

Connected/Automated Vehicles and Travel Models

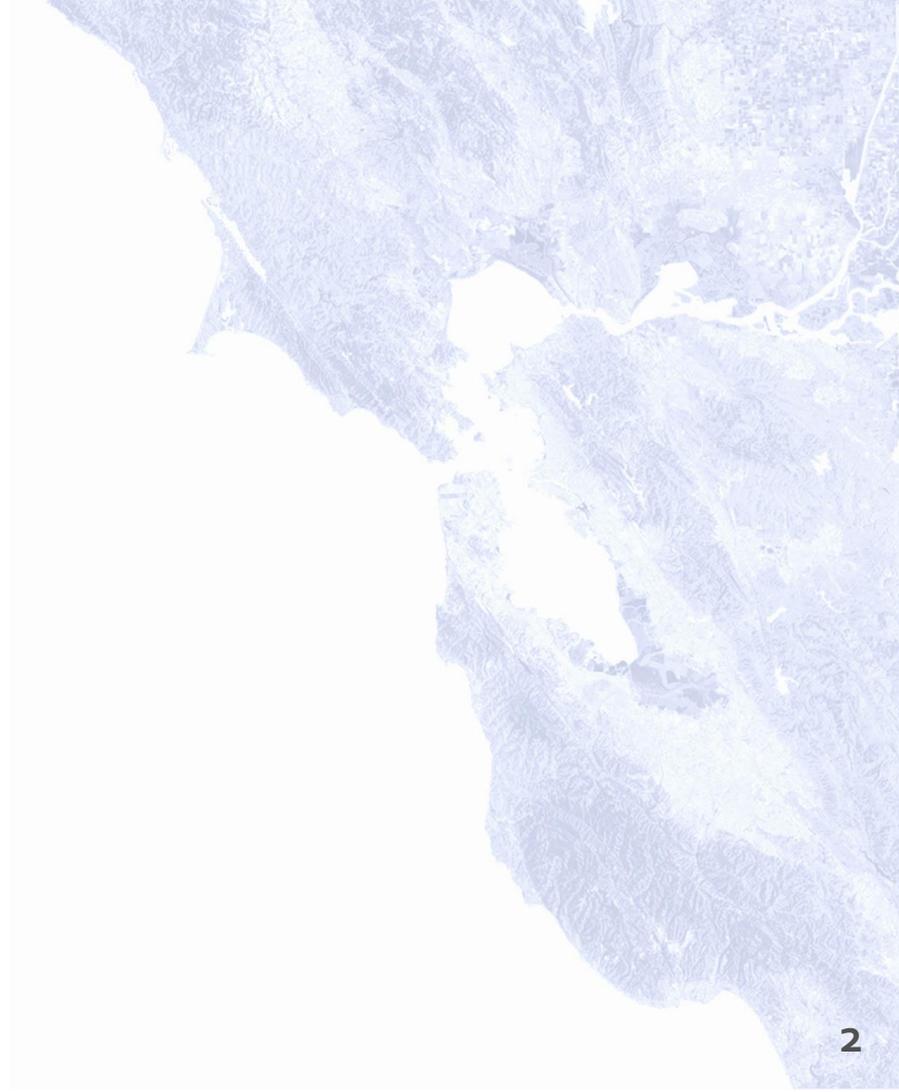
Presentation to Caltrans Planning Horizons

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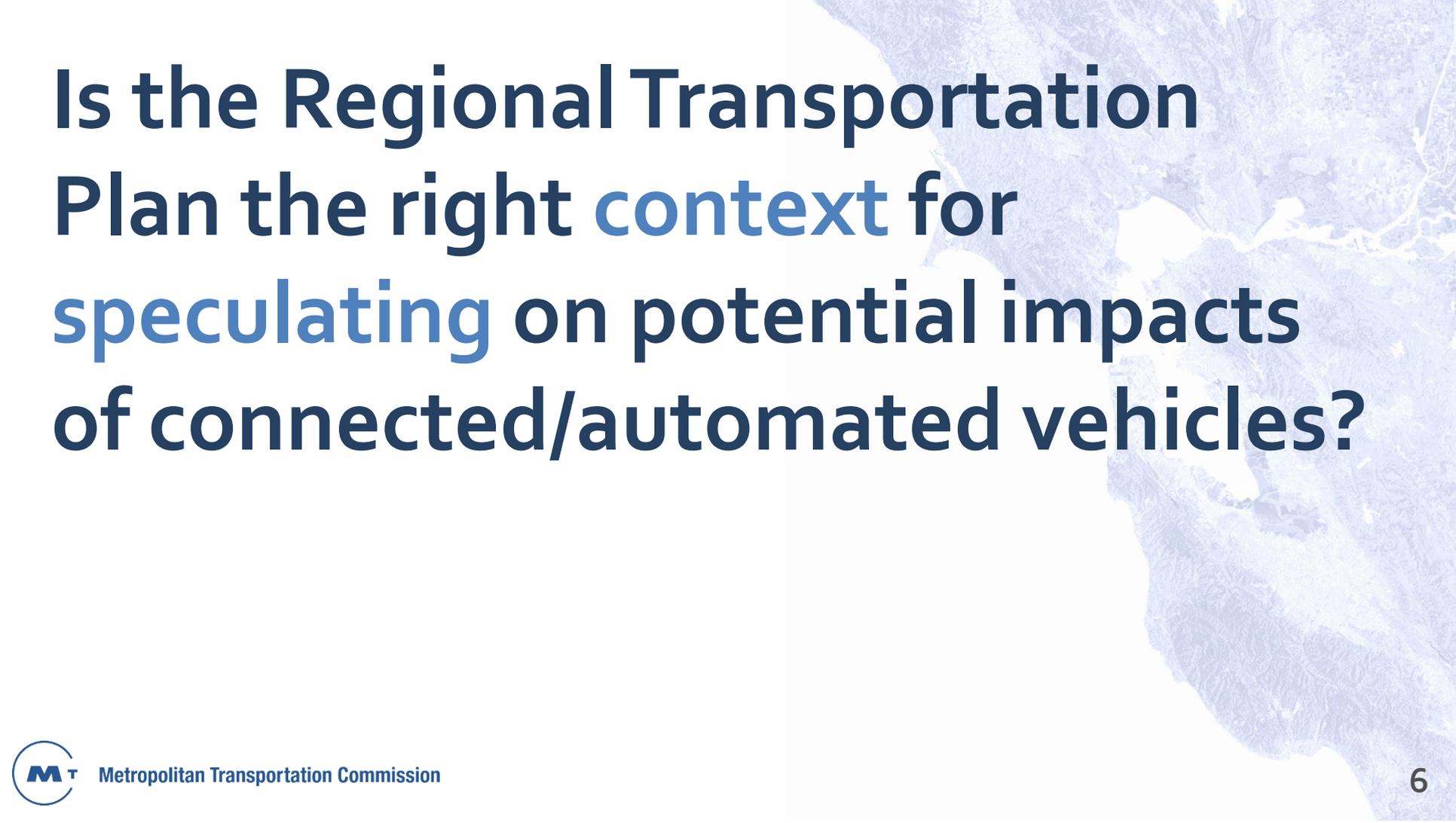


**Models are low value.
Forecasts are high value.**



Forecasts have context.

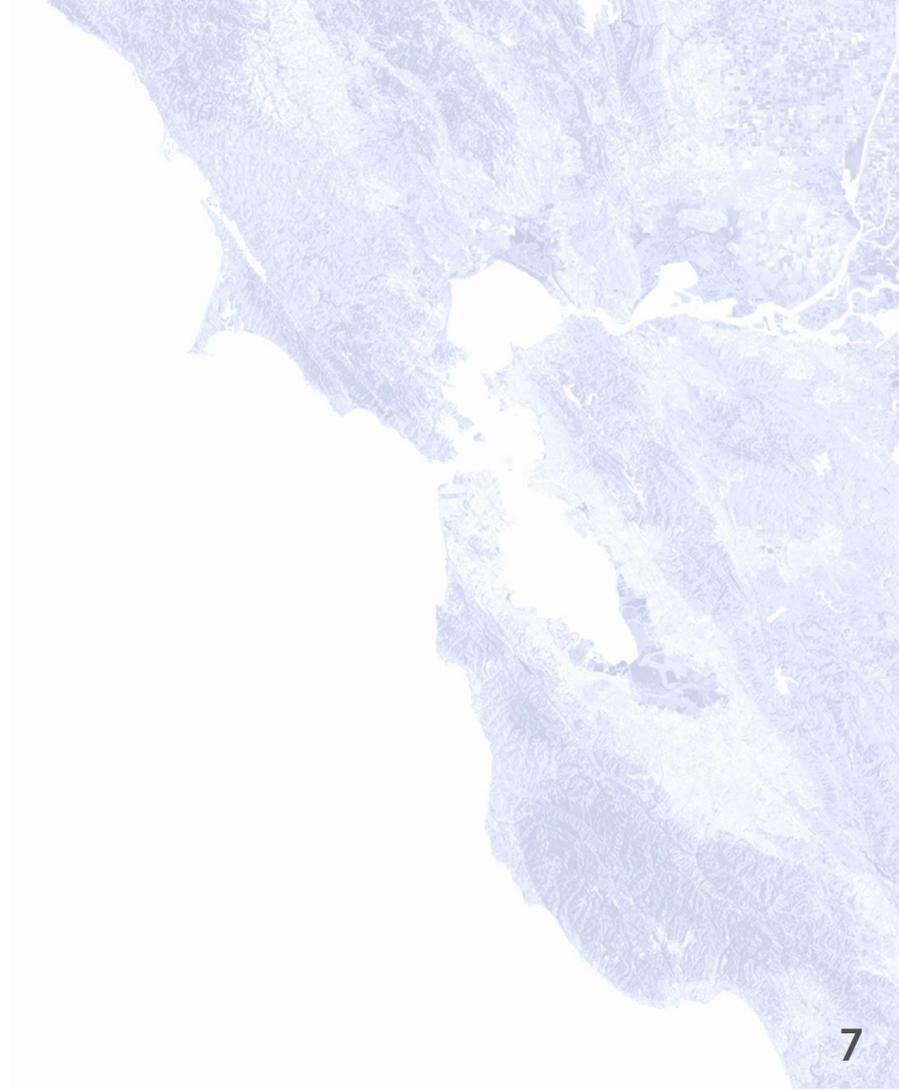




**Is the Regional Transportation
Plan the right context for
speculating on potential impacts
of connected/automated vehicles?**



2



Many of the autonomous vehicle analyses to date (including MTC's) are **myopic**.



Automated buses

On-demand bus lanes

Ubiquitous “vision zero”

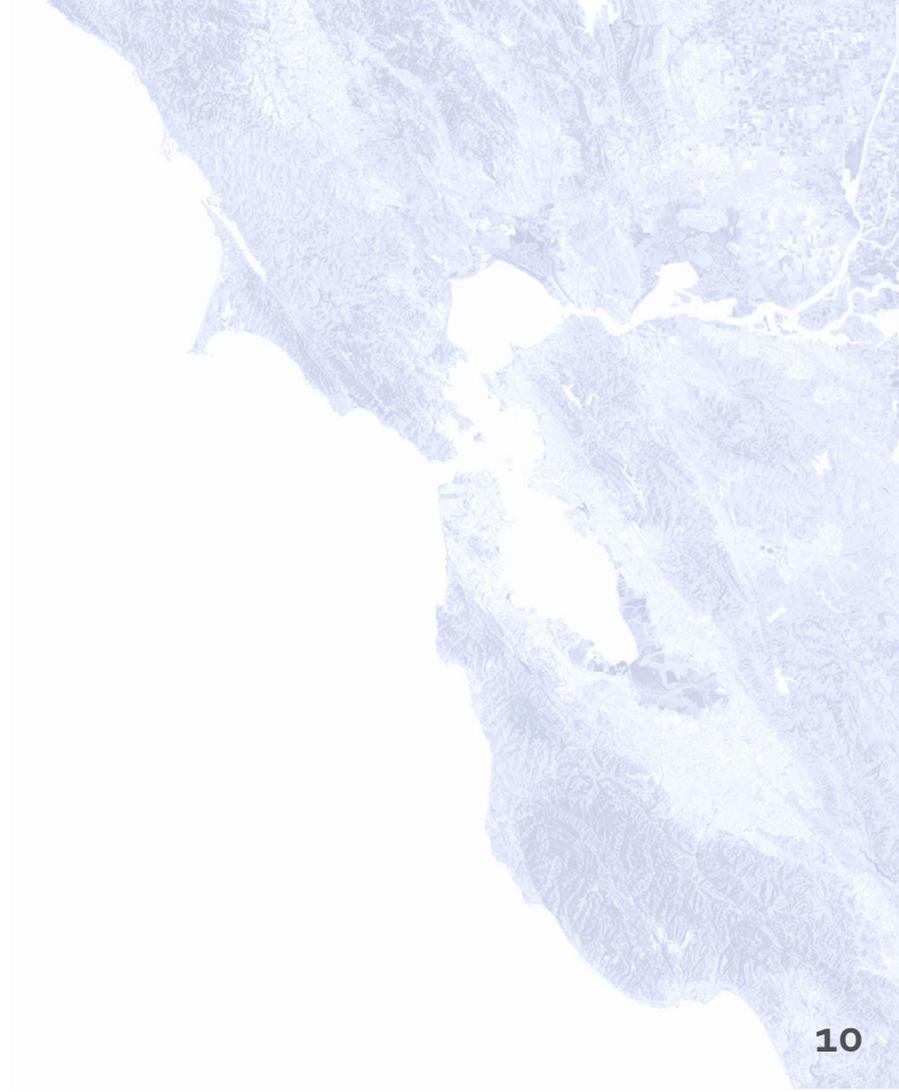
Dramatic reductions in urban crime

Dramatic reductions in urban nuisances

Housing policy



3



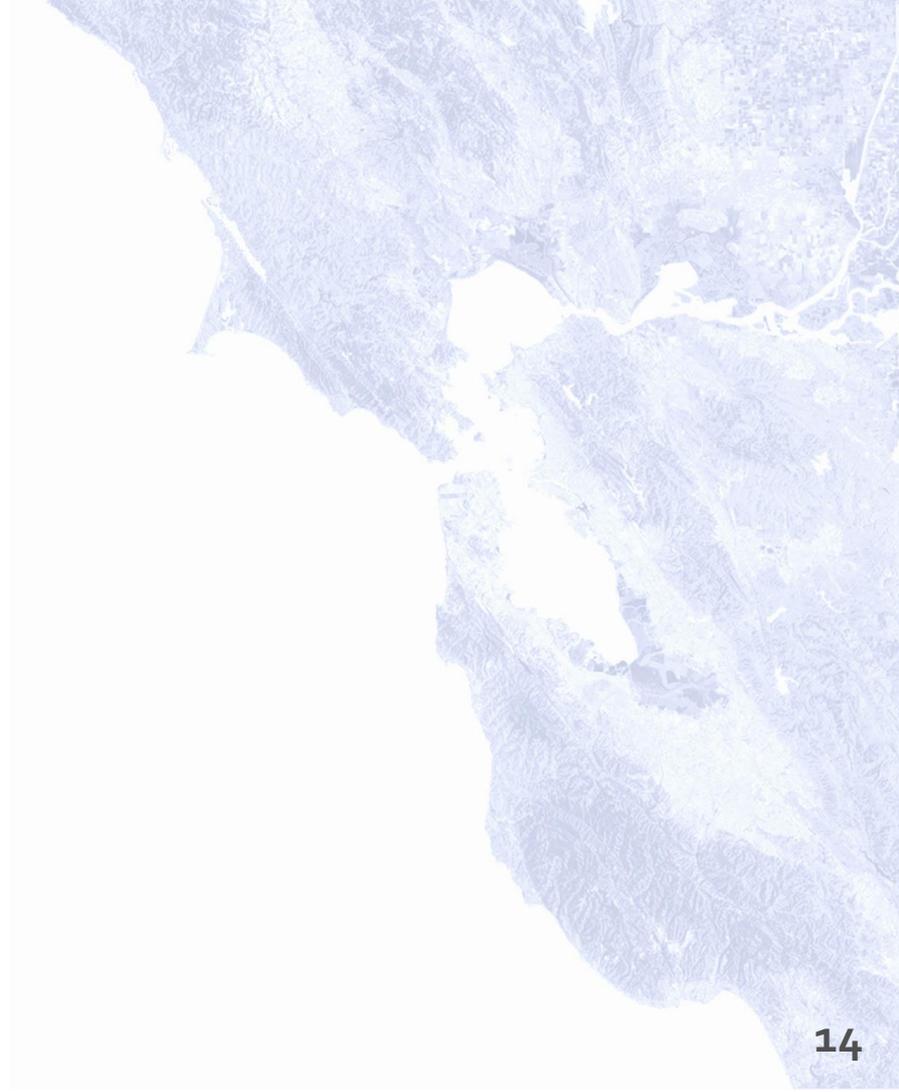
Many of the autonomous vehicle analyses to date (including MTC's) *seem* to approach the question as: what may happen if the government does not meaningfully intervene?

This is an odd frame given (a) governments are *already making* important policy decisions (e.g., must the operator have a driver's license) and (b) the potentially *dramatic* (revolutionary?) change automated vehicles may bring.

What's the *best way* for governments to intervene to achieve established policy goals?



4

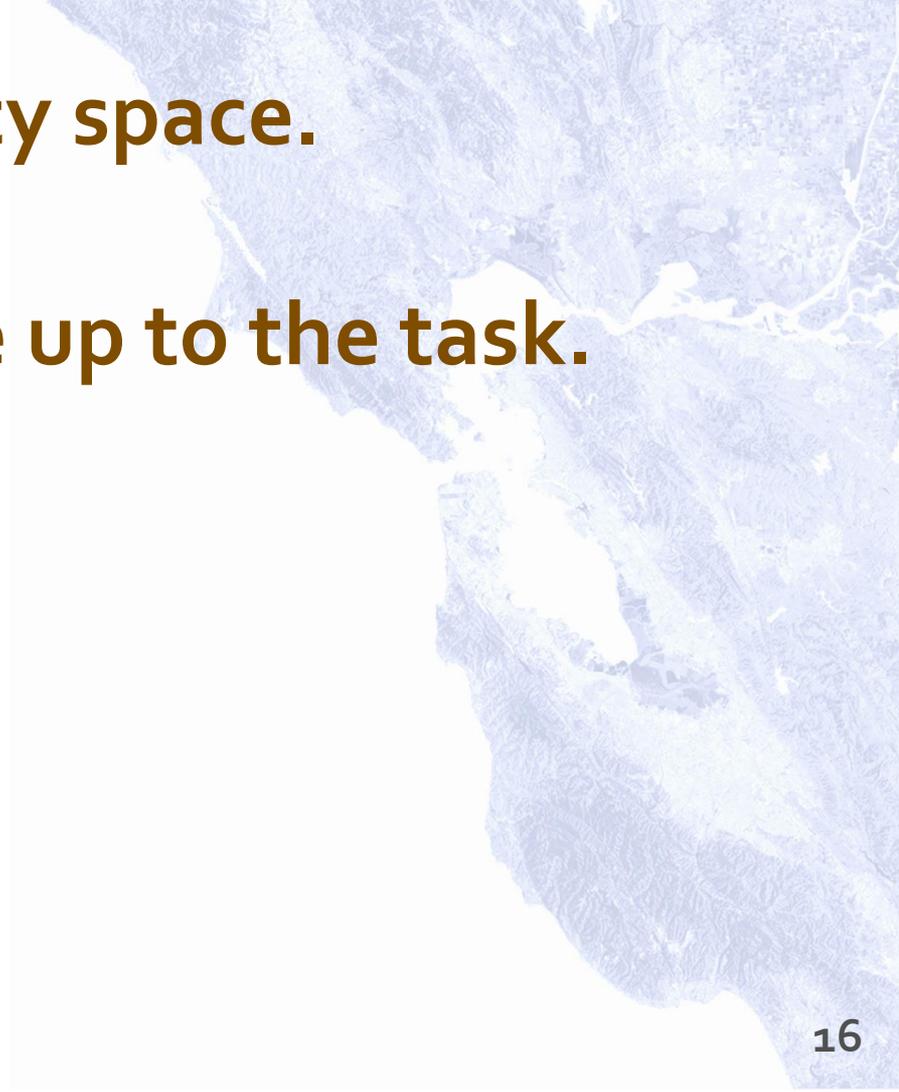


What do we want to happen?



Then ... explore the policy space.

Then ... ask if models are up to the task.



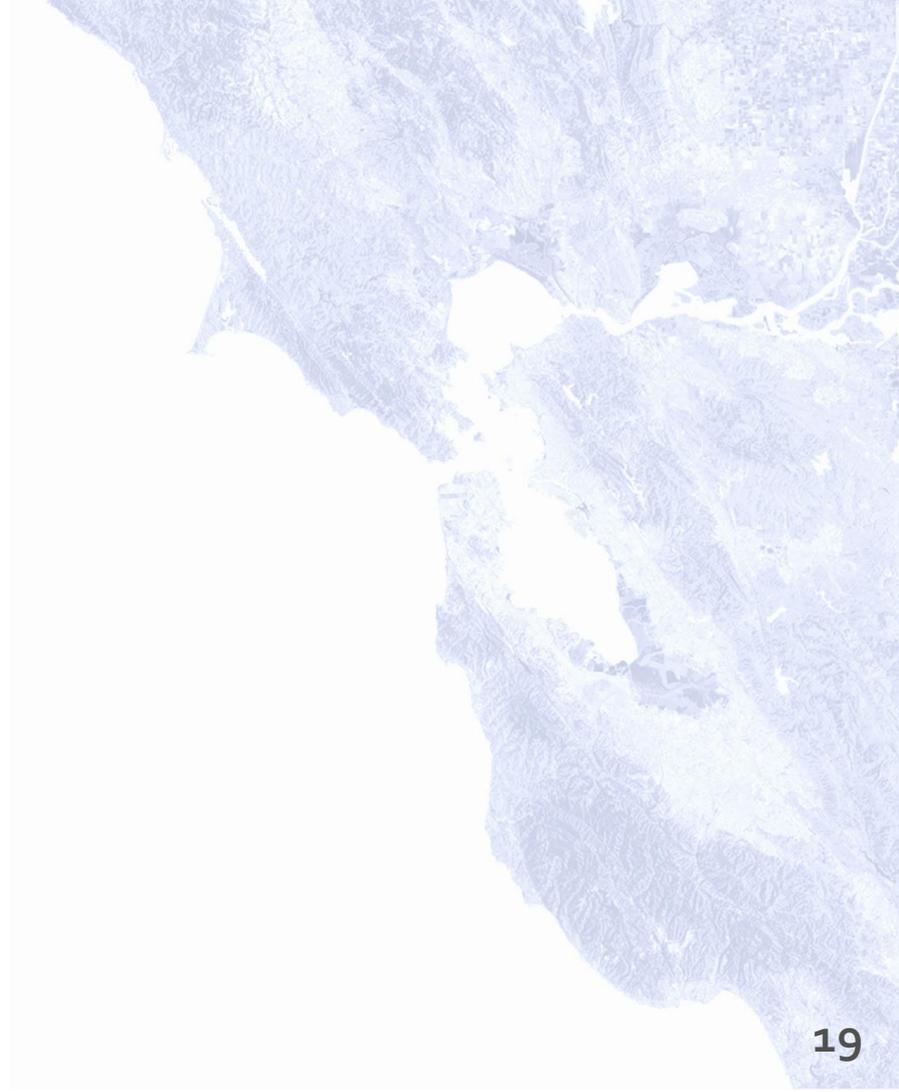
Emission-minimizing vehicle behavior?



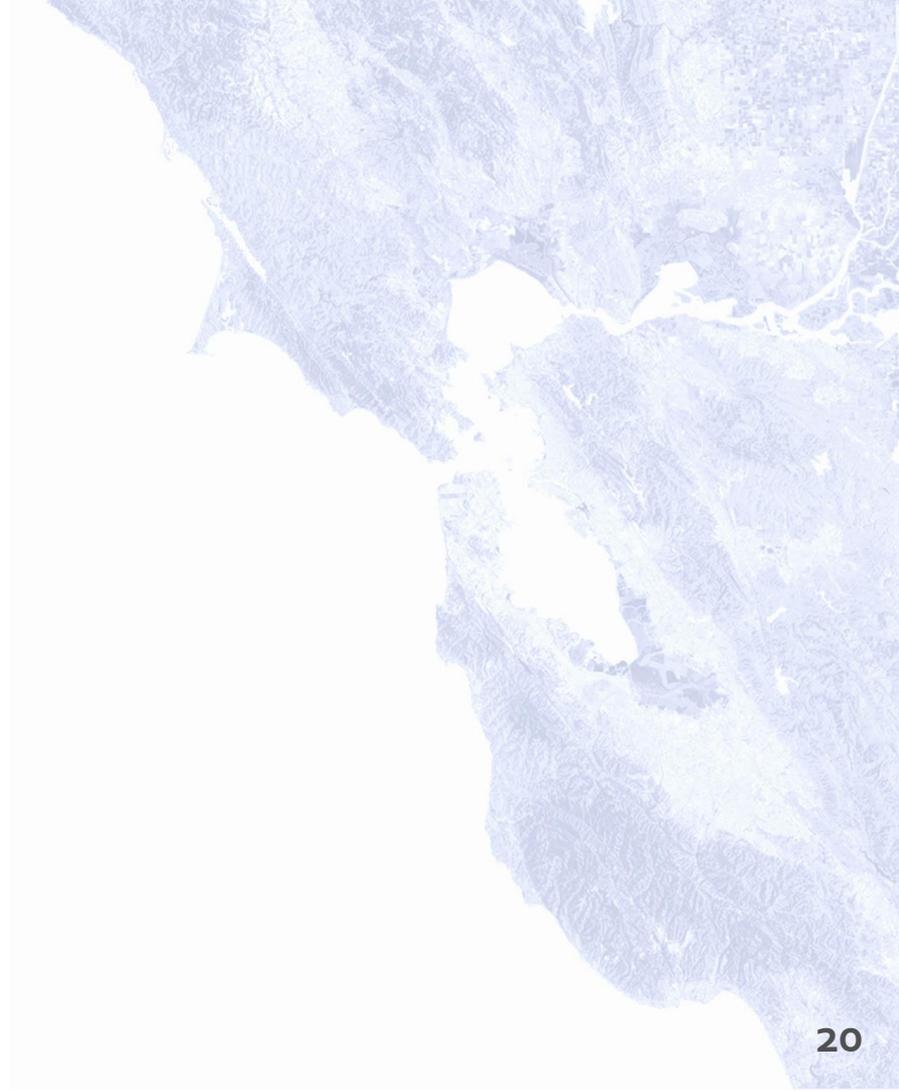
Ubiquitous vision zero?



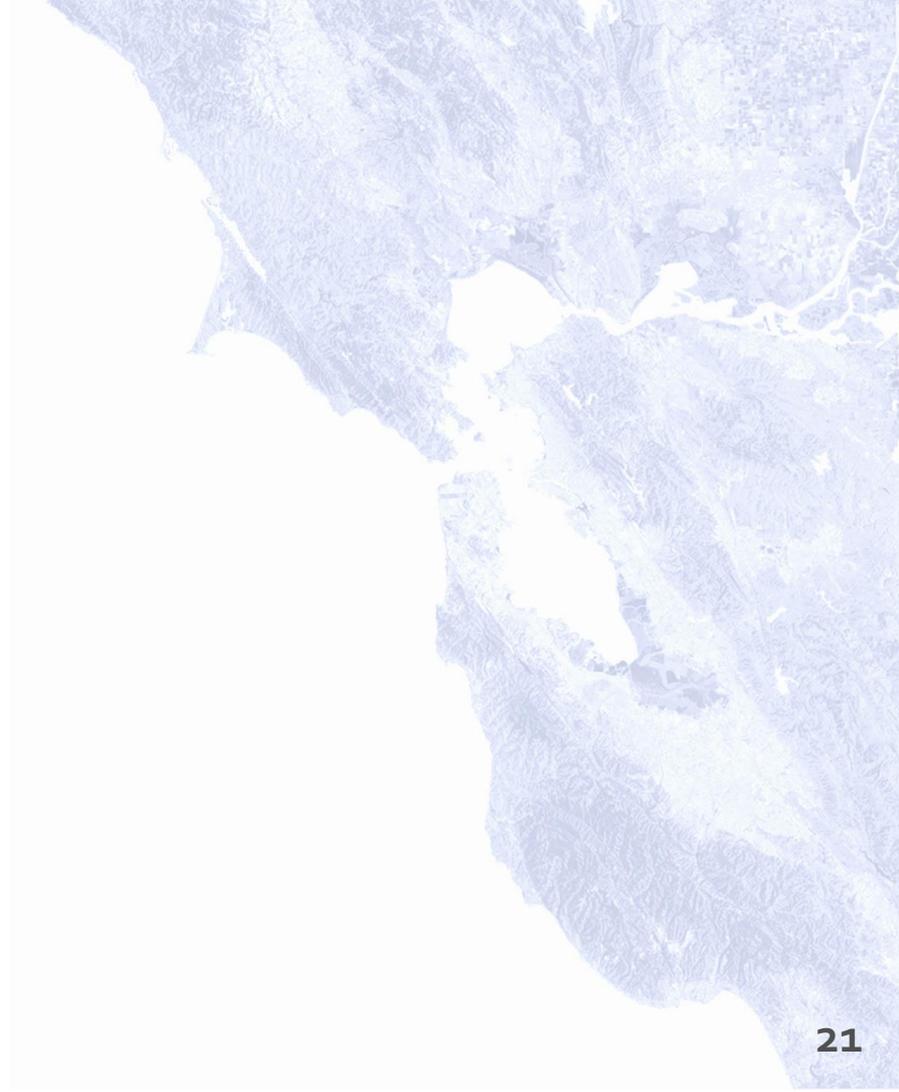
Shared vehicle utopia?



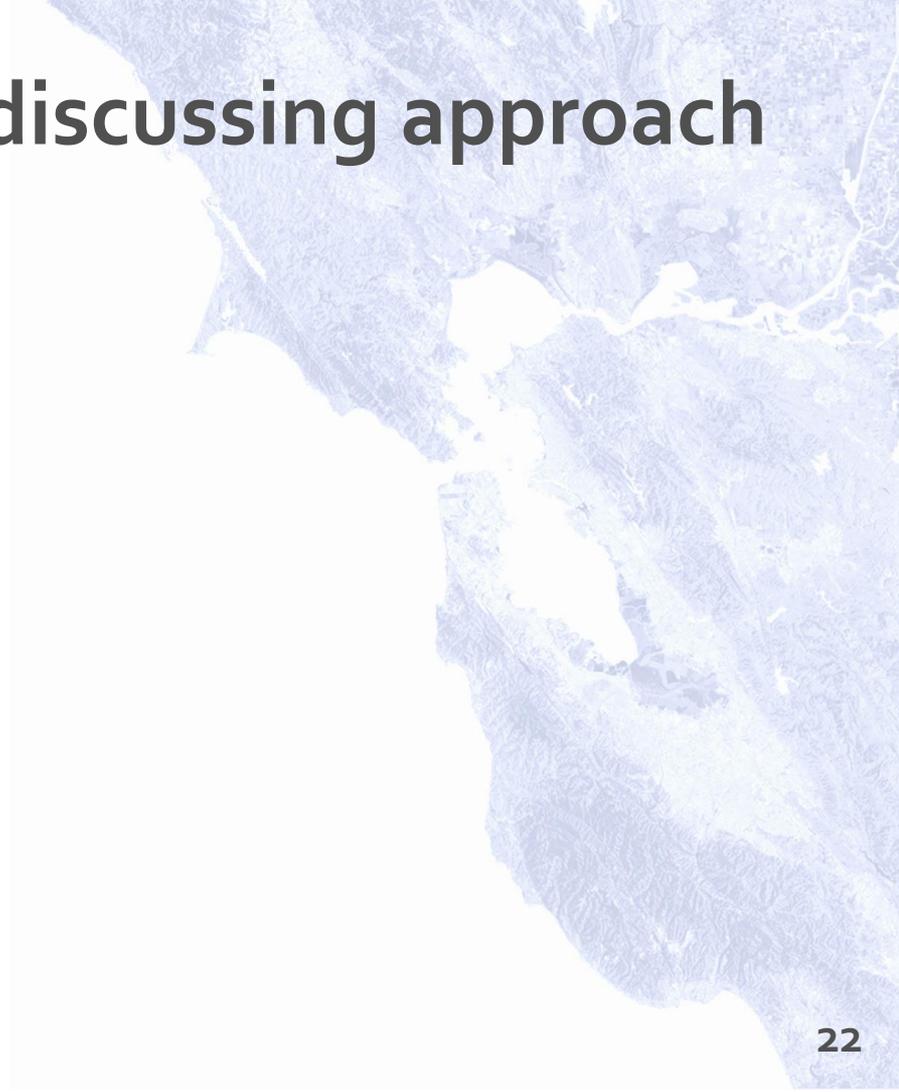
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Near-term MTC Actions



RTP is due in 2017 – still discussing approach to representing CAVs



Initial scenario work focused on interventions into vehicle behavior, e.g. emission-minimizing acceleration and maximum speed.



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