Improving Public Transport Efficiency
The Example of the Greater Zurich Area
Greater Zurich Area – a good example?
Passengers in Commuter Trains vs. Private Car Traffic at Zurich City Limits [in %]

commuter trains

capacity equivalent: 14-lane motorway [peak hour]

private cars
Modal-Split in Switzerland 1990 vs 2000

- Public transport decreasing
- Public transport improving

Greater Zurich Area
Optimized Transport Planning – more than a golden triangle

- **Demand**: bottlenecks, future demand, induced demand
- **Financing**: infrastructure, operational deficit, state, region, municipality
- **Rolling Stock**: trains, buses, tramways, when to order? specifications? number?
- **Politics**: citizen initiatives, national programs, regional needs
- **Infrastructure**: stations incl. access, new or renewal?
- **Timetable**: transport chain, capacity needs
Go where the Market is
It is all about the transport chain

relevant factors
- easy access (fare structure and timetable)
- frequency and duration of services (whole transport chain)
- excellent and reliable connections
- total journey time (compared to private cars)
- network density
- security / comfort / cost of trip / others
Easy Access: Integrated Ticket System

- fully integrated
  - valid for all means of transport
- tickets valid by zone and time
  (not by destination and trip)
  - number of trips within time and zone not limited
- standardised points of sale
  - ticket vending machines
  - bus driver
- tickets types
  - 1-2 hours, 24 hours, 1 month, 1 year
  - available for all combinations of zones
Easy Access: Standardised Customer Information

- Web page
- Mobile devices
- Timetable
- Leaflets
- Tickets
- Bus stops
- On board
- Standardised customer information
- ZVV-Contact 0848 988 988
- www.zvv.ch

14.11.2008 UN-Workshop Chisinau
Keep Timetables Simple and Understandable

commuter trains
accel. commuter trains
IC trains

accel. commuter train
≈20-40km = 30’ interval

optimising connections
train - train
train - bus

connecting buses

interval families
7.5’ – 15’ – 30’ – 60’

connecting buses

interval families
7.5’ – 15’ – 30’ – 60’

interval families
7.5’ – 15’ – 30’ – 60’
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Reducing Road Traffic by Reducing Parking Space

- all car parks are clearly marked and collect charges, no “wild” parking allowed
- parking meters which allow long time parking reduce the number of movements
- political compromise: for every new public car park newly built, an existing one has to be eliminated (City of Zurich only)
- severe restrictions when building new traffic-intensive buildings (e.g. supermarkets)
  - limited number of car movements – in case of more movements, parking space has to be reduced
Reducing Car Possession
Public Transport Tickets include Car Sharing
Infrastructure and operations financing

- Centralised financing is favoured over all systems optimisation.

- Approx. 7% of the total tax income of the Zurich Region goes into public transport.

- USD 90m per year (fund) to finance new infrastructure.
- USD 380m per year (2007) to cover operational deficit.
Conclusions

- Public transport functions only as an integrated network
  - Every trip starts at home
  - Changing modes requires very high reliability
  - Integrated fare structures

- Keep it simple (it is already quite complex)
  - Fare structure, timetable, passenger information

- Don’t forget the private car traffic – limit parking space and road capacity

- Good public transport is expensive - but it pays off!