# Freiburg/Strasbourg

### 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





→ Continuity in transportation policy since 40 years!

### **Mode Split: Work Trips**

#### **Freiburg**

Auto: 30%

Bicycle: 28%

• Walk: 24%

Transit: 18%

#### **Madison**

Auto: 73%

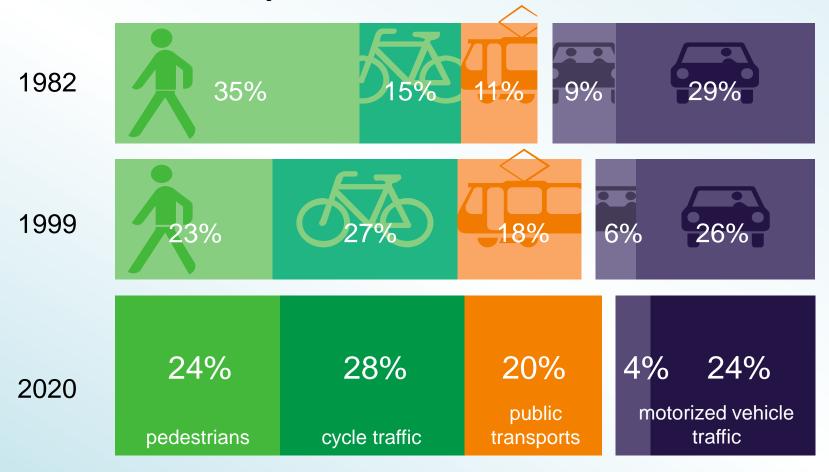
Bicycle: 5%

• Walk: 10%

Transit: 8%

Other/Work at Home: 4%

### **Transportation Plan 2020**



# 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

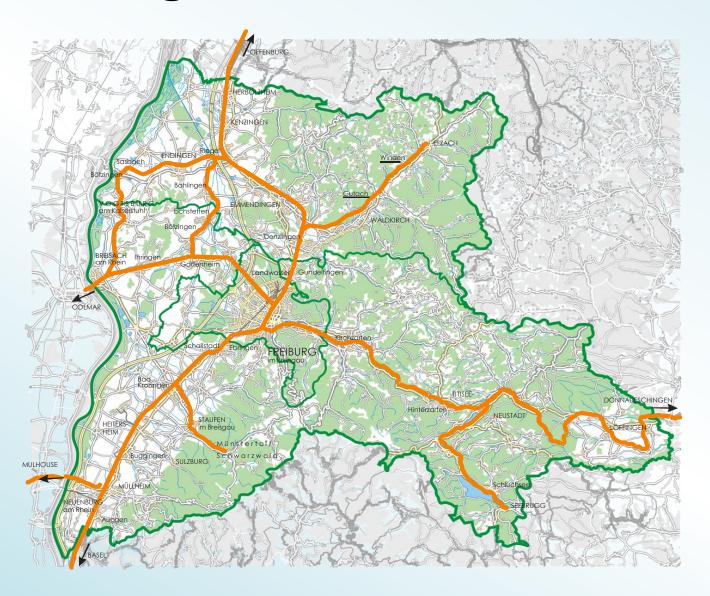




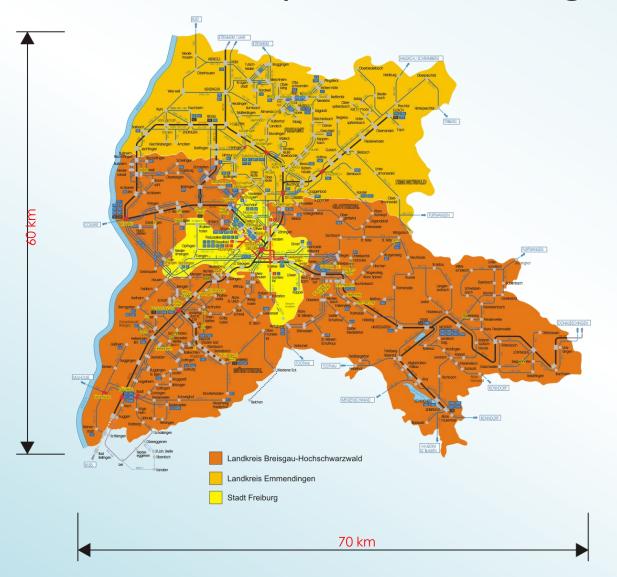
#### Regional bus system

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

# Regional rail network



### Public transport in Freiburg and the region



Integrated tarif system

17 operators

90 lines

2,850 km of network



# Cycle traffic in Freiburg





Cycle path 30 ZONE

Cycle friendly street 130 km



→ 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





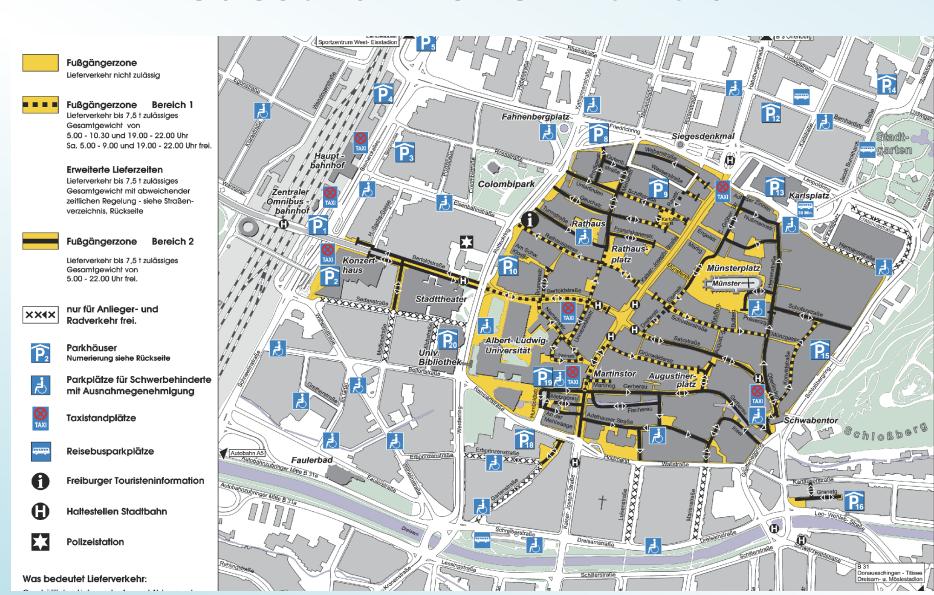




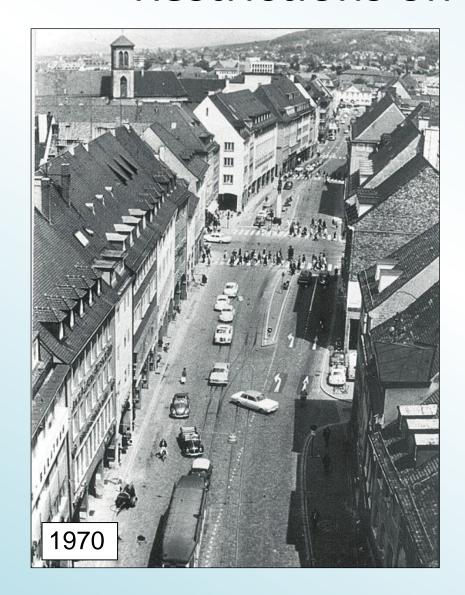
### Pedestrian zone with tram



### Pedestrian zone with tram



#### Restrictions on motor car traffic



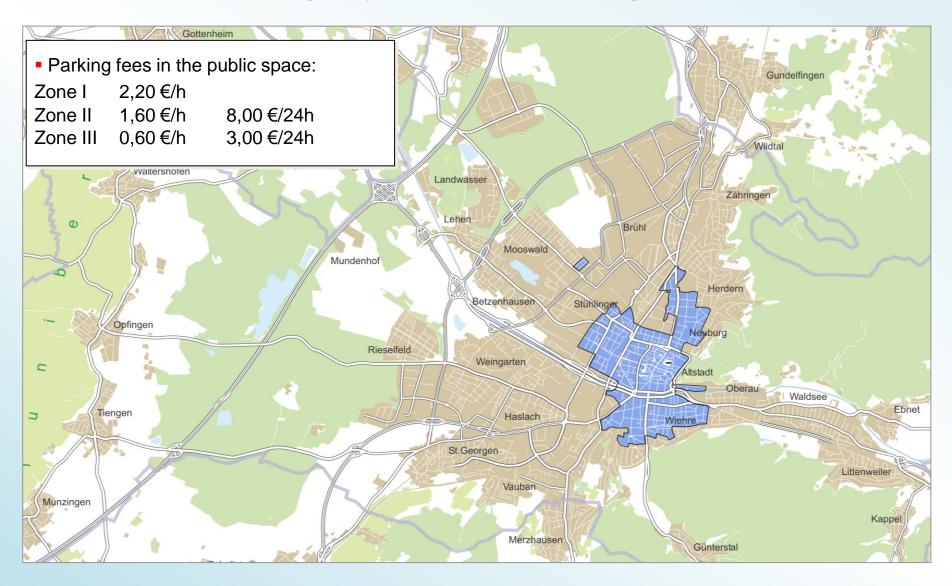


#### Restrictions on motor car traffic

place of the cathedral

1970

# Parking space management











### Traffic Calming – speed limit 30 km/h

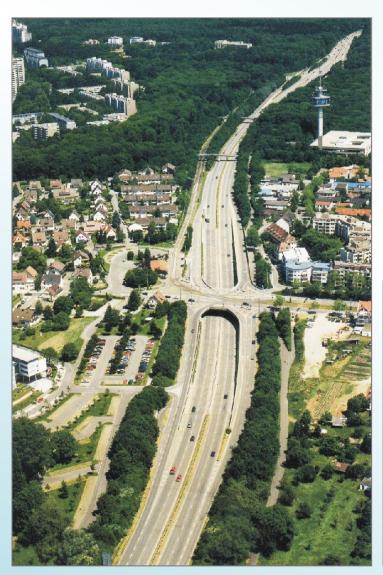


before conversion



today

### Individual motorized vehicle traffic



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





#### Park and Ride Locations

#### Verknüpfungspunkte der Mobilität

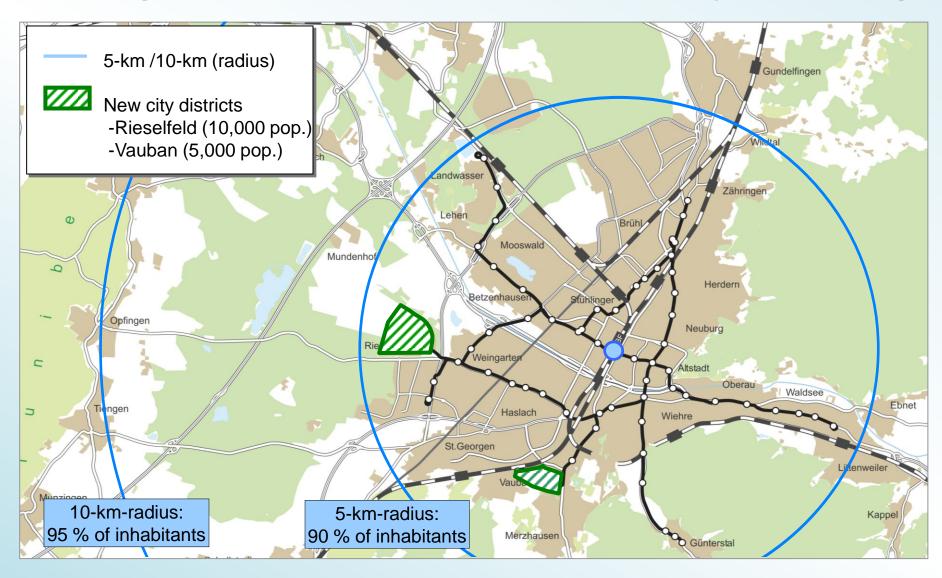
#### Beispiel P + R:

- · 2630 kostenlose
  - 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)
- Circulator to link non-core auto parking facilities to central City
- Secure, covered park-and-bike areas at transit stations (Activity Centers)







