

Inserting streetcars in pedestrian areas : French examples

Dominique BERTRAND

Senior adviser

CEREMA, *Technical Division for Territorial
Development and Urban planning*
Lyon, France

Key Presentation Take Aways

- The French “*Streets for all*” concept
- Why make streetcars cross pedestrian zones !
- Key factors for a good insertion
- Relevant locations for cohabitation between streetcars & pedestrians
- Advantages & limits

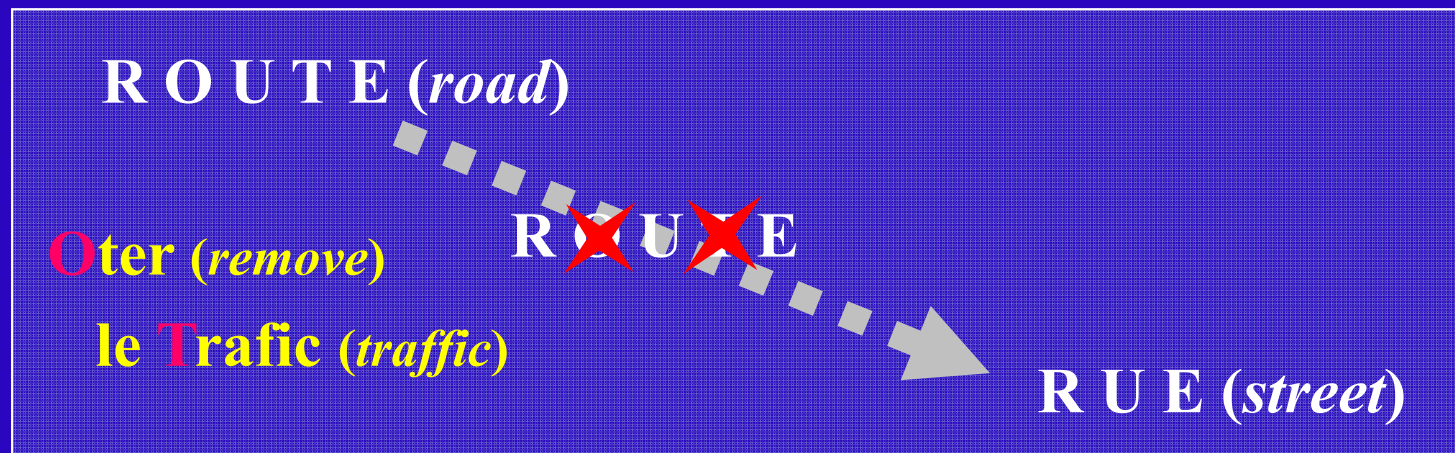
The French “*Streets for all*” concept

⇒ a more balanced use of public space...

- Promotion of active modes
- Reduction of car’s prominence







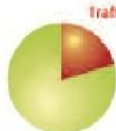



- a main regulatory tool :

The “street use code” process (*start 2006*)



The French “*Streets for all*” concept

Synthesis of running conditions in towns

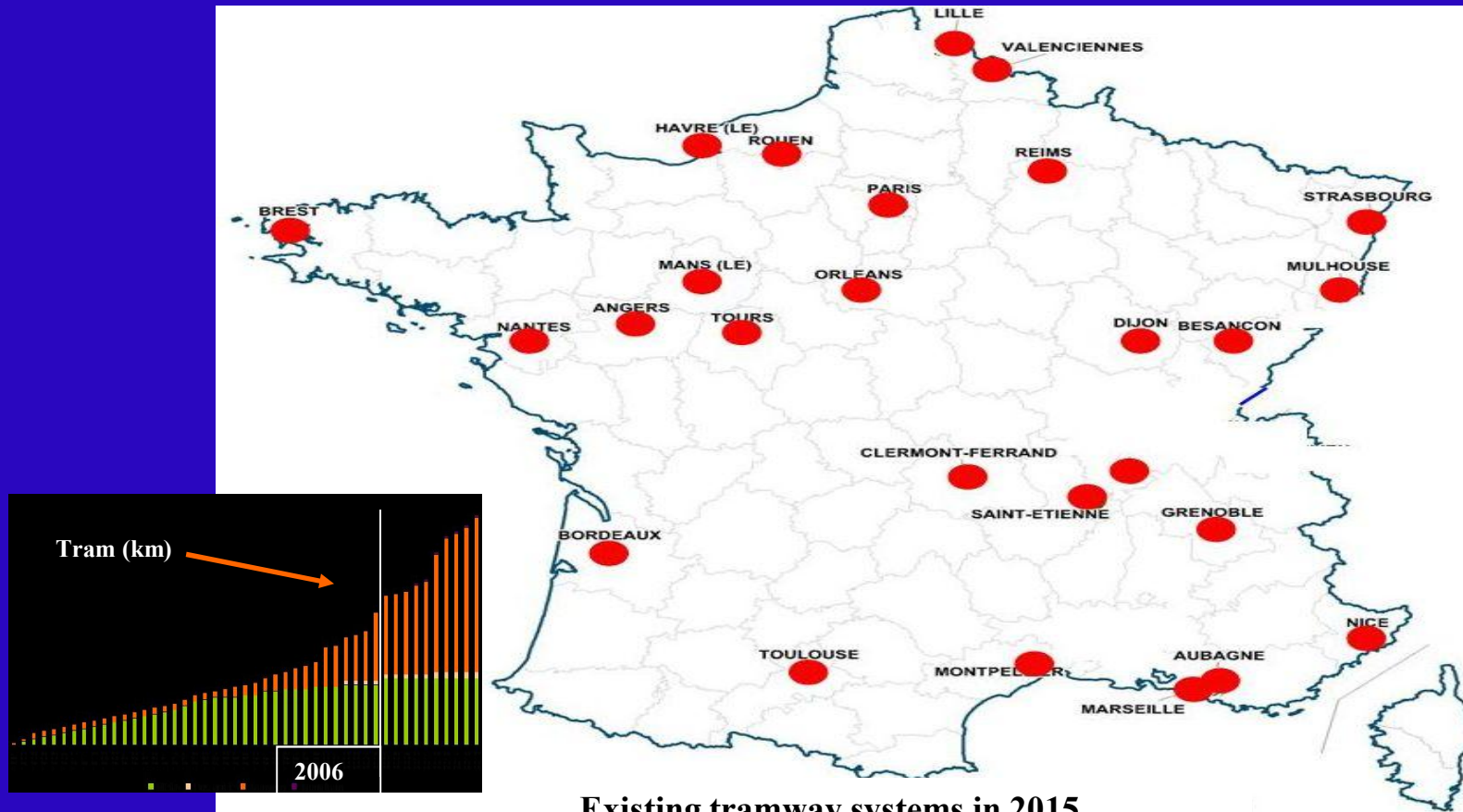
Status of the zone or road	 pedestrian area	 pedestrian-priority zone	 30 zone	 urban area	 70 section
Speed limit	Walking pace	20 km/h	30 km/h	50 km/h	70 km/h
Balance between local life / traffic function	 Local life	 Local life	 Local life	 Local life	 Local life
% of the road network desired in the long term	0 % - 10 %	2 % - 15 %	60 % - 90 %	10 % - 40 %	0 % - 5 %

Decree 2008-754, modifying the Road code (30/08/2004)

- **Pedestrian priority zone** : < “meeting zone” > *no particular limitation of traffic, but sharing without any segregation and avoid transit (pass through)*
- **Pedestrian area** : (strong) limitation of cars
- *In both cases :*
 - Cyclists allowed
 - **Public transport allowed, as they participate in serving the zone**

Why make streetcars cross pedestrian zones !

In the meantime, France re-discovers streetcars...



Existing tramway systems in 2015

Why make streetcars cross pedestrian zones !

Several causes, in relation with those 2 trends:

- radial structure of most of tram networks, serving downtown
 - streetcars go and meet existing pedestrian areas
- extension of pedestrian areas in hearts of towns
 - pedestrians areas cover existing tramway paths
- insertion of tramways in (more & more) dense urban context
 - remove some functions in narrow streets :
car now is the logical choice !

but not always in the past... =>



Lyon (Year 2000)

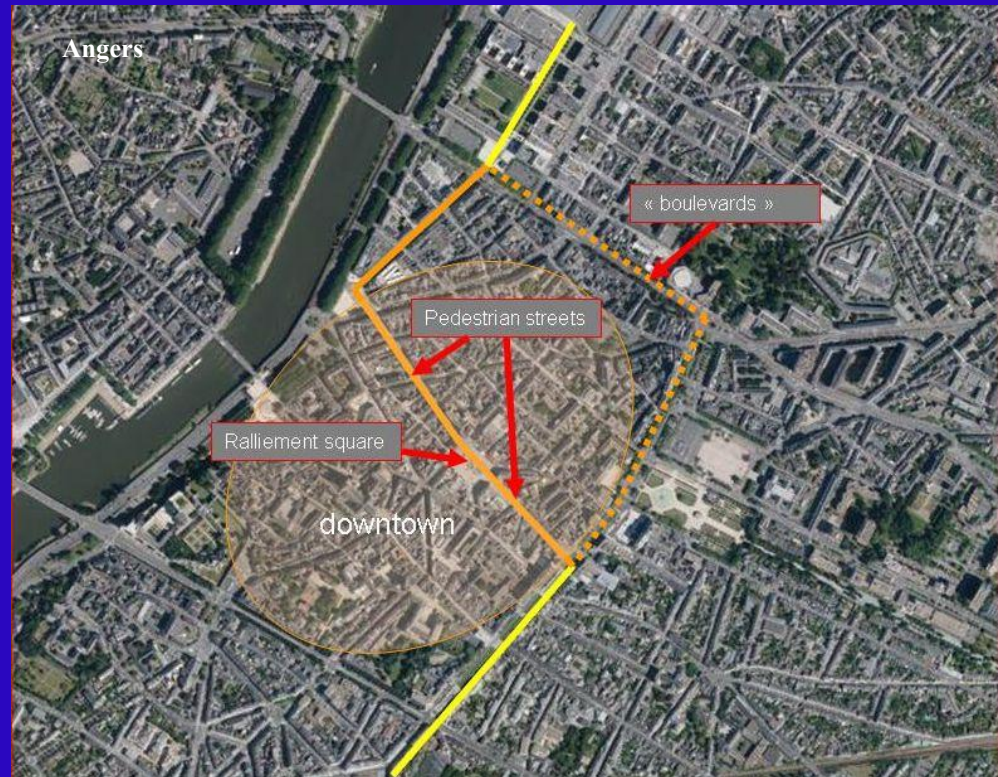
Why make streetcars cross pedestrian zones !

Tramway lines in downtown areas

- Skirt around or cross pedestrian zones ?

a technical and political choice !

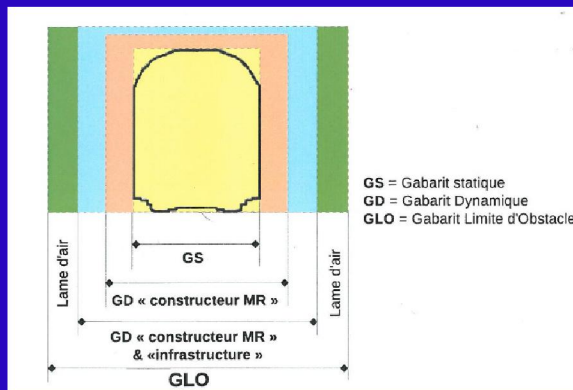
- level of service
- impact on local life
- residents' wishes
- symbolic locations



Key factors for a good insertion

The regulatory context : tramway and road rules

- *tram* has **not to respect general rules** of the “Road code”
 - ➔ **streetcars** do **not** have to yield priority to pedestrians
 - ➔ **all users**, including pedestrians **have to let a free path** for upcoming **tramways**
- ➔ adapt the layout to make the tram perceptible



**Materialization of
the Gauge limit («
GLO »)**



Key factors for a good insertion

→ adapt the layout to make the tram perceptible

→ choice of contrasting materials

→ borders and whole surface of the GLO



→ facilitate pedestrians' life

(must easily walk/get out of the GLO)

→ no too "sealed" separating device

→ comfortable walking facilities out of GLO

→ sufficient width

→ remove obstacles



Key factors for a good insertion

- adapt the operating conditions and ways
reduction of speed and high concentration of drivers...
to be balanced by
 - limited length of such sections
 - simplification of their functioning
(pure pedestrian areas are preferable to “meeting zones”)
 - right of way and efficient priority management out of these zones
- handle an active traffic management in and around pedestrian zones
 - access control device (but maintenance issues)
 - traffic plans to minimize car flows

Key factors for a good insertion

- adapt the operating conditions and ways
 - set up running on single tracks to keep enough places for pedestrians
 - one way track with return on a parallel street
 - alternate running in one street
- Set up simplified maneuvers zones



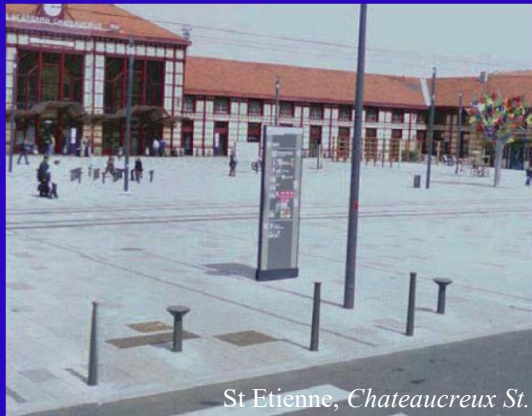
Relevant locations for cohabitation between streetcars and pedestrians

- Major historical roads in commercial and service districts



Relevant locations for cohabitation between streetcars and pedestrians

- Forecourts of railway stations



Relevant locations for cohabitation between streetcars and pedestrians

- Multi-modal connections centers



Relevant locations for cohabitation between streetcars and pedestrians

- Downtown plazas



Relevant locations for cohabitation between streetcars and pedestrians

- Narrow streets



Relevant locations for cohabitation between streetcars and pedestrians

- Lateral location of tracks in wide streets



Nantes, 50 otages Avenue

Advantages and limits

→ Advantages

- good image of the tram (/ Bus)
 - less noisy and polluting
 - soft and friendly
 - smooth running
- calmed traffic
 - bicycles moderated by pedestrians
 - few motorized traffic
 - low speed for all



⇒ No big safety issue

→ Limits

- high frequency of tramways
 - a wall in the street
 - risky behaviors
 - bad regularity



- Any question ?...



Thank you for listening

dominique.bertrand@cerema.fr