Zurich's S-Bahn System Lessons for the San Francisco Bay Area

Andrew Nash, P.E.
San Francisco County Transportation Authority

Zurich

•	Population (City)	,000
•	Population (Region)1,178	8,000
•	Number of towns in region	171
•	Transit Trips per capita	550
•	Automobile registrations per 1000	.420

Lesson 1: Planning is not straightforward.

- Tiefbahn Plan -- 1962
- U-Bahn/S-Bahn Plan -- 1973
- Transit Speed-up Initiative -- 1976
- S-Bahn Plan -- 1980

Tiefbahn Plan

- Developed in 1962 to address growing traffic congestion.
- Put existing streetcar system underground.
- Cost 550 million SFr (\$375 million)
- Defeated by the voters -- wanted a Metro system.

U-Bahn / S-Bahn System

- City Metro and Suburban Commuter Rail.
- Cost 1 billion SFr (\$675 million).
- Plan defeated by voters in 1973.
- Voters felt
 - Cost too high.
 - Required reorganizing existing streetcar system
 - Would cause "Manhattanization" of Zurich.

Transit Speed-up Initiative

- Cost 200 million SFr (initial program)
- Citizen Initiative approved in 1976
- Focused on improving existing system:
 - Add transit only sections of road.
 - Traffic signal priority for transit.
 - Real time transit control center.

S-Bahn Initiative

- 10-Year Cantonal Planning Process -- started with earlier U-Bahn/S-Bahn plan.
- Approved by voters in 1981
- Cost
 - 523 million SFr (local)
 - 130 million SFr (Federal)
 - Eventually about 2 million SFr (\$1.35 billion)

S-Bahn Project

Objective

 Make existing rail infrastructure better serve growing suburban trips.

• Plan

- Construct 1.25 mile tunnel under city to Main Station.
- Build new 4 track underground through station at Main Station.
- Build 2 new interchange stations at tunnel portals.

Lesson 2: Use existing infrastructure & technology

- Zurich S-Bahn built on the region's existing national rail network.
- Zurich tested several vehicle concepts before developing its fleet.
- Zurich studied other S-Bahn systems and learned from their problems (e.g. Munich).

Lesson 3: Leverage institutional change.

- Initiative required the Canton to become involved in public transit for the first time.
- This financial commitment was leveraged by requiring in the initiative that the 40 (!) local transit operators coordinate schedules and fares.
- Zurich also studied other regional organizations to learn how to best structure their new agency.

Implementing a Regional Rail Transit System -- Lessons from Zurich

- Lesson 1: Planning is not straightforward and takes time.
- Lesson 2: Use existing infrastructure and tested technology.
- Lesson 3: Use new system and financial commitments to leverage institutional change.