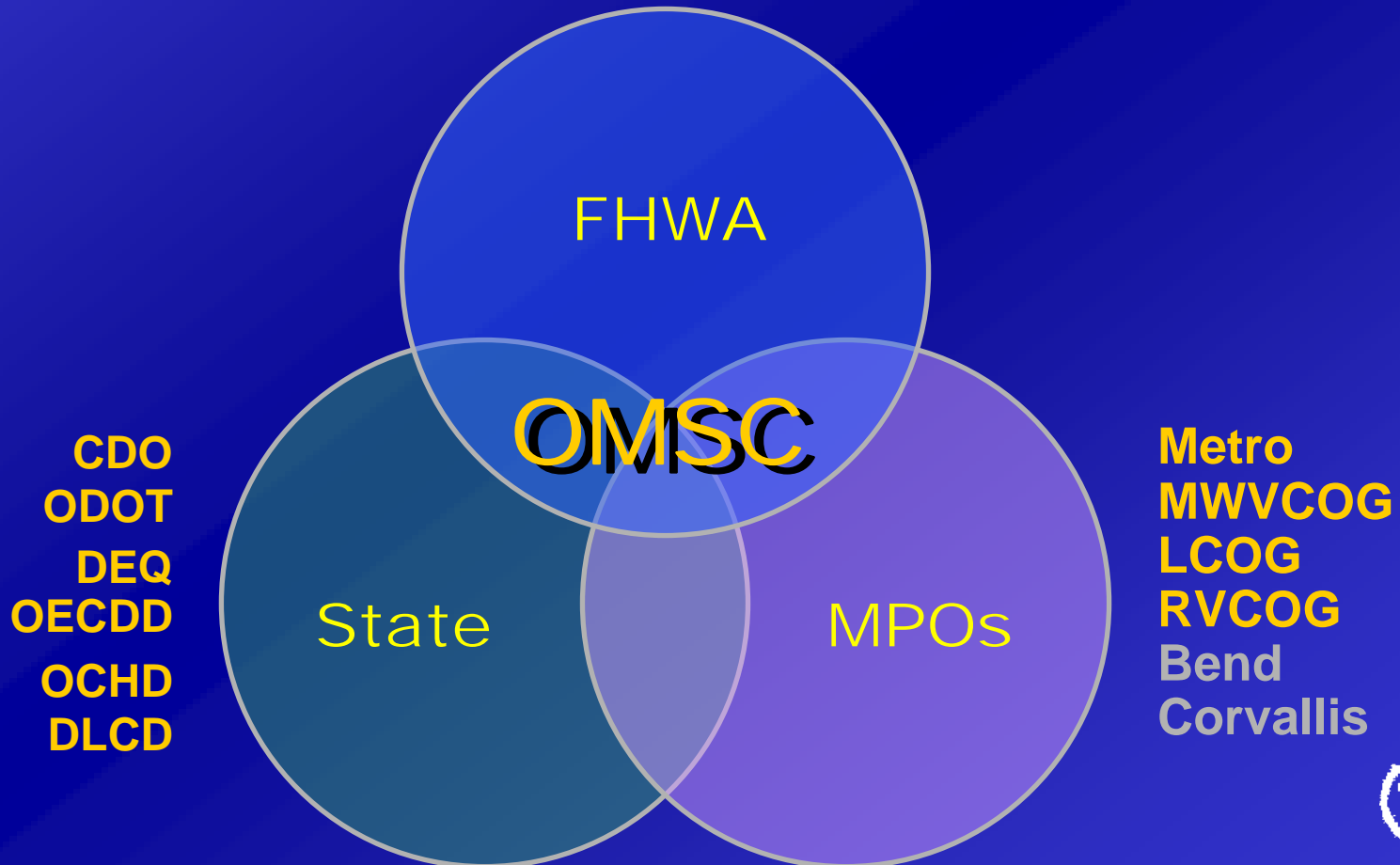


Community Solutions Team Approach



OREGON MODELING STEERING COMMITTEE

Partnership among federal, state and local agencies and jurisdictions



HOW ARE WE USING OUR MODELS?



BIG PICTURE BRAINSTORMING ON POSSIBLE FUTURES

Willamette Valley Livability Forum Alternative Transportation Futures



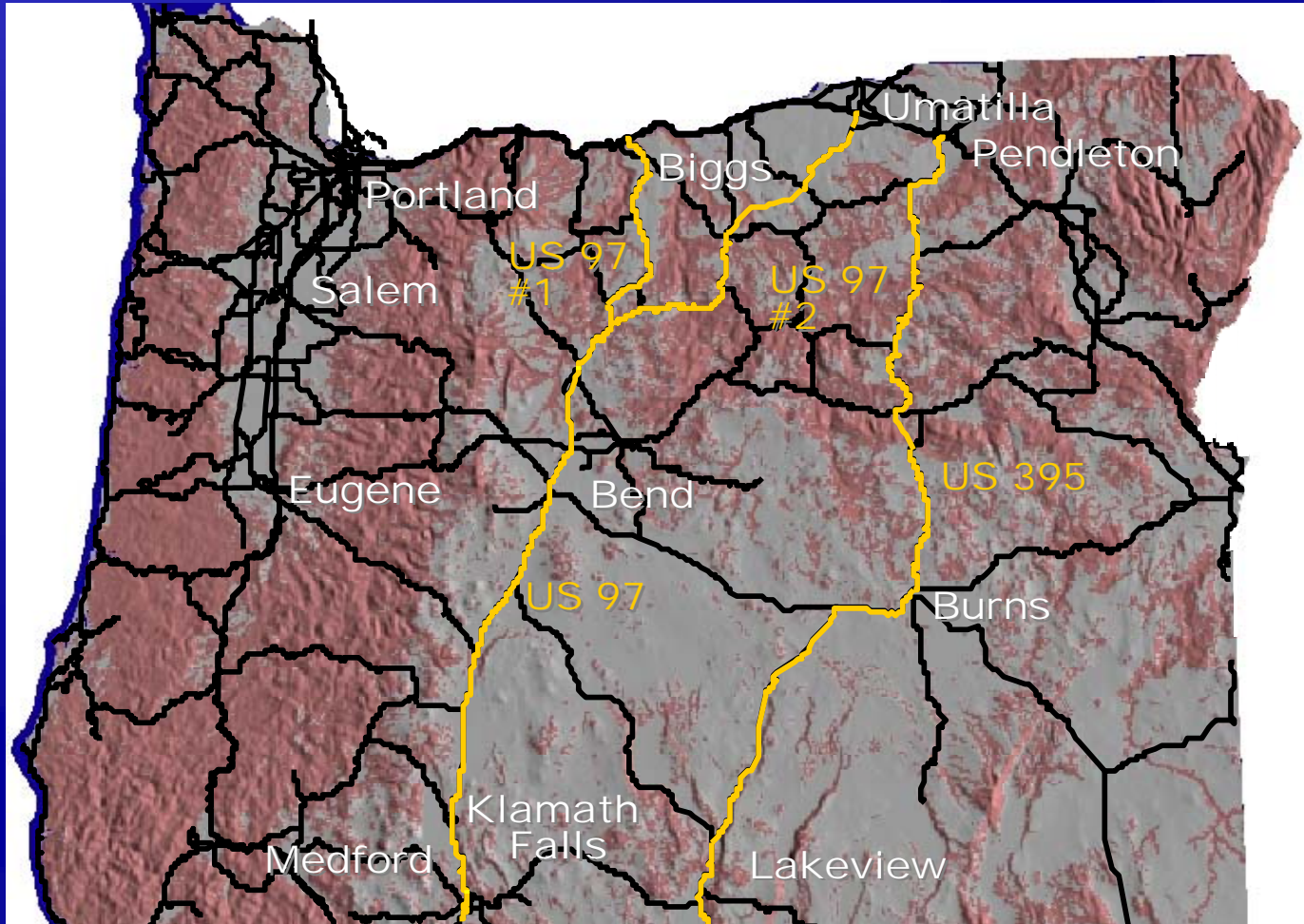
Purpose

**A long-range,
comprehensive, regional
look at the future of
land use and
transportation in the
Willamette Valley.**



INFRASTRUCTURE INVESTMENT DECISIONS

House Bill 3090 Alternatives



INDUCED GROWTH ANALYSES

Newberg-Dundee Bypass Environmental Impact Statement

Statewide model used to look at:

- # of households/jobs in the Hwy. 99W/18 corridor in Yamhill County
- Passenger and truck trips to/from the corridor
- Passenger and truck *miles* traveled
- Passenger and truck *hours* traveled



INFRASTRUCTURE PRIORITIZATION

Oregon Bridge Deficiency Analysis

Identify economic, land use and transport impacts:

- Load-limiting bridges
 - costs to trucking industry
 - costs to consumers
 - land use changes
- Diversions because of key bridge closures
- Prioritize future bridge investments



JOINT MODELING PROJECTS

Objective:

Develop *best* models using data from all four Oregon MPO areas and 8-counties.

- Urban Joint Model Estimation
- Rural Joint Model Estimation



HOW DOES THIS PROGRAM HELP ODOT?

- Help Oregon meet federal and state mandates
- Make better choices for transportation investments
- Tools to address Governor's sustainability and quality communities agenda
- Assist CST in multi-agency decision-making
 - Support local priorities
 - Holistic and integrated decisions
- Foster collaboration and maximize resources (staff, funds)



NEXT STEPS

- *Resources*

- Streamlined cooperative modeling program
- Reinforce multi-agency and jurisdictional cooperation

- *Outreach*

- Extensive outreach to inform and engage users
 - Inside and outside of Oregon
 - Inside and outside of ODOT
- 3rd Integrated Modeling Symposium in July
- North American and European consortium



NEXT STEPS

- *Development*
 - Complete next generation of statewide model
 - Build interactive link between statewide model and local urban and rural models
 - Expand interactive capabilities of urban models
 - Incorporate environmental considerations
- *Implementation*
 - High profile modeling projects
 - Day-to-day support of cities, counties, state agencies
- *Data* - Longitudinal panel survey



NEXT CHALLENGES

- Institutionalize the program - within ODOT, universities, schools
- Build European partnerships - needs to be broader than the U.S. for the next efforts
- Move beyond research - JUST DO IT!



THE MEASURE OF SUCCESS

*“Become the way Oregon
does business”*

