

Planning for Sustainable Transport: Financing Aspects

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Financing a sustainable transport system

- A three-pronged set of challenges and opportunities are currently underway:
 - ▣ Financial crisis – traditional tax sources weakening
 - ▣ Institutional and policy changes – transport investments increasingly linked to land use plans (i.e. California's SB375), increased need for regional coordination
 - ▣ Technological innovations – information and communication technologies
- Trend: Increased reliance on the private sector for capital projects, and on user fees for operating costs

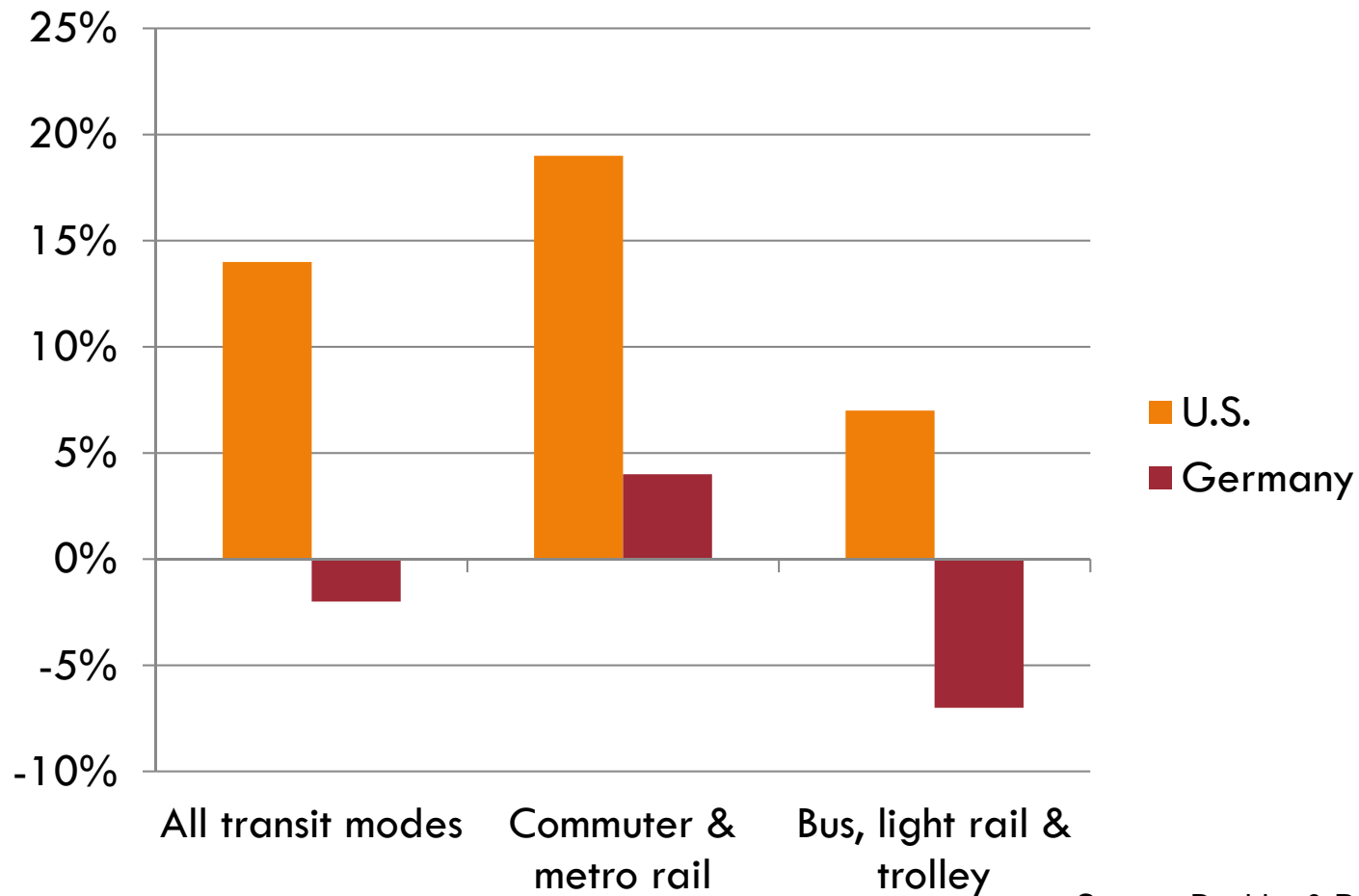
Fuel taxes

- In the US, federal fuel tax was last increased in 1993, and not indexed to inflation
 - ▣ Federal gas tax = \$.18 per gallon / \$.05 per liter
 - ▣ Plus state taxes = \$.50 per gallon / \$.13 per liter
 - ▣ Revenue ~\$25 billion per year, 20% for transit
- In Germany, federal gas tax has been raised eight times since 1991,
 - ▣ Federal gas tax = €1.78 per gallon / €.47 per liter
 - ▣ Total with 19% VAT = €2.08 per gallon / €.55 per liter
\$2.60 per gallon / \$.70 per liter

Trends in public transit, 1992-2007

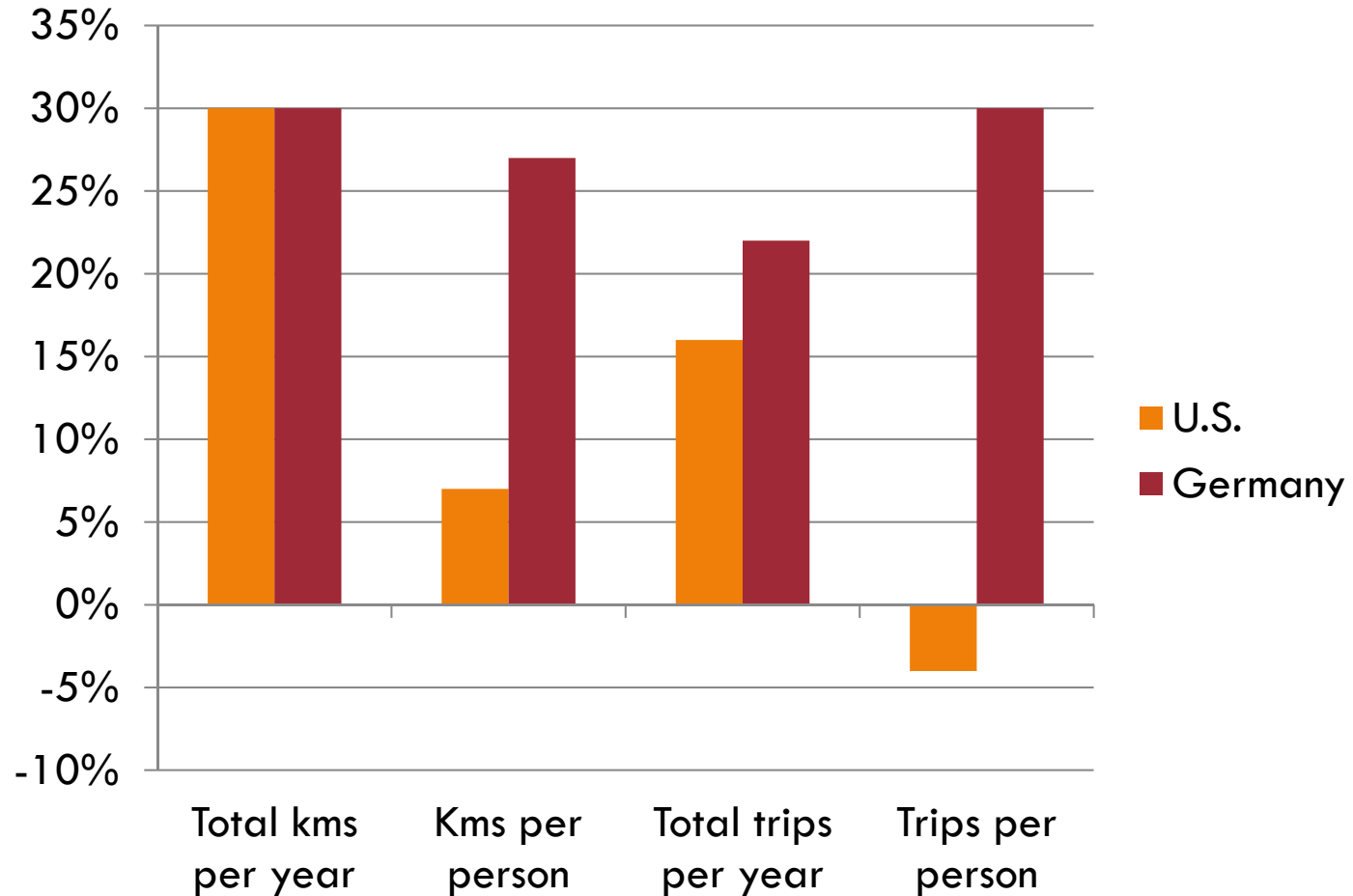
- In US, transit supply increased faster than demand
 - ▣ Service kms increased
 - ▣ Transit trips increased overall, but decreased per capita
 - ▣ Farebox recovery decreased
- In Germany, transit demand increased faster than supply
 - ▣ Service decreased and fares increased
 - ▣ Ridership increased (overall and per vehicle km)
 - ▣ Farebox recovery increased
 - ▣ Costs decreased and productivity increased

Trends in public transport *supply*, 1998-2007 (annual vehicle kms)



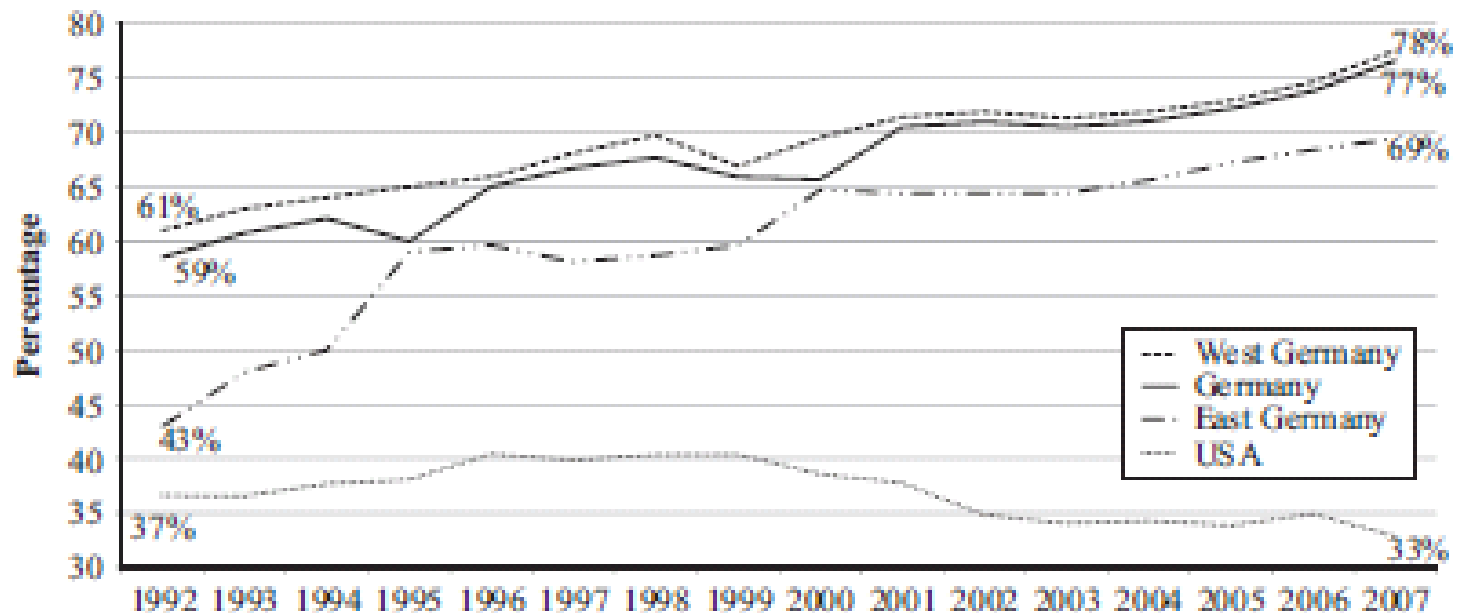
Source: Buehler & Pucher, 2010

Trends in public transport *demand*, 1990-2007

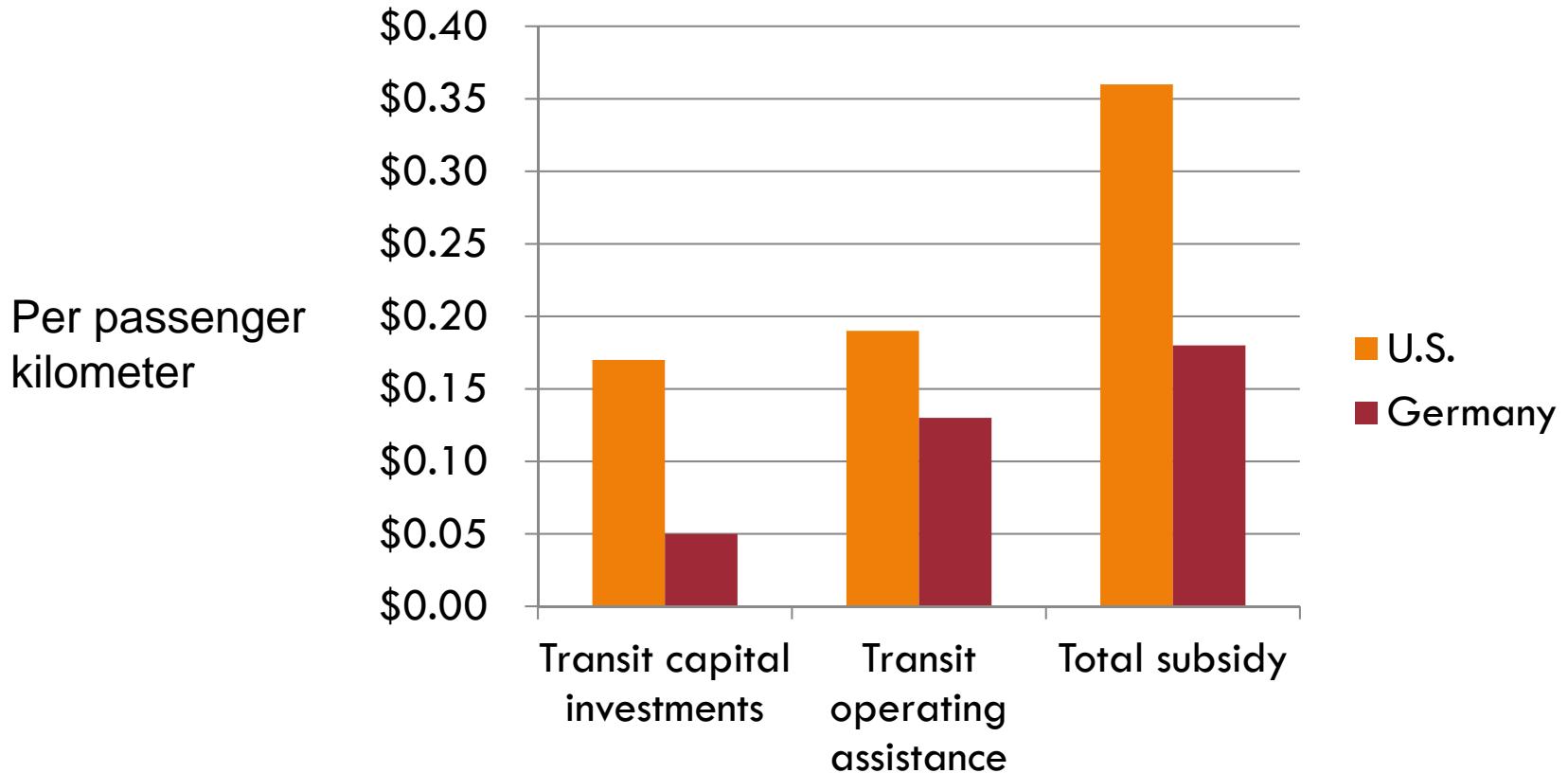


Source: Buehler & Pucher, 2010

Farebox revenue as share of operating costs



Government subsidies, 1997-2006



Source: Buehler & Pucher, 2010

Finance mechanisms for public transit used in US and Germany

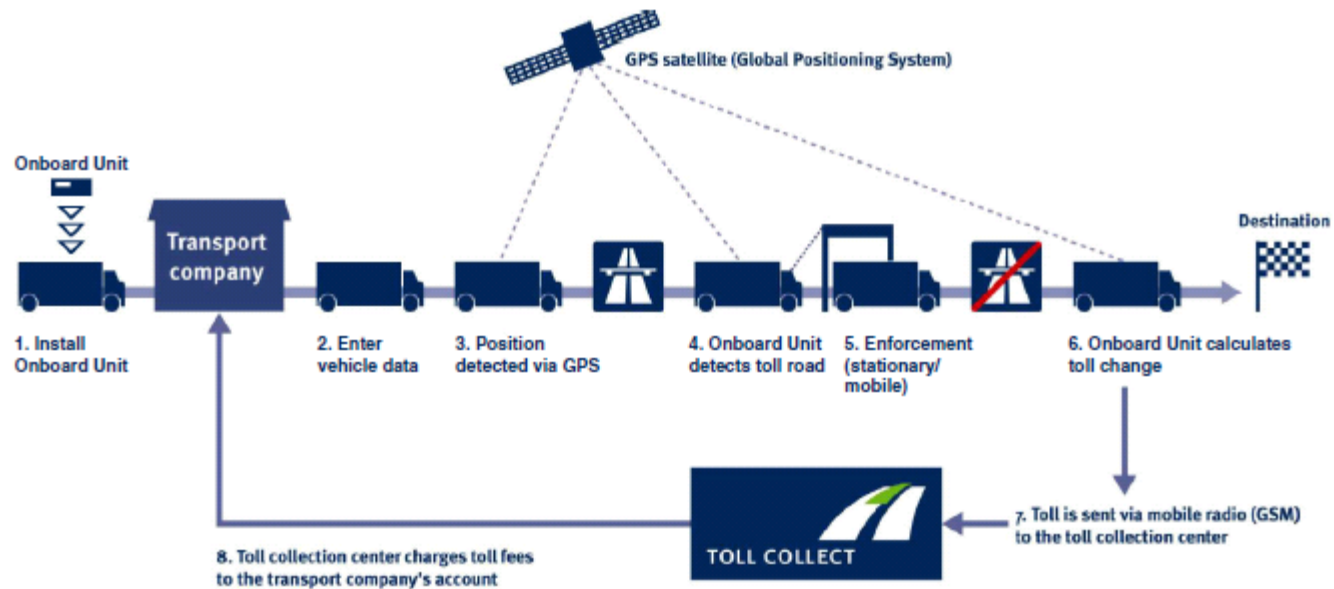
- Traditional
 - ▣ Fares and other user fees
 - ▣ Public subsidies and debt (bonds)
 - ▣ Cross-subsidies – gas tax revenues, tolls from roads, bridges, parking

Finance mechanisms for public transit used in US and Germany

- Emerging
 - ▣ Sales tax increments
 - ▣ Impact fees
 - ▣ Road pricing
 - ▣ Value capture/joint development at stations
 - ▣ Public private partnerships (PPP) and concessions
 - ▣ Tax increment financing (TIF)
 - ▣ Infrastructure banks

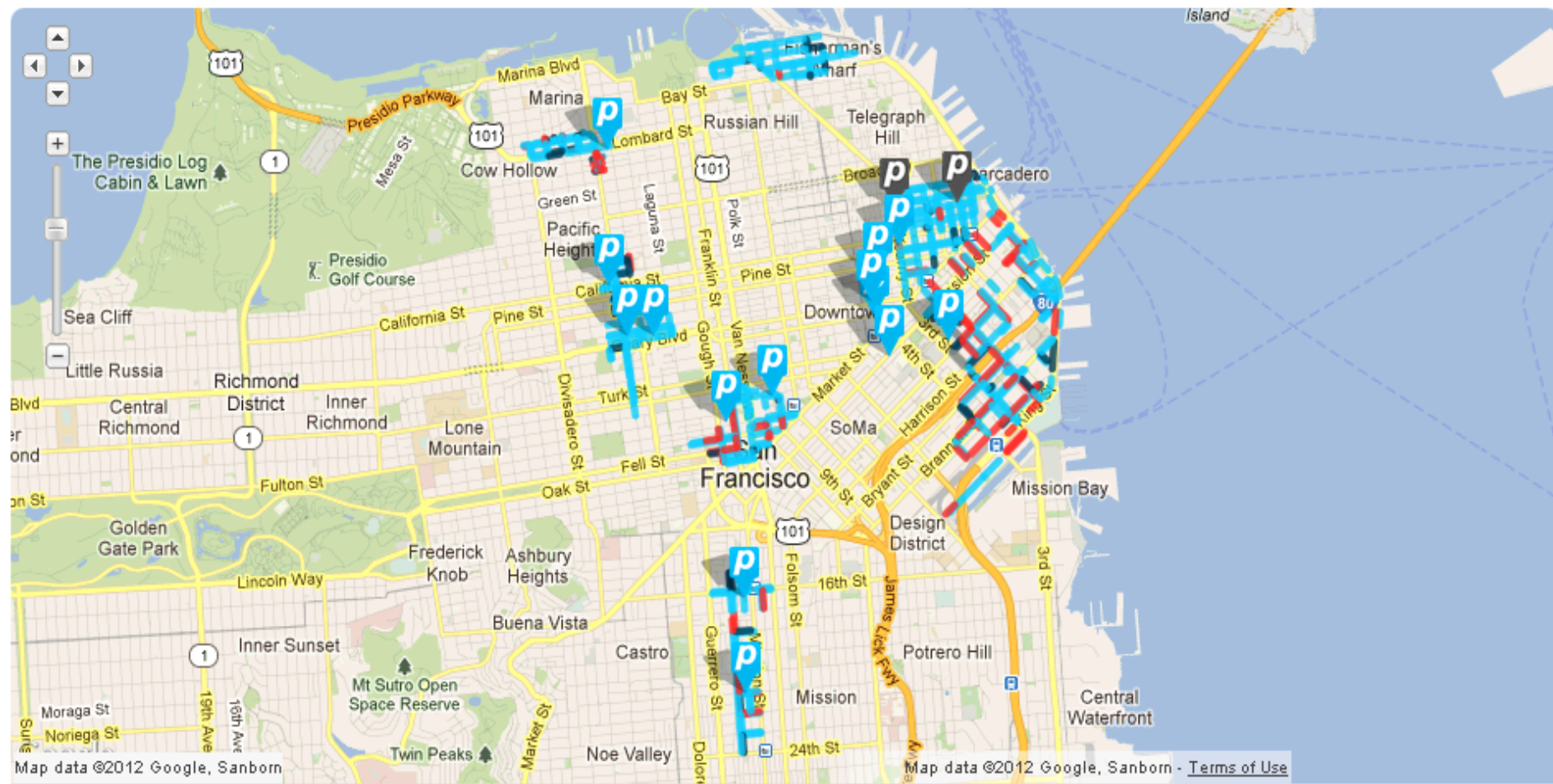
Innovative models

- Dynamic parking pricing – SF Park in San Francisco
- GPS-based road pricing – German truck toll/LKW Maut





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Find parking:

Availability
Rates
Refresh
Low
High

Today: Opportunities for trans-Atlantic exchange

- Best practices from US and Germany:
 - ▣ Dulles Corridor Metrorail
 - ▣ Dynamic ride-sharing and HOT lanes in the Northern Virginia region
 - ▣ Coordinated transit, mobility and land use planning in the Stuttgart region
 - ▣ Virginia's Transportation Infrastructure Bank