

Transportation Planning Educational Tour



Some facts about Freiburg



About the city:

- 220.000 residents 30.000 students
- Population growing rate about 1%
- beautiful city with historic old town

Environmental policy:

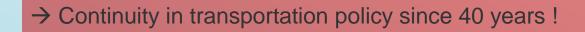
- Often named "eco capital of Germany"
- Long tradition of environmental policy (since 1970)
- Strong influence of green policy



Freiburg – Development of Traffic policy

<u>1970's:</u>

- decision of the City Council
 for pedestrian zone and light rail extension
- <u>1980's:</u>
 - first new light rail track
 - new public transport ticket
- <u>1990's:</u>
 - integrated urban /transportation planning
 - city of short distances
 - regional railway system
- since 2000:
 - extension light rail system
 - cycleways improvement







Mode Split: Work Trips

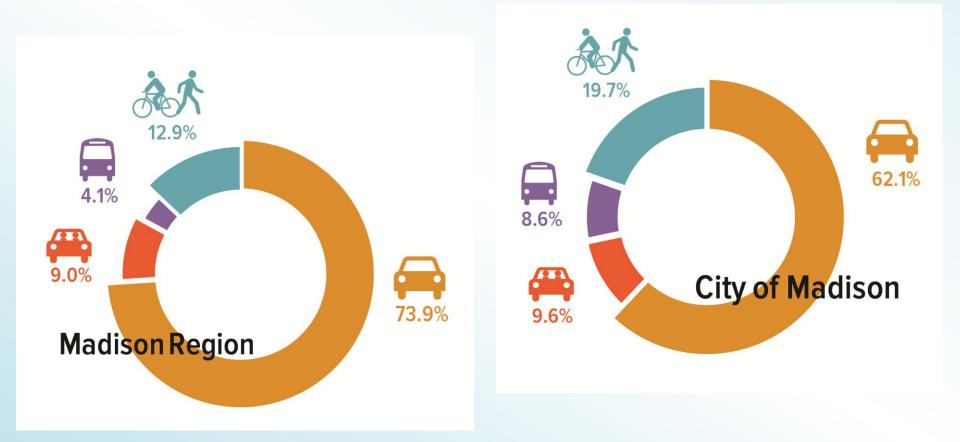
Freiburg

- Auto: 30%
- Bicycle: 28%
- Walk: 24%
- Transit: 18%

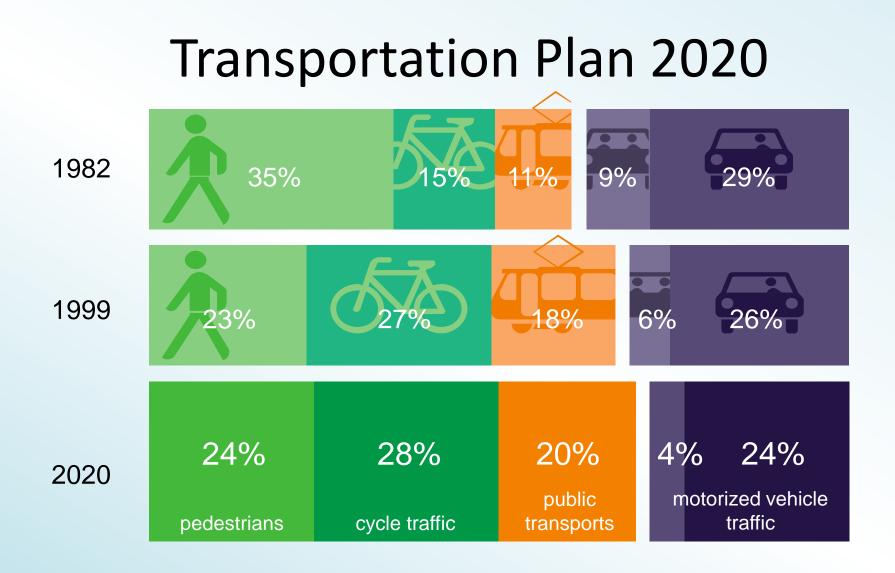
Madison

- Auto: 73%
- Bicycle: 5%
- Walk: 10%
- Transit: 8%
- Other/Work at Home: 4%

How do Madison residents travel to work?



Source: US Census American Community Survey, 2008-2012



Public transport in Freiburg





Light Rail Network

- 30 km tramway network
- 7.5 min fixed time service at rush-hours
- Priorization at all junctions, separate tracks
- Backbone of public transports in the city (70% of passenger ridership)

City Busses

- 65 buses
- 274.3 km network
- priorization at many junctions
- 30% of ridership
- "feeder" system to light rail

Madison/Freiburg Facts & Issues

Population Density

- Freiburg (3,750/sq. mile; dense City center)
- Madison (3,000/sq. mile)

Annual Transit Ridership

- Freiburg (77,000,000 passengers)
- Madison (15,000,000 passengers)
- Freiburg: Transit provided by private companies (service contracts); strong federal, regional and City transit subsidies
- Madison and Freiburg Advanced programs for bicycle infrastructure planning and construction

Public transport in the region





Regional rail system

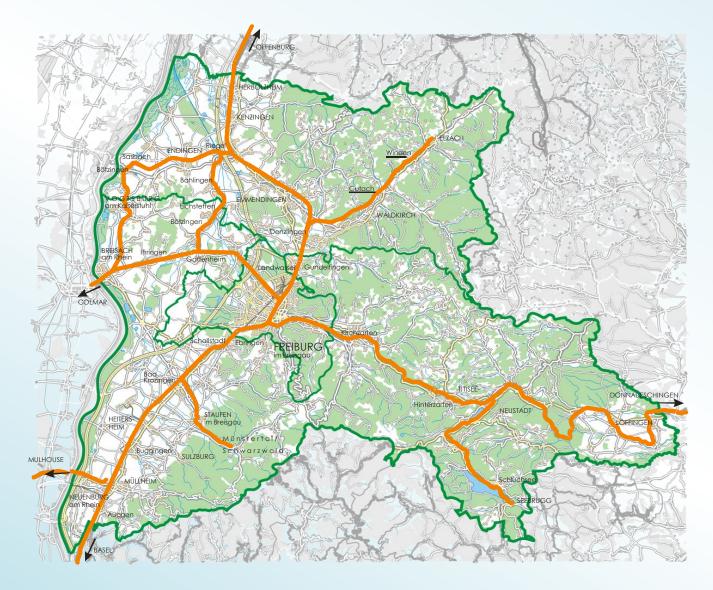
- Fixed time service (30-min)
- Comfortable refurbished system
- Park & Ride
- Bike & Ride



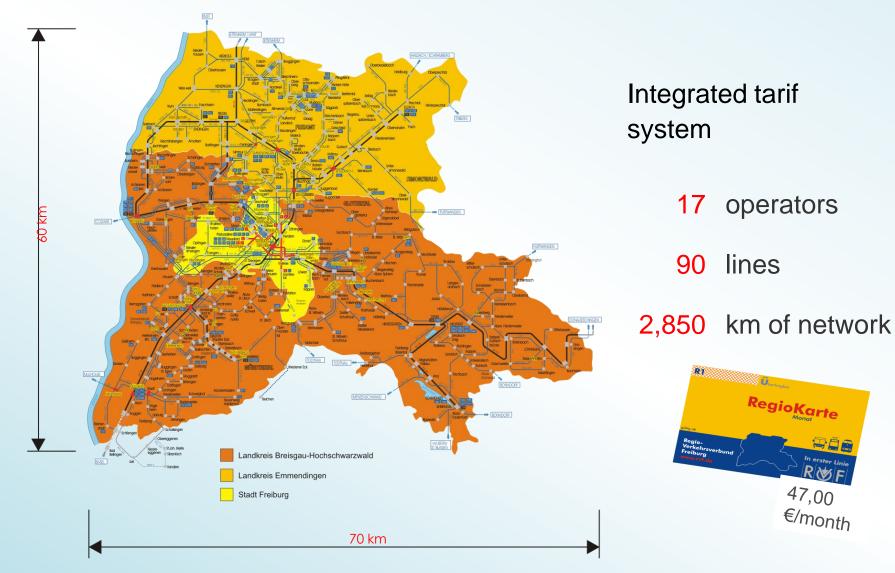
Regional bus system

- Integrated rail/bus-conception
- Integrated tarif (fare) system

Regional rail network



Public transport in Freiburg and the region



Cycle traffic in Freiburg





Cycle path network: 420 km





 \rightarrow Madison - bike paths (82 km); marked lanes (182 km); bike-friendly streets (187 km)

Bicycle planning - infrastructure





cycle lane between sidewalk and parking lane / motor car lane



cycle lane on the carriageway next to motor car traffic



Bicycle planning - infrastructure





Independant cycle track, partly mixed with pedestrians



Cycle streets
- streets with priority for cyclists



Cycle traffic in Freiburg - examples





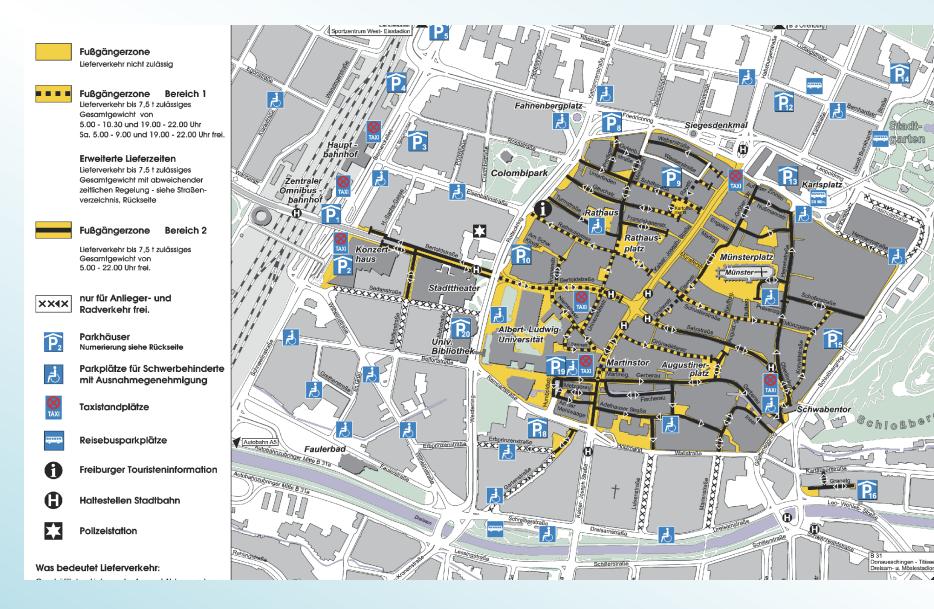




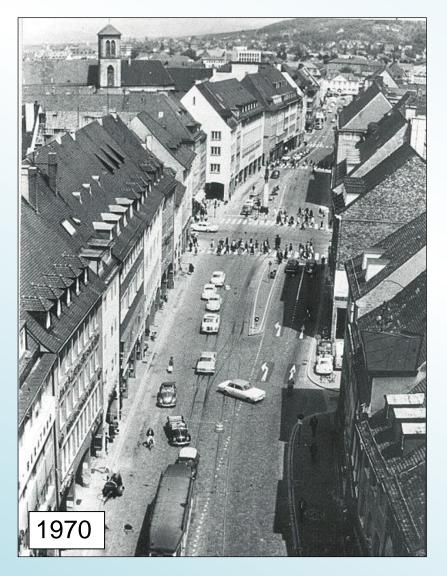
Pedestrian zone with tram

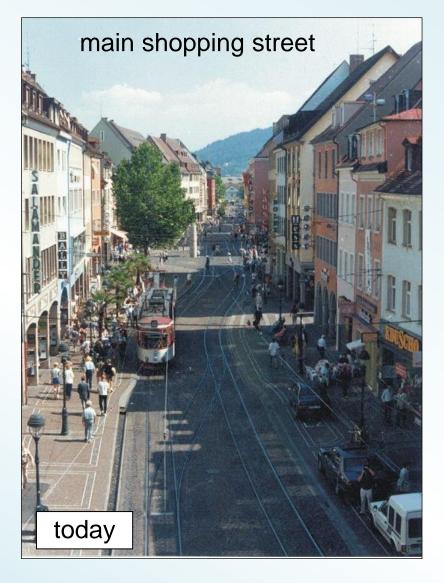


Pedestrian zone with tram



Restrictions on motor car traffic





Restrictions on motor car traffic

place of the cathedral

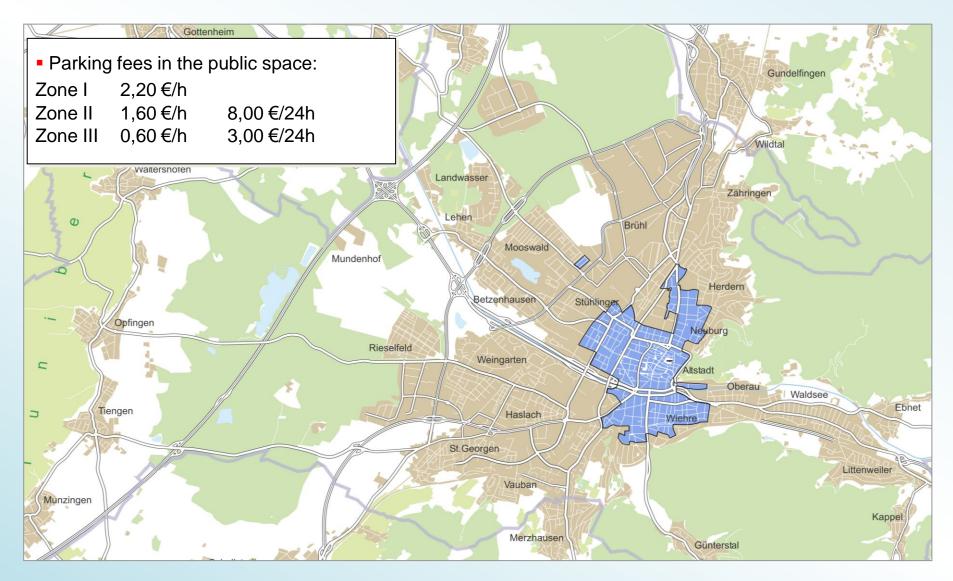


1970



today

Parking space management











Traffic Calming – speed limit 30 km/h

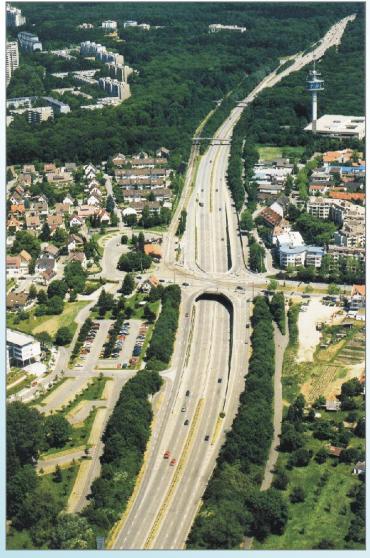


before conversion



today

Individual motorized vehicle traffic



- Channel individual motorized vehicle traffic
- Noise protection
- Relieving congestion in residential areas





Park and Ride Locations

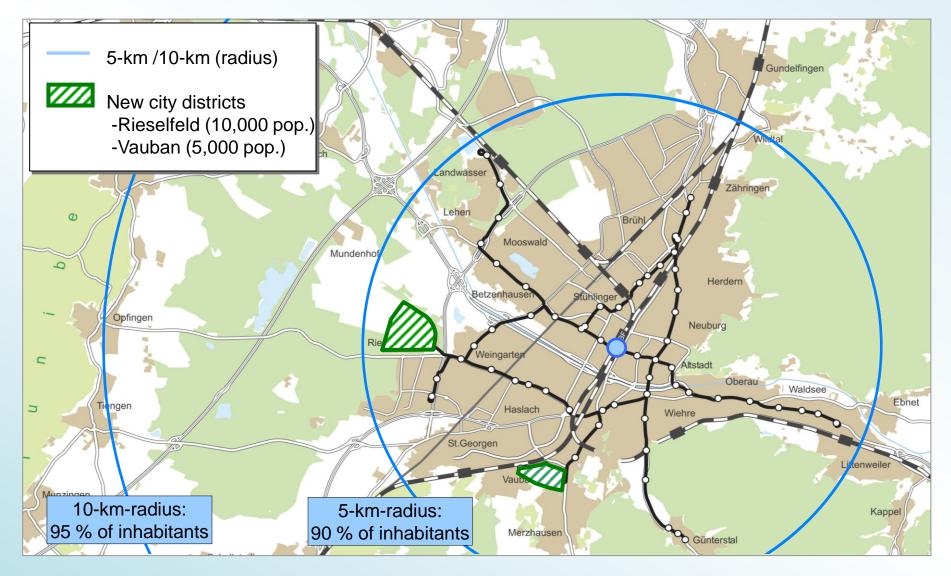
Verknüpfungspunkte der Mobilität

- Beispiel P + R:
- 2630 <u>kostenlose</u>
 P + R-Plätze
- davon 1450 nur am Wochenende





Integrated urban and traffic planning



Residental streets







- speed limit: walking speed
- children are allowed to play on street
- no parking outside marked places

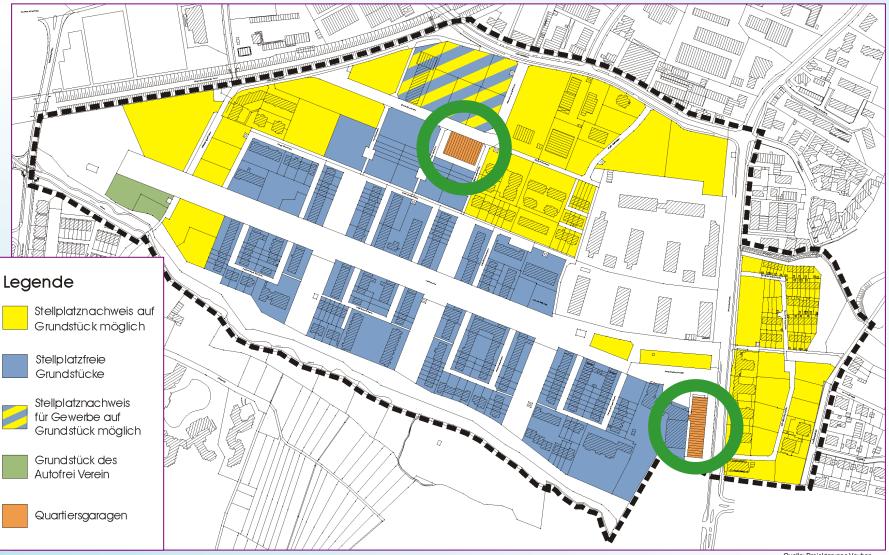
Rieselfeld



Vauban 2006



Parking concept Quartier Vauban



Quelle: Projektgruppe Vauban Kartengrundlage: Vermessungsamt



Vauban – access by light rail



Vauban – residental street

























Madison/Freiburg: Key Differences

- Freiburg: Constrained retail economy
- Dense residential living environment (many fewer detached single-family homes)
- Small lot homes (periphery)
- Fuel cost in Germany: ~\$8.00/gallon
- Parking costs higher in Freiburg central City, but overall comparable
- Government support for transit infrastructure and service much higher in Germany
- Private/delivery vehicle size; much smaller in Europe
- Madison: Snow maintenance/storage

Madison in Motion: Ideas to Evaluate

- Vauban land use model; shared parking on periphery of planned developments; play streets in residential areas (Activity Center concept)
- Small areas within City center where auto access is restricted (e.g., State Street and environs)
- Bicycle and pedestrian traffic comingled in central City (autorestricted) zones
- Continued investment in bicycle facilities and services
- New investments in high-capacity transit (i.e., BRT) and/or central area circulator
- Circulator to link non-core auto parking facilities to central City
- Secure, covered park-and-bike areas at transit stations (Activity Centers)

