

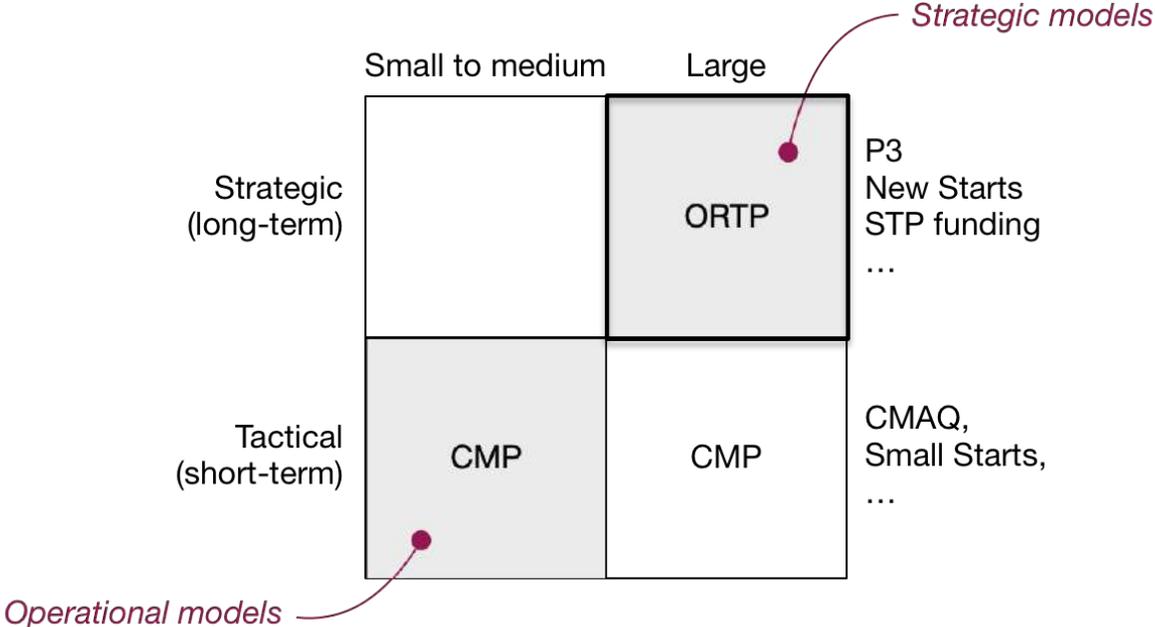


OahuMPO Travel Forecasting Policy Board Briefing

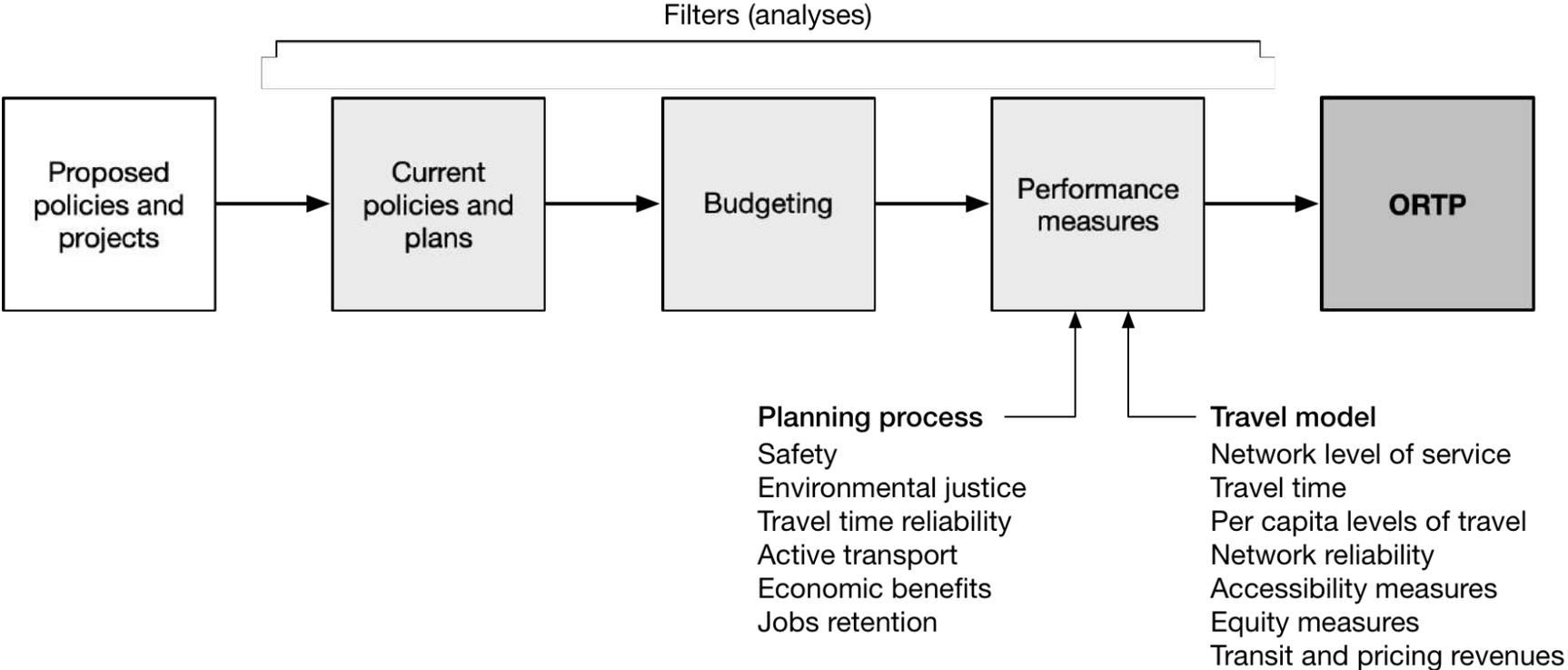
Rick.Donnelly@wsp.com | 29-Apr-2019

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Context



Models in the planning process



Then and now

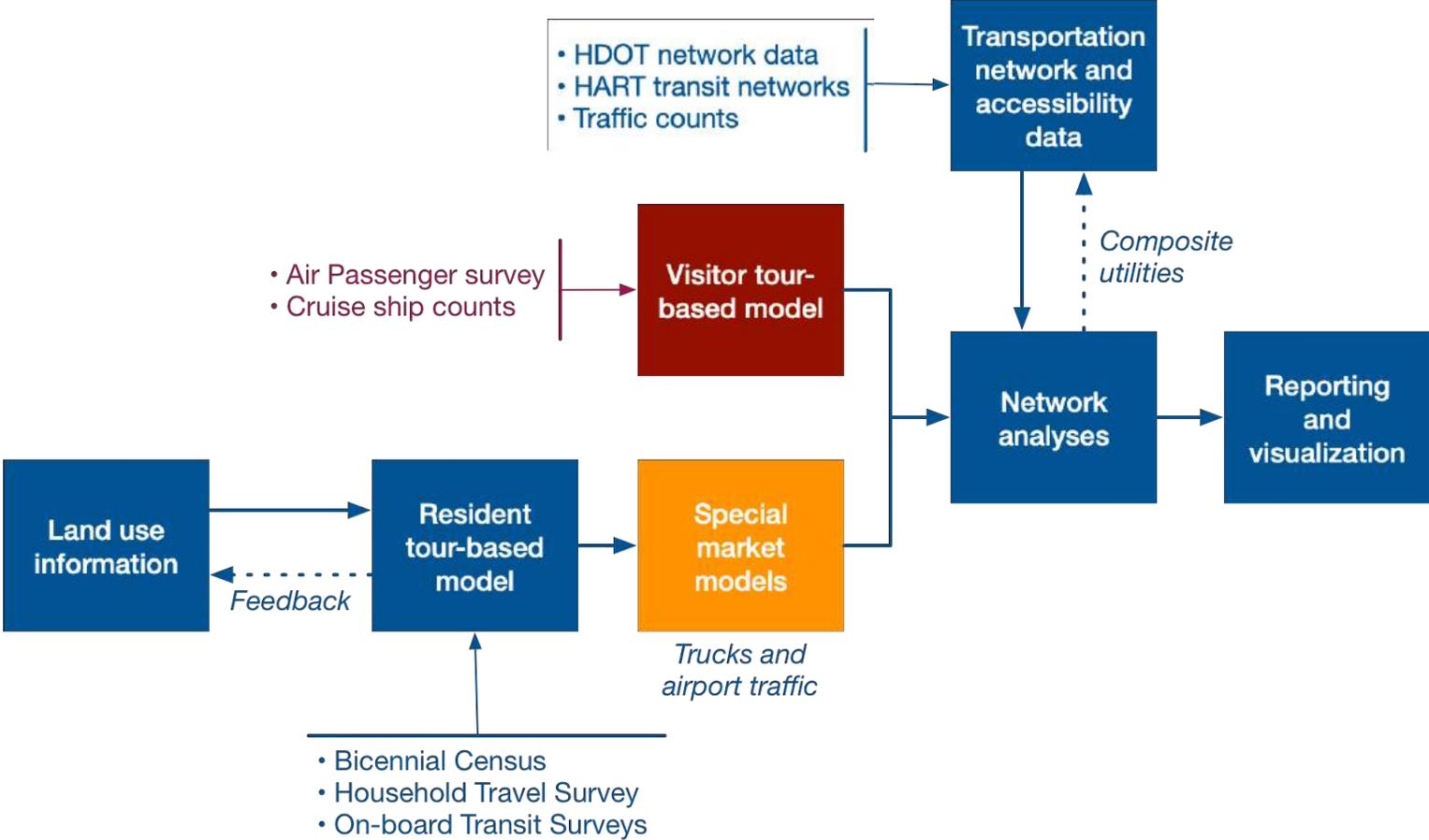
Last century

Transit demand and revenue
Major highway investments
Project prioritization

This century

All of last century, plus:
Transit demand and revenue
Major highway investments
Project prioritization
Community connectivity
Links to economic and trade models
Commercial vehicle travel and impacts
Links to emissions models
Energy impacts
Travel demand management
Safety impacts
Modal redundancy studies
Network resilience measures
Economic impact analyses
Congestion duration
Pricing studies
Managed lane studies
Cost-benefit analyses
Financial and social welfare measures
Equity analyses
Active transport analyses
Health impacts
Fuel price impact analyses
Bottleneck analyses
Autonomous vehicles
Mobility as a service

OahuMPO V6 model



Stakeholder feedback

Model functionality

1. Move to activity-based formulation
2. Include all road modes
3. Rebuild network
4. Model sensitivity
5. Park-n-ride capacity
6. Tolling/pricing
7. Improved transit
8. Better representation of active response
9. Shared and autonomous vehicles
10. Mobility as a service
11. Consensus based
12. Tighter Real-time interface

Model uses

13. Evaluate development proposals
14. Transit scenarios
15. Transit crowding analyses

16. Operational improvements

17. Evacuation planning
 18. Critical network link analyses
 19. Small network/project-level analyses
 20. Analyses with fixed OD matrices
 21. Integration with transit fare model(s)
- ## Usability
22. Compiled source code is hard to understand
 23. Source code access
 24. Simplify the code base
 25. Single language for model scripting
 26. Committee to guide key model assumptions
 27. Large database accessibility (surveys, outputs, ...)
 28. "Model catalogue" (prior runs)

Highest scoring:

- Evaluate development proposals
- Transit scenarios
- Project-level analyses
- Quick analysis with origin-destination data

Most votes:

- Large database accessibility
- Source code access
- New networks from scratch

Note: Red entries represent highest-scoring top two uses, while blue entries were highest frequency individual issues

Priorities

	Small effort	Large effort
Current (FY19)	<ol style="list-style-type: none">1. Program management2. General support3. CMP update5. AirSage data acquisition	<ol style="list-style-type: none">4. Socioeconomic data update
Programmed (FY20)	<ol style="list-style-type: none">6. CityCast implementation	<ol style="list-style-type: none">8. Transit model evaluation9. TransCAD v8 platform11. TransModeler proof of concept