

# Mobility within the city of Luxembourg



# Bicycle - Concept

- Objectives
- Infrastructure
- Tool box
- Projects
- Parking / Park and Bike
- Improvement of services around the bike
- Vel'oH! – bicycles for hire



# Bicycle concept - objectives



- Objectives:

- promotion of the development of the soft modes

- increase of the modal part of the bicycle from 1 to 10 % by 2015

- «Bike circulation as a system»

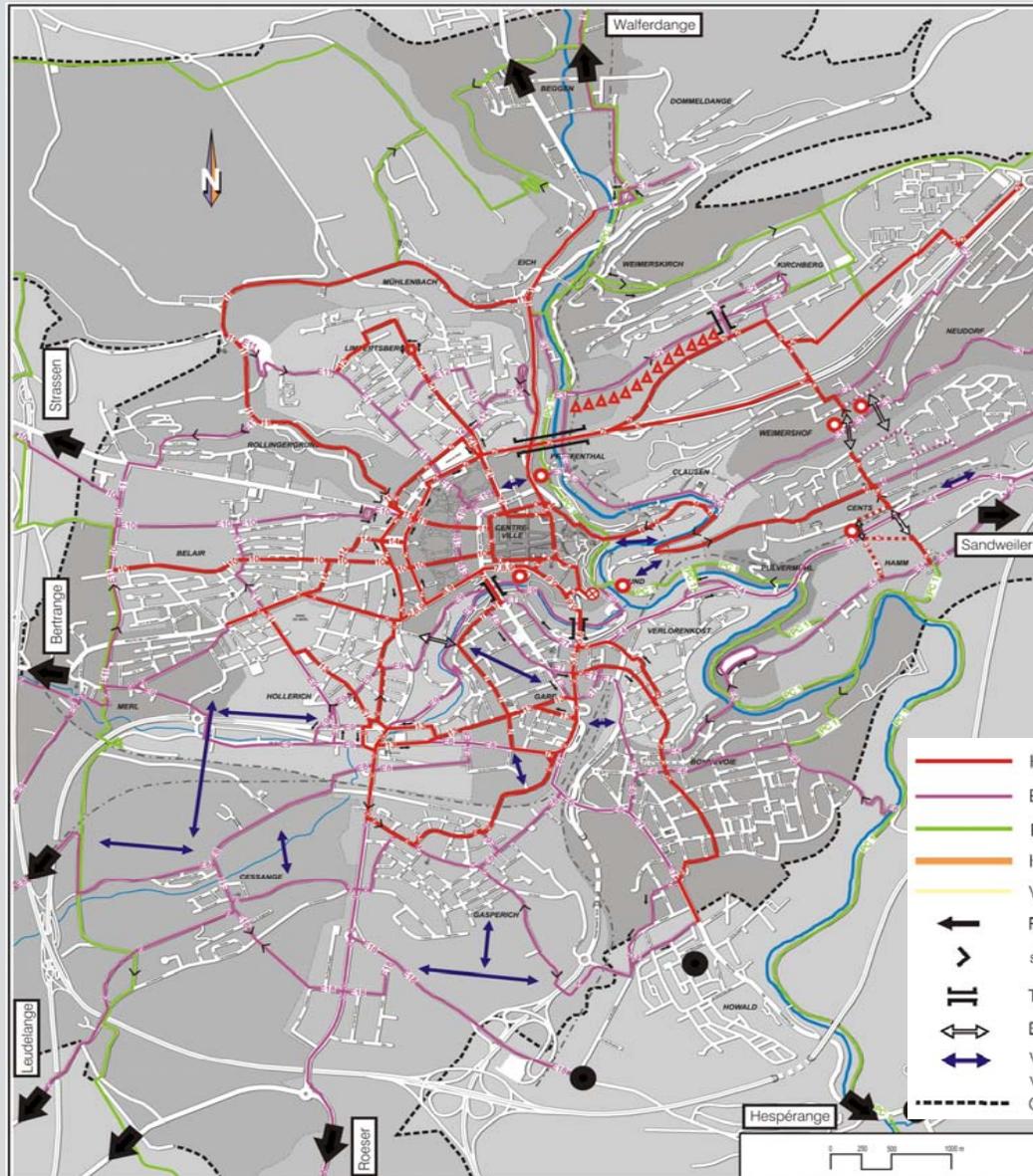
- a) achievement of the infrastructures

- b) services around the bike

- c) communication and awareness raising

- d) follow-up and evaluation

# Bicycle concept - infrastructure



- 15 radial main routes  
42 km
- 13 complementary routes  
as extension of the main routes  
16 km
- 15 tangential secondary routes  
43 km

	Hauptroute		Alternative Hauptroute
	Ergänzungsrout		Alternative Ergänzungsrout
	PC, Talroute und Zuführungen		topografische Barriere
	Hauptverkehrsstraße (> 10.000 Kfz/Tag)		Lift (Bestand)
	Verkehrsstraße		Lift (Vorschlag)
	Routenführung in einer Fahrtrichtung		Fahrradlift (mögliche Strecke)
	starke Steigung		Fahrradmitnahme im Bus (mögliche Strecke)
	Talbrücken (Bestand)		Ziel außerhalb Luxemburg Stadt (< 7 km von Zentrum entfernt)
	Brückenstandort in Diskussion		
	Verbindung in Abhängigkeit von Planungen		
	Grenze des Stadtgebietes		

# Bicycle concept – Tool box



Bicycle traffic in opposite direction  
20 kph Zone



Bicycle sign boards



Waiting area for biker making indirect left-turns

# Bicycle concept – Tool box



Biker in the bus-lane



Bicycle lock



Pedestrian zone  
Bikes permitted

# Bicycle concept – Tool box



Bike duct



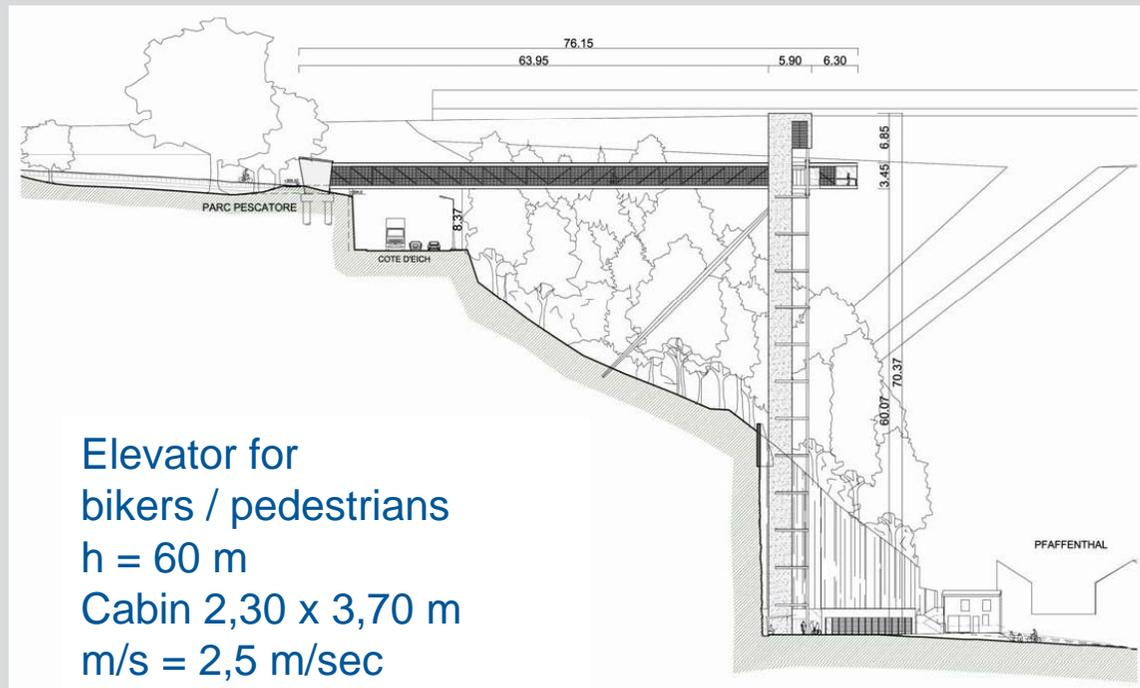
Bike elevator



Light signal for bikers

# Bicycle concept – Projects

## Pedestrian and bike connection "Pfaffenthal – Upper city"



Elevator for  
bikers / pedestrians  
 $h = 60 \text{ m}$   
Cabin  $2,30 \times 3,70 \text{ m}$   
 $m/s = 2,5 \text{ m/sec}$

# Bicycle concept – Parking / Park and Bike



Bicycle racks



P+B Bouillon



Service bicycles

# Bicycle concept – Improvement of services around the bike



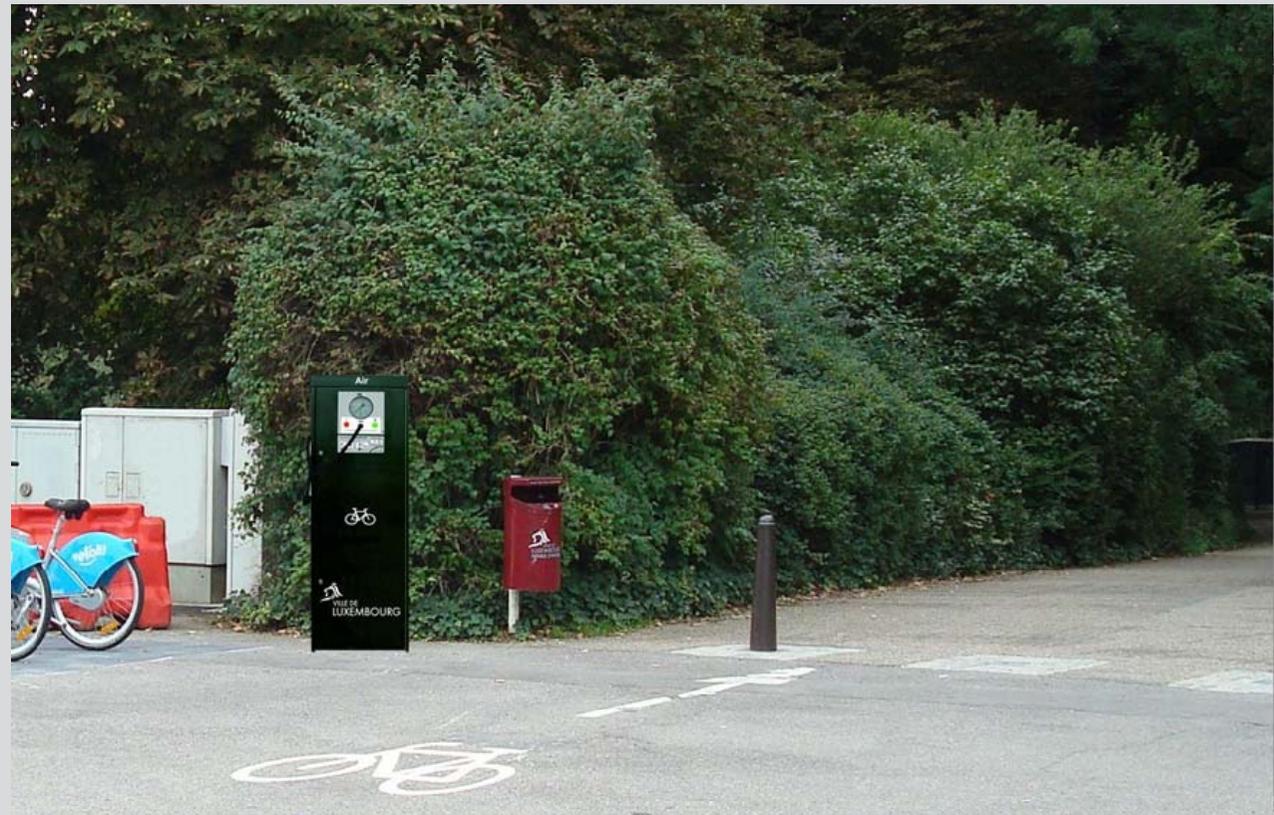
Bike-Counter



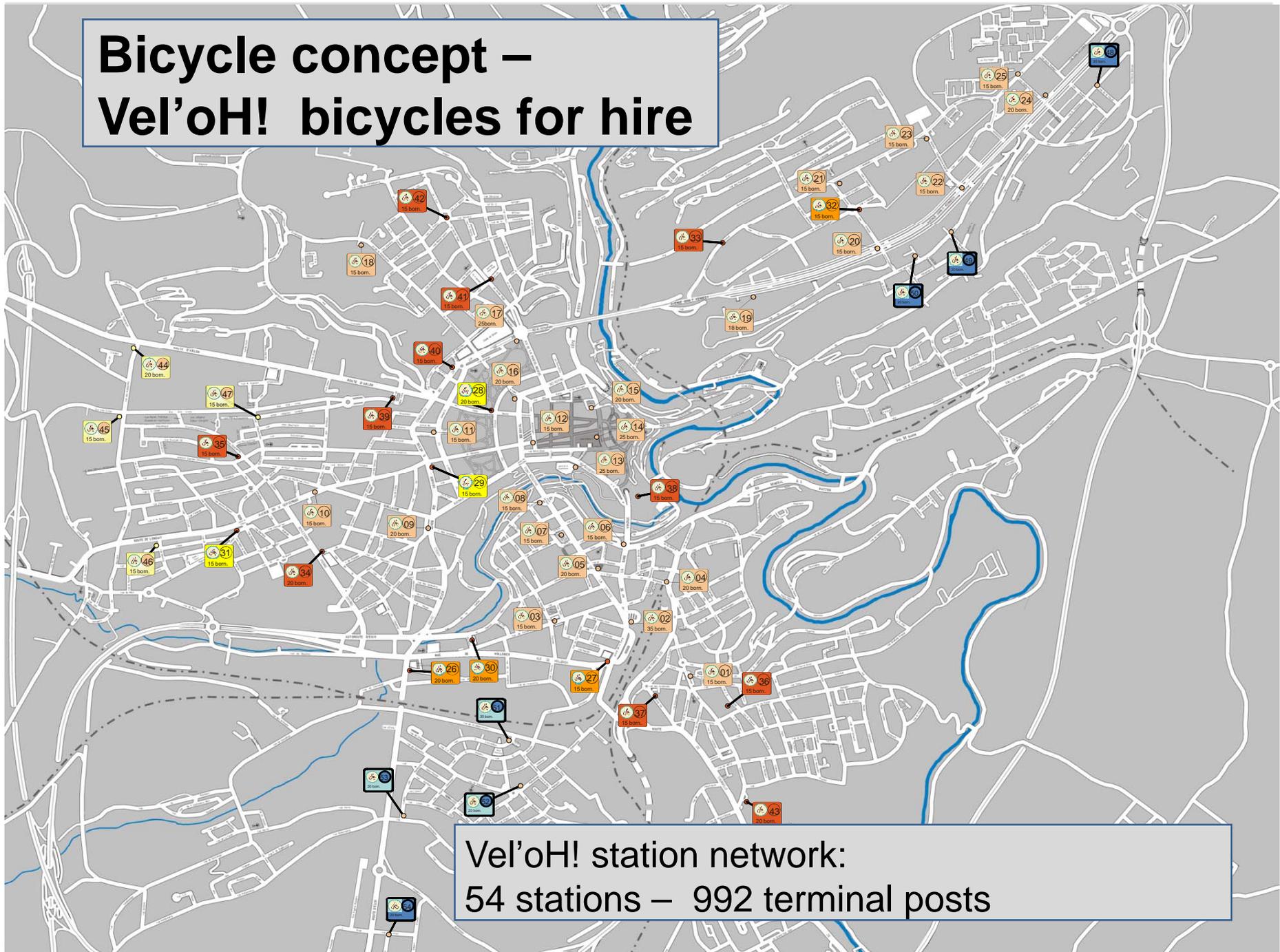
# Bicycle concept – Improvement of services around the bike



Inflating station



# Bicycle concept – Vel'oH! bicycles for hire



Vel'oH! station network:  
54 stations – 992 terminal posts

# Bicycle concept – Vel’oH! bicycles for hire



Bike availability  
displayer



Station map  
Interactive orientation screen



Vel’oH! Station

# Public transportation

- Plan of the bus network
- Network in figures
- Special services
- ITCS system





# Public transportation – network in figures

- 31 bus lines
  - 25 regular lines
  - 3 nocturnal lines (City Night Bus)
  - 2 Joker lines
  - 1 free shuttle « City Shopping Bus » for shopping in the city
- School transportation
- Special services
- Length of network : 147 km
- Lanes reserved for buses : 24,55 km
- Bus stops
  - total number of stops : 645
  - total number of bus shelters: 263



# Public transportation – special services



- Bus upon demand (door to door service)

- « Rollibus » : transportation for persons in wheel chairs

- 2 bus circulations from Monday to Sunday

-  « Call-A-Bus » (CAB)

- 2 minibuses as of 9 a.m. until 11 p.m. from Monday to Saturday

# Public transportation – ITCS system



## ITCS – Intermodal Transport Control System

- ITCS is a technical system emitting data to vehicles, to the command centre and the bus stops, with the objective of :
  - improving the attractiveness of public transportation
  - supporting the bus drivers
  - optimizing the planning of urban mobility
  - improving the internal functioning of the AVL (municipal bus service)

# Public transportation – ITCS system



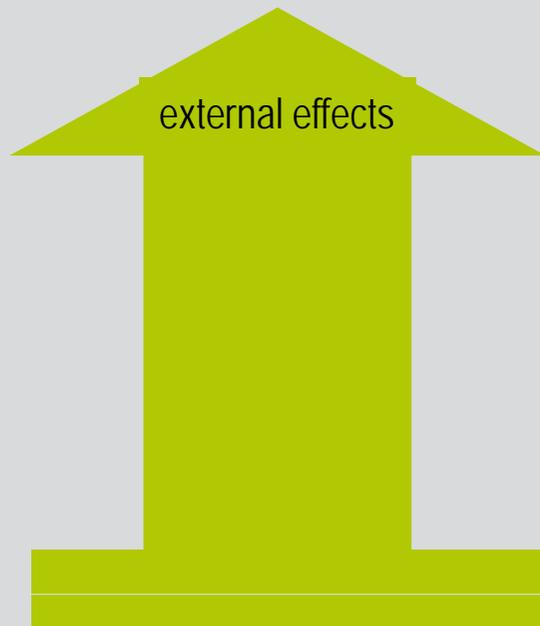
ITCS functions:

- Determine the position of the bus, the location on it's route
- Calculate the variance with regard to the schedule
- Prioritisation of the buses at the regulation by means of the traffic lights
- Command of customer information systems
- Improvement of the availability of services

# Public transportation – ITCS system



Increase of the attractiveness  
of public transportation  
for customers



Improvement of  
internal functioning



ITCS

# Public transportation – ITCS system



Centre E. Hamilius quai 6

Ligne	Terminus	Départ
9	Gare Centrale	2'
18	Kockelscheuer-Patinoire	2'
8	Gare Centrale	6'
11	Gare Centrale	8'

Dynamic information for customers

**mobilités zentral**

Ligne	Terminus	Départ	Arrivée	Statut
9	Gare Centrale	08:15	08:15	OK
18	Kockelscheuer-Patinoire	08:15	08:15	OK
8	Gare Centrale	08:21	08:21	OK
11	Gare Centrale	08:27	08:27	OK



# Public transportation – ITCS system

Dynamic information for customers



Indication of the bus line number

Indication of the destination and next terminal

Indication of the platform from which the bus of the concerned line will depart

Ligne

Destination

Quai

Départ

17

Monterey

1 A

14"

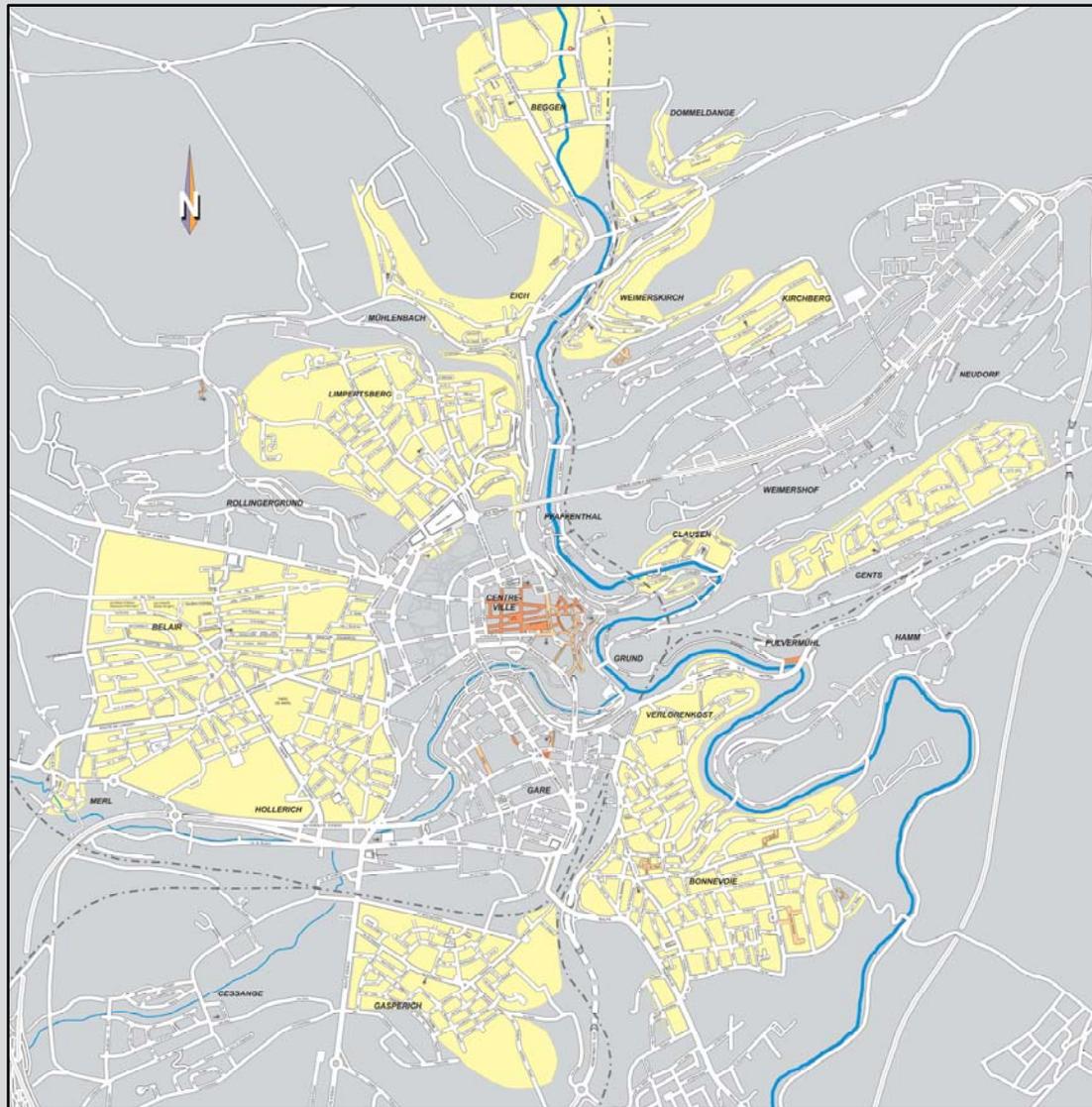
Indications relating to the departure time, in the form of a count-down or in the form of the official schedule

## 30 kph zone

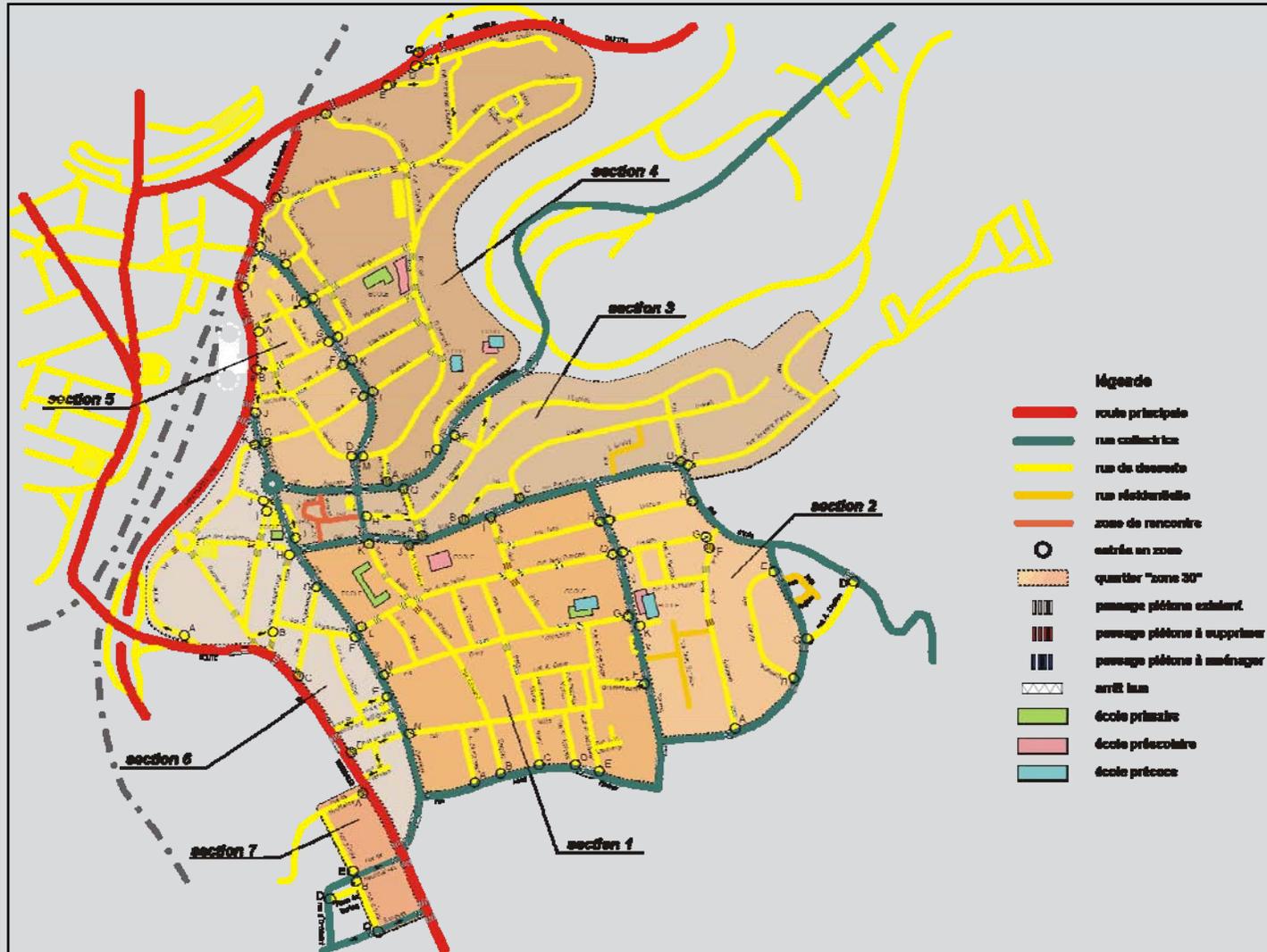


- Map of the 30 kph zones within the city of Luxembourg
- Example of a 30 kph zone: Bonnevoie area
- Provisional / définitive arrangement of the entrances to the zone

# 30 kph zone – map of the 30 kph zones in the territory of the city of Luxembourg



# 30 kph zone – example of a 30 kph zone: Bonnevoie area



# 30 kph zone – provisional arrangement of the entrances to the zone



# 30 kph zone – definite arrangement of the entrances to the zone



# Carsharing

- What is it ?
- Functioning
- Example of a carsharing station



# Carsharing – what is it?

- shared cars available 24h/24
- stations at different places in the city
- choice of different types of cars
- maintenance of cars assured
- durable alternative to possession of a personal car
- combined with bus, with bicycle or with walking, carsharing addresses in a most ecological manner automobile travel



# Carsharing - functioning

## To reserve:

- by telephone or by internet 24h/24 and 7d/7
- well in advance or just prior to departure
- choice of a station and a vehicle
- choice of the duration of the reservation

## To drive:

- pick up the reserved car at the nearest station
- fill up with fuel card if necessary
- return the car to the same station

## To pay:

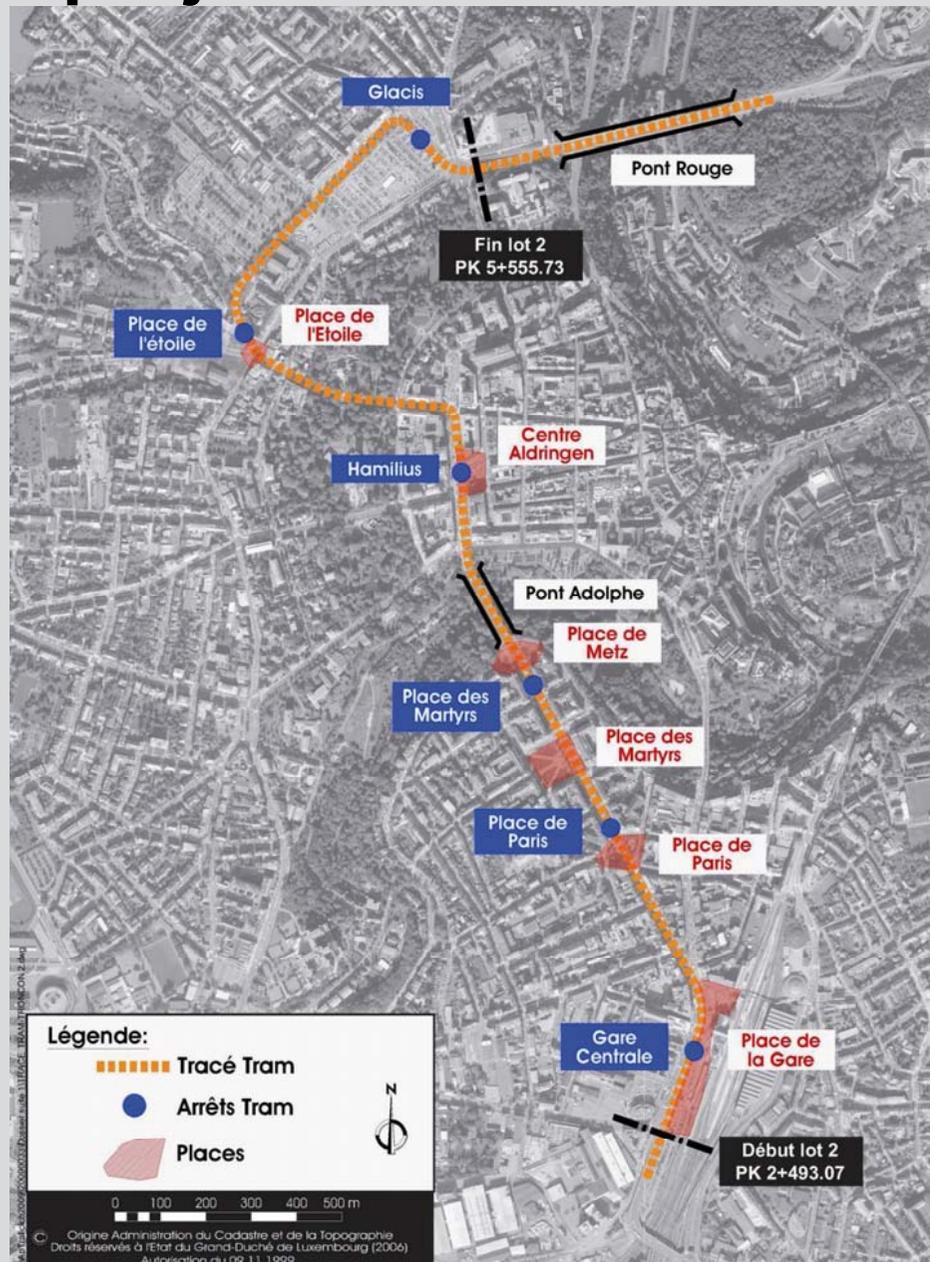
- every month detailed invoice
- precise accounts of the journeys



# Carsharing – example of a station



# Tram – projected route



## Mobility plans

- Plans for business travel (PDE)
- Plans for school travel (PDS)
- Plans for administrations travel (PDA):  
about to be worked out



# Mobility plans - PDE

## “Job-Kaart”:

- travel permit in a passengers name and issued by the AVL (municipal bus) service for a group of persons previously determined by the council of mayor and aldermen
- valid only on lines and routes established by the council of mayor and aldermen
- fare invoiced to the employer of the persons holding the « Job-Kaart » according to a convention to be established between the city and the respective employer
- conventions have been established with:
  - PriceWaterhouseCoopers,
  - Zitha-Klinik, Zitha-Senior,
  - European Commission ,
  - European Parliament,
  - European Court of Audit,
  - Court of Justice of the E.U.



# Mobility plans - PDS

- Mobility plans established for: Ecole Française, St George's School, Ecole Privée Notre-Dame



- Example EPND: Shuttle Glacis – school organised within the frame of the mobility plan

