

# Innovative public and private cooperation for enhanced Urban Mobility

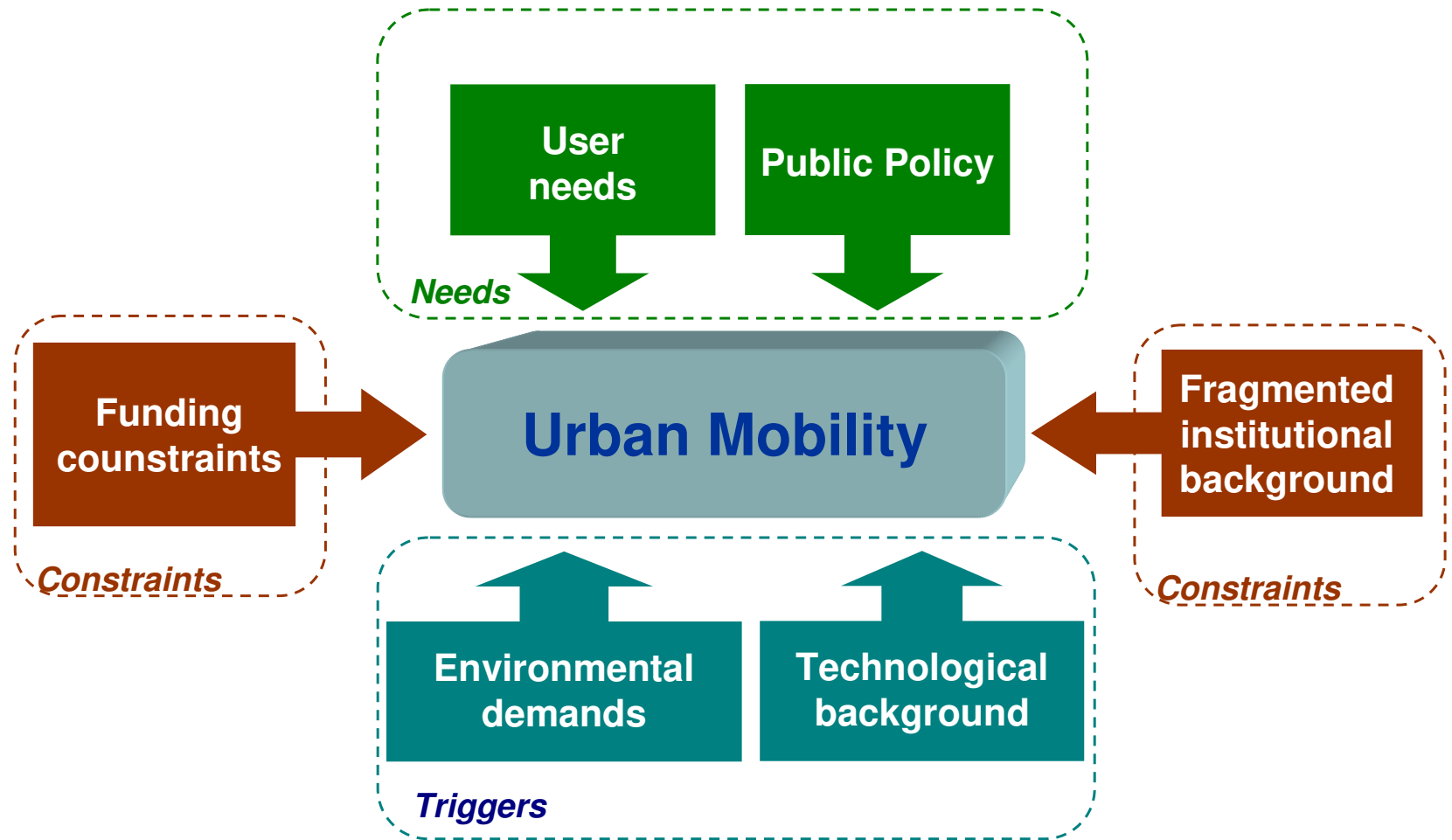
## Grand Lyon experience

### Vienna delegation – 02/10/2015

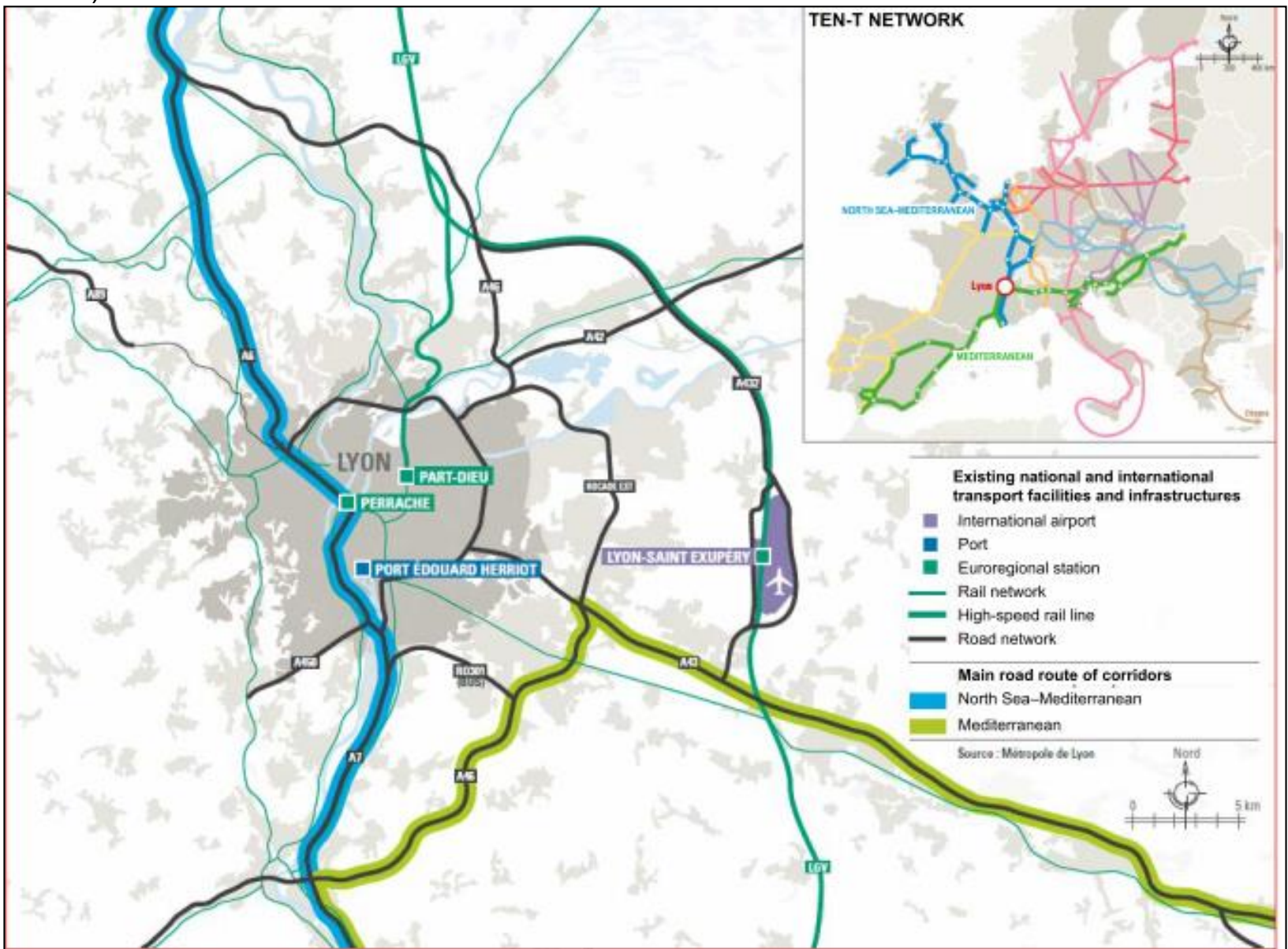
**OPTIMOD** LYON  
**OPTI** CITIES



## Urban mobility context

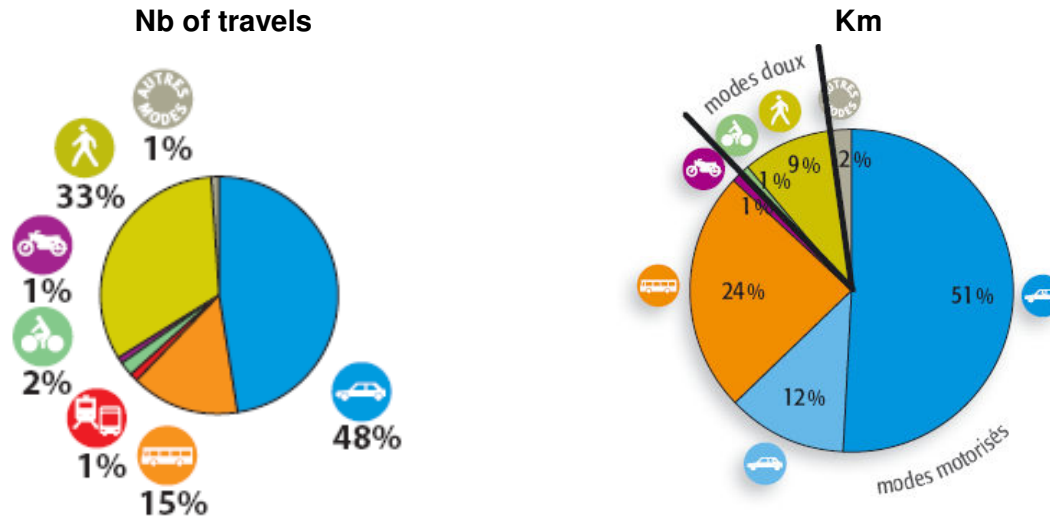


■ **Lyon, an important european urban node** (but Lyon is much more than the Fourvière tunnel !)



## Lyon area mobility background

- 1.3 Minh, 500 000 cars entering each day in the conurbation



- Some reasons to hope

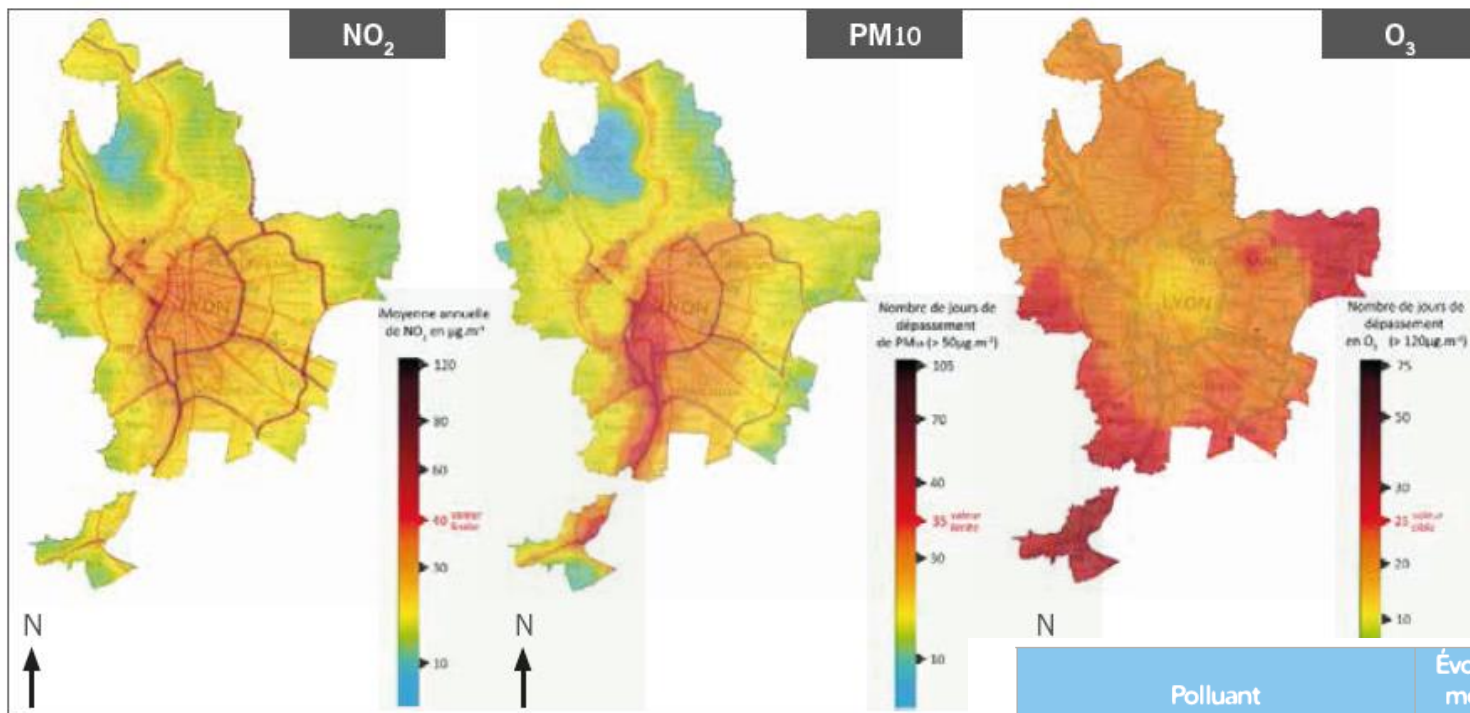
- 4 millions of travels/day : half by car, **occupancy rate for H/W =1**
- 58% of travels of 3 km are made by car**
- In 10 years, decrease of 20% of road traffic within the ring in Lyon, increase of 10% to access the conurbation (traffic volume to access to the city center remains steady), decrease of 13% of use of parking lots

- A quite common situation in European cities

## Lyon air quality background

### Air quality evolution

- We still have a problem with Nox and PMx due to diesel motors



Polluant	Évolution des concentrations mesurées aux stations fixes (2004–2013)
Dioxyde d'azote ( $\text{NO}_2$ )	-19%
Particules $\text{PM}_{10}$	-22%
Particules $\text{PM}_{2,5}$	-23%
Dioxyde de soufre ( $\text{SO}_2$ )	-83%
Ozone ( $\text{O}_3$ )	0%
Benzo(a)pyrène (BaP)	-48%

- **Increase of road traffic to access the city center, outside the ringroad**
- **Urban cars with 2l/100 km and 0g de CO2 available in 2020**
  - The individual reasoning against excessive use of car (cost+pollution) will disappear: car use will be as expensive for the user than PT, even though a car whatever the fuel occupies 10m<sup>2</sup>
- **Decrease of -45% in less than 6 months of fuel tarif inducing an increase of car use : + 8% of petrol fuel consuming between dec 2013 and dec 2014 in France**

**→ Coordinated Traffic management between structuring and urban networks is a key stakes for European cities in the coming decade: from patchwork to network**

## Mobility Policy objectives

- **Ensure accessibility of the towns and their economic development, ease the move of persons and goods,**
- **Reduce environmental and socio-economical impacts of transport**
- **Re-conquer public space from private car use to eco-friendly modes and urban planning**

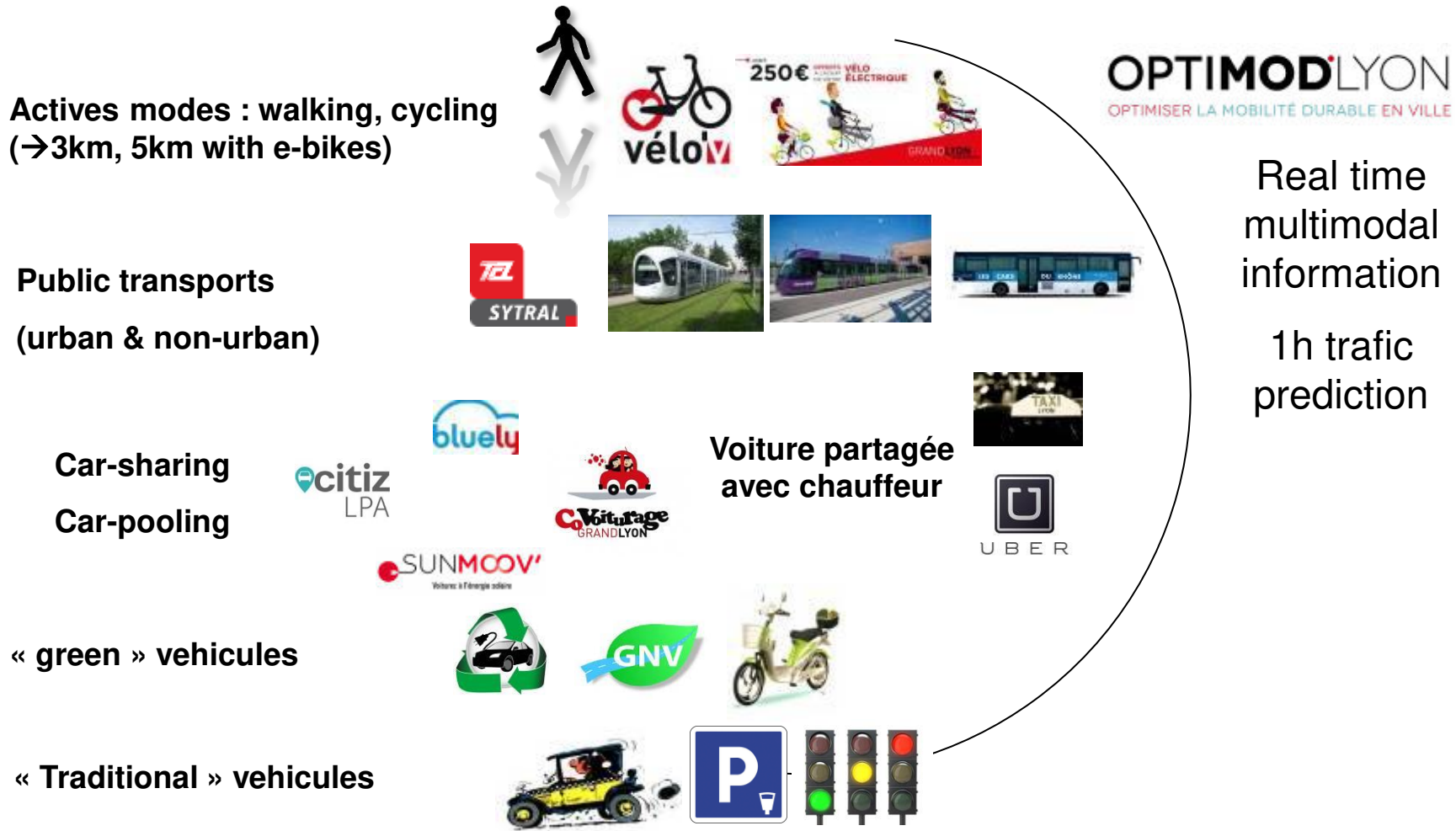
**Within a context of decrease of public budgets**



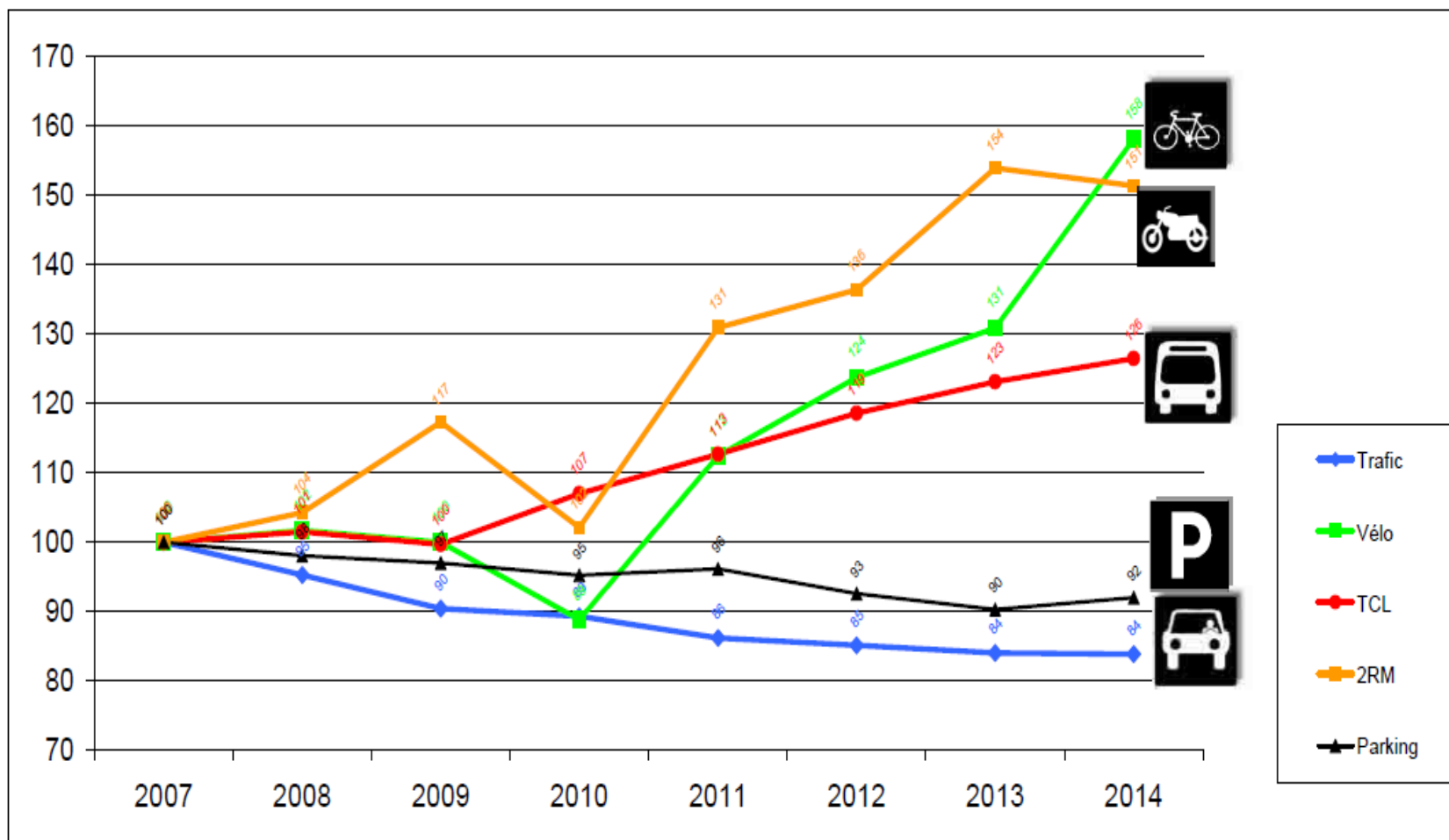
# The multimodal facilities panel

*Multiply alternatives to « solo » car*

*A « package of services » result of prioritizing modes :*



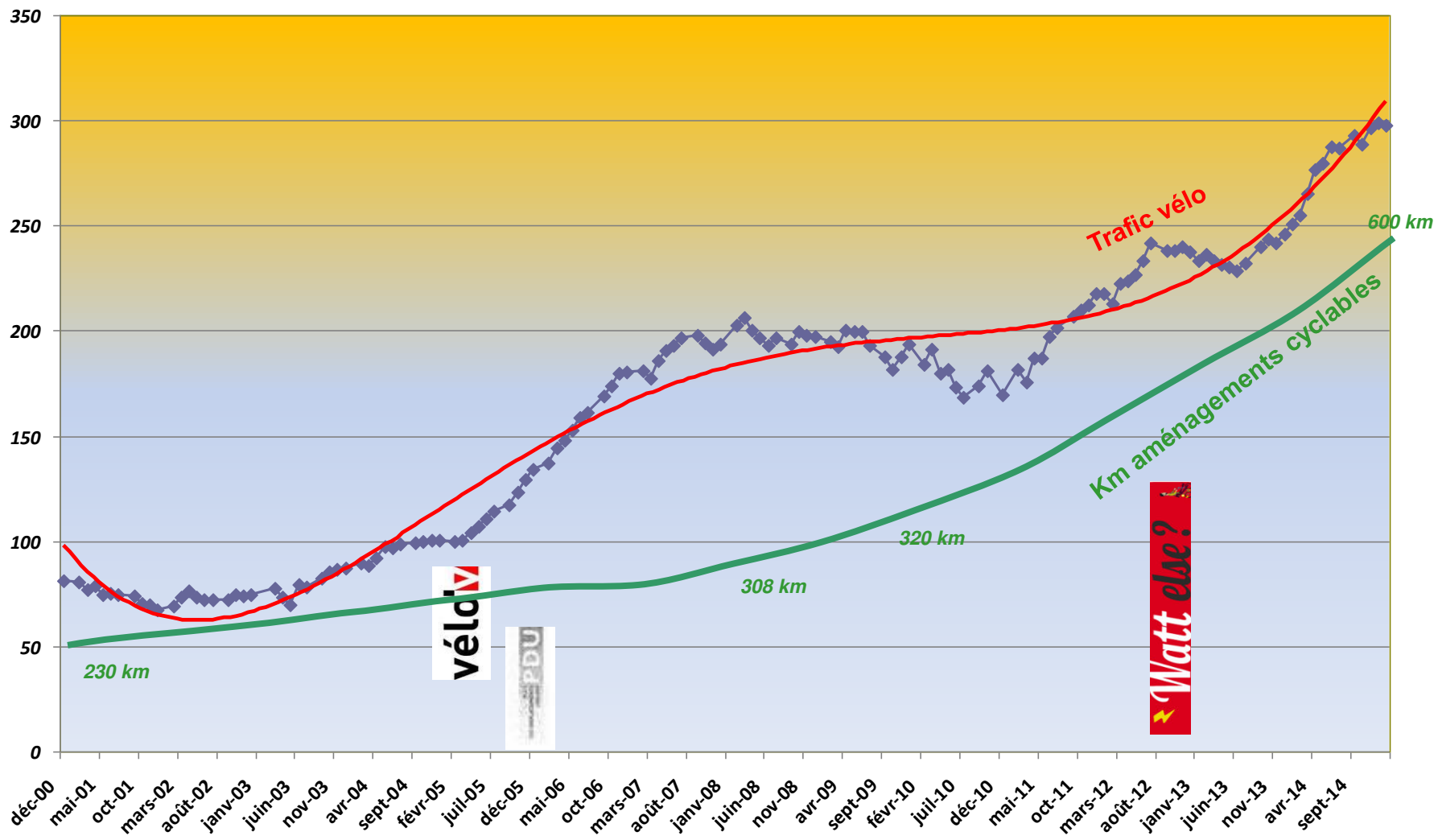
# Results evaluation



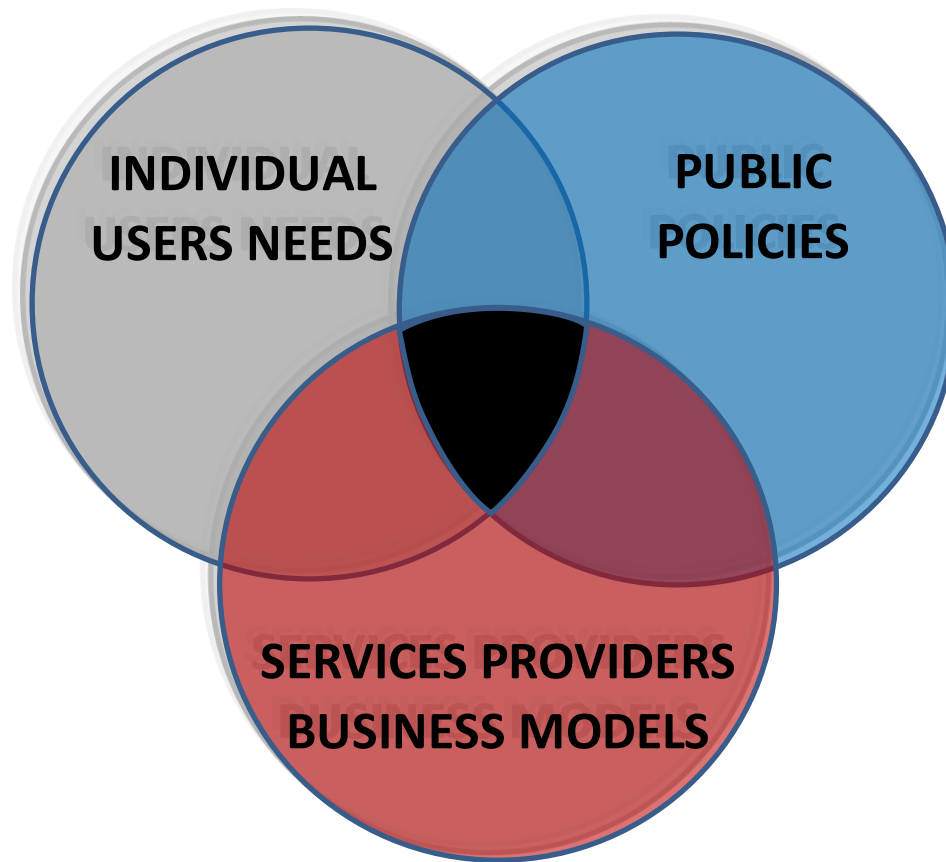
## Indicateur « multimodal » - base 100 en 2007

- Trafic automobile : débit annuel cumulé sur 235 boucles CRITER (intra périphérique)
- Vélo : cumul annuel des 16 points de comptage mensuel
- TCL : cumul annuel des validations tickets TCL (manque données 2012)
- 2RM : cumul annuel péage BPNL (corrigé 2012 avec comptages mensuels SD)

# Focus on bike usage



## User needs, policy needs, business needs



## The 4 pillars of an urban mobility policy

### ■ Build credible alternatives to excessive use of individual car use : modal shift must be possible

- In France, very good transport infrastructures but more and more difficult to build: regulations, funding, ... Years 1970 → 2000
- Optimal operation of infrastructure : use of ICT / ITS Years 1990 → ....
- New transport services : freebike sharing services, carsharing, carpooling, ... years 2005→...

### ■ Move from a « silo » logic to an integrated logic :

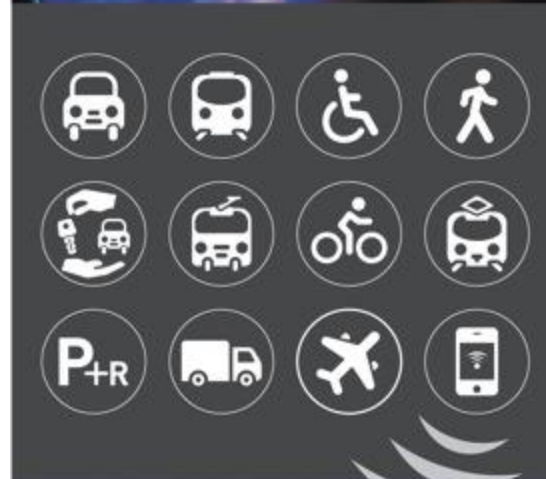


### ■ Connect transport modes : Inform users

### ■ Set up an integrated mobility funding policy

## Multimodal Information : Key points

- Today a business model mainly based on public funds
  - Usually lack of georgaphical, modal and time completness: poor value
  - The users consider travel information as granted for free but things could evolved
- Saying people « it's bad to use your car » is ineffective: We are all in turn users of car, PT, bike, .. depending on our travel needs
  - Instead make modal shift attractive : **provide objective information**
  - Ensure information on all modes road traffic included: car use is the target !
  - Modal shift will happen through all modes and services, not only PT
- Inform users about real travel time and users costs of the different mobility solutions (today travel time by car is often underestimated by the solutions providers)
- Offer a real choice : provide different solutions to go from A to B



# OPTIMOD<sup>LYON</sup>

## An Innovation project

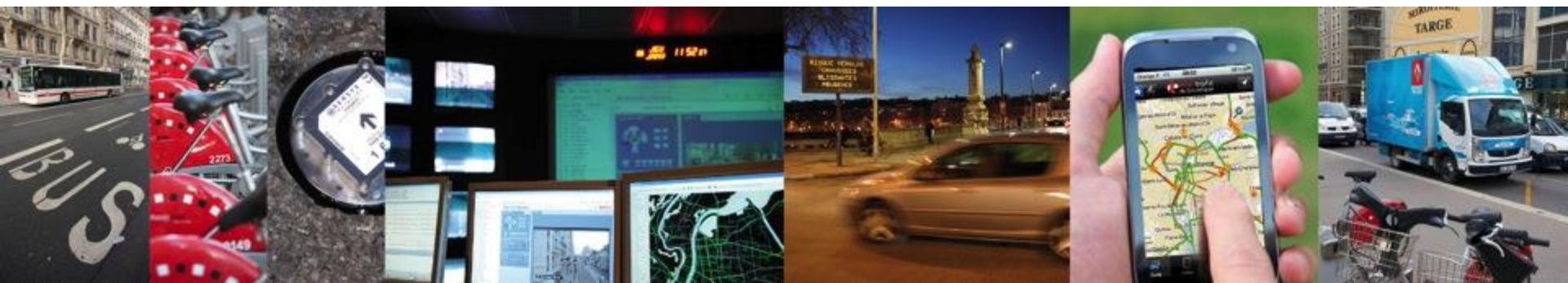
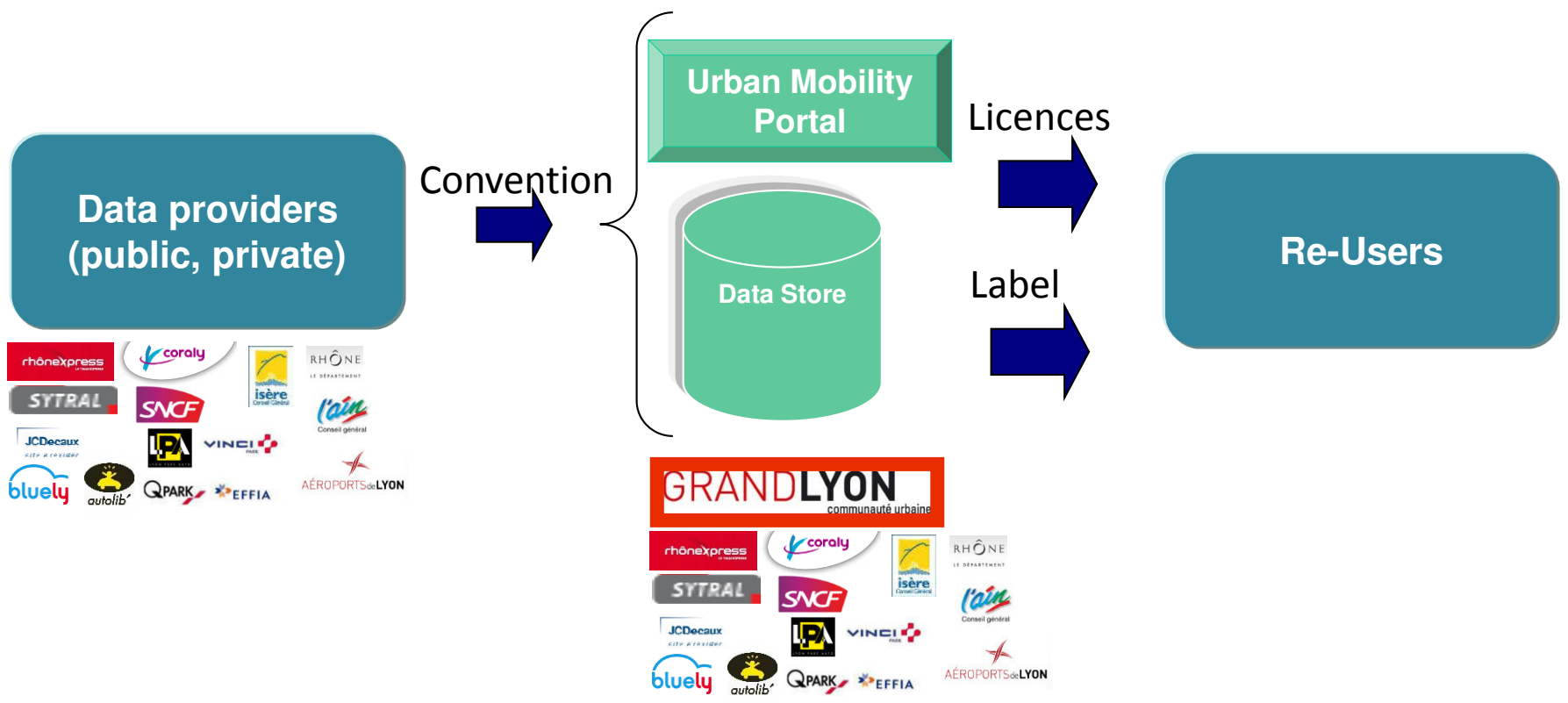
- Initiated and coordinated by Grand Lyon
- Gathering 13 partners, both public and private
  - **2 public stakeholder** : Le Grand Lyon et Lyon City
  - **8 companies**: Renault Trucks, IBM, Orange, CityWay, Phoenix ISI, Parkeon, Autoroutes Trafic, Geoloc Systems
  - **3 research institutes** : LET – Lyon II, CETE de l'Est, LIRIS - Lyon I
- A project aiming at developing high level information services using mobility data
- Objective: support mobility policy and an open market for business development around urban ITS
- 3 years project (2011-2014), a budget of 7 M€, cofinanced by ADEME/National agency « Investissements d'avenir »



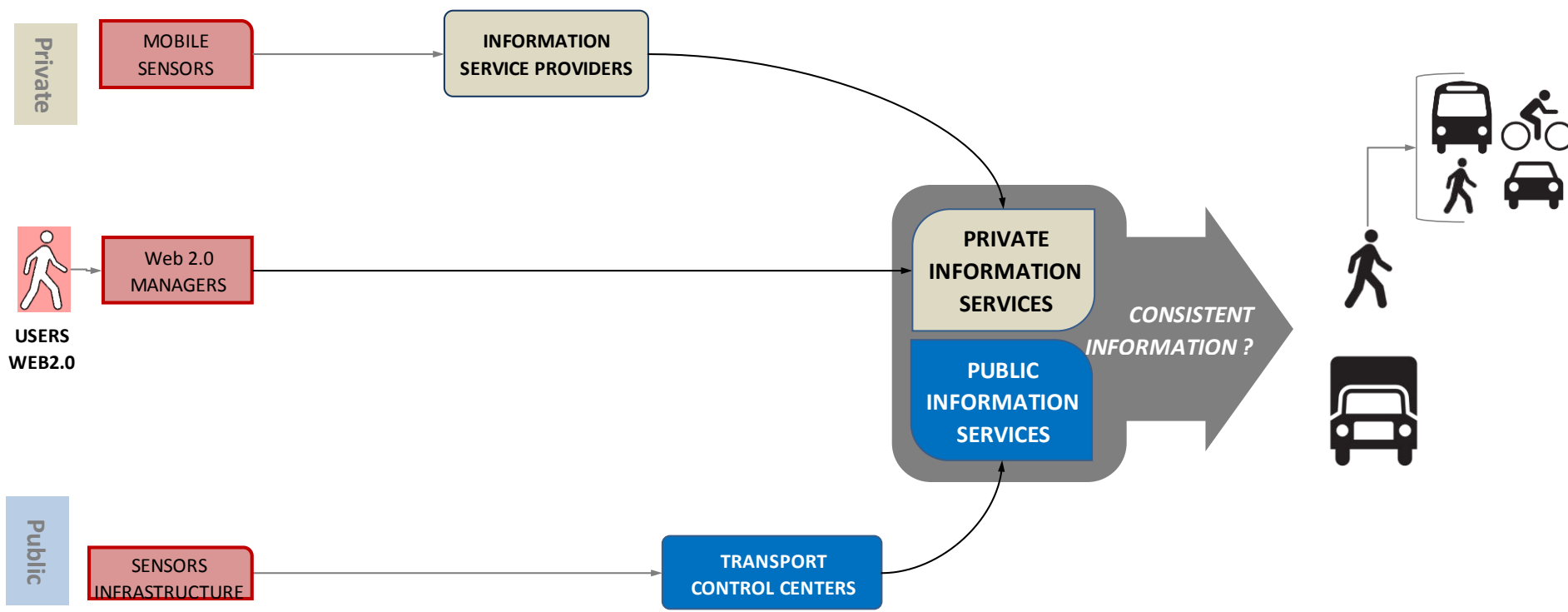
- **Set up high level services** for travellers and urban logistics, addressing user needs and urban mobility public policy,
- **Support mobility policy and an open market for business development around urban ITS,** through a contractual framework between public – private actors
- **Define standard and architecture to foster interoperability among cities** and among travel modes



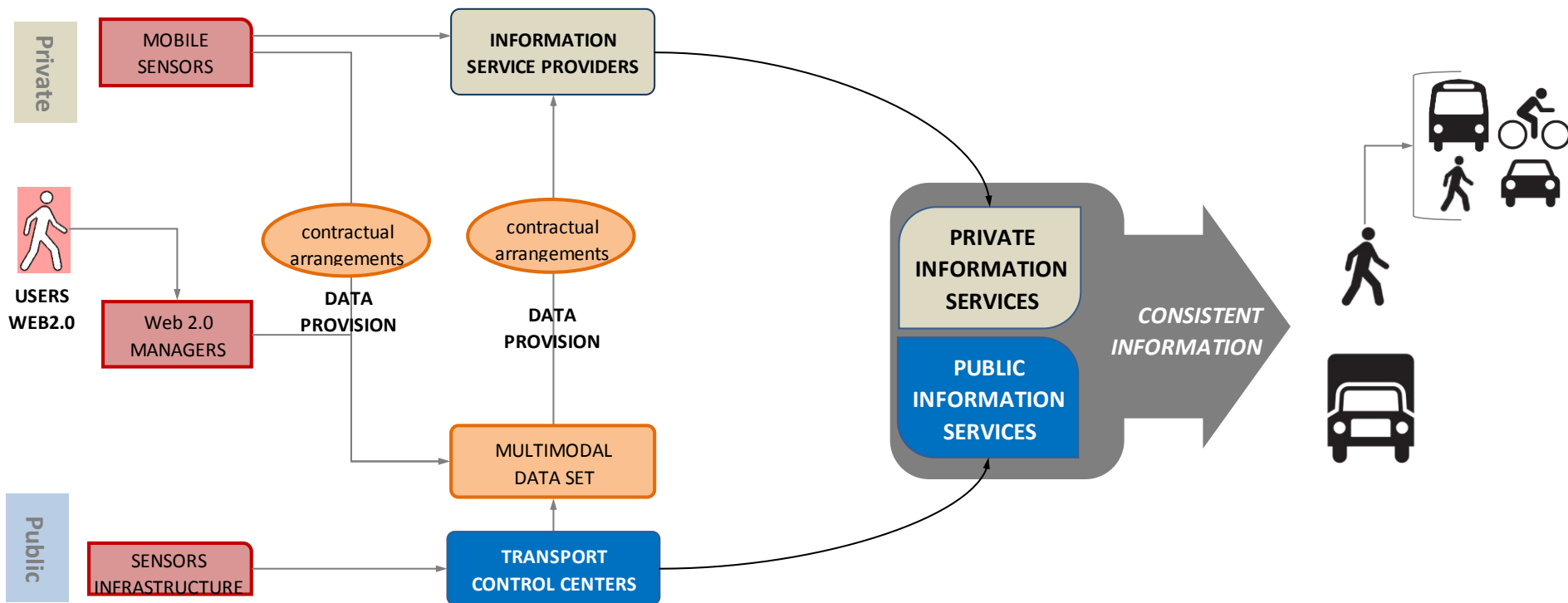
# General contractual architecture



## Multimodal information : current situation

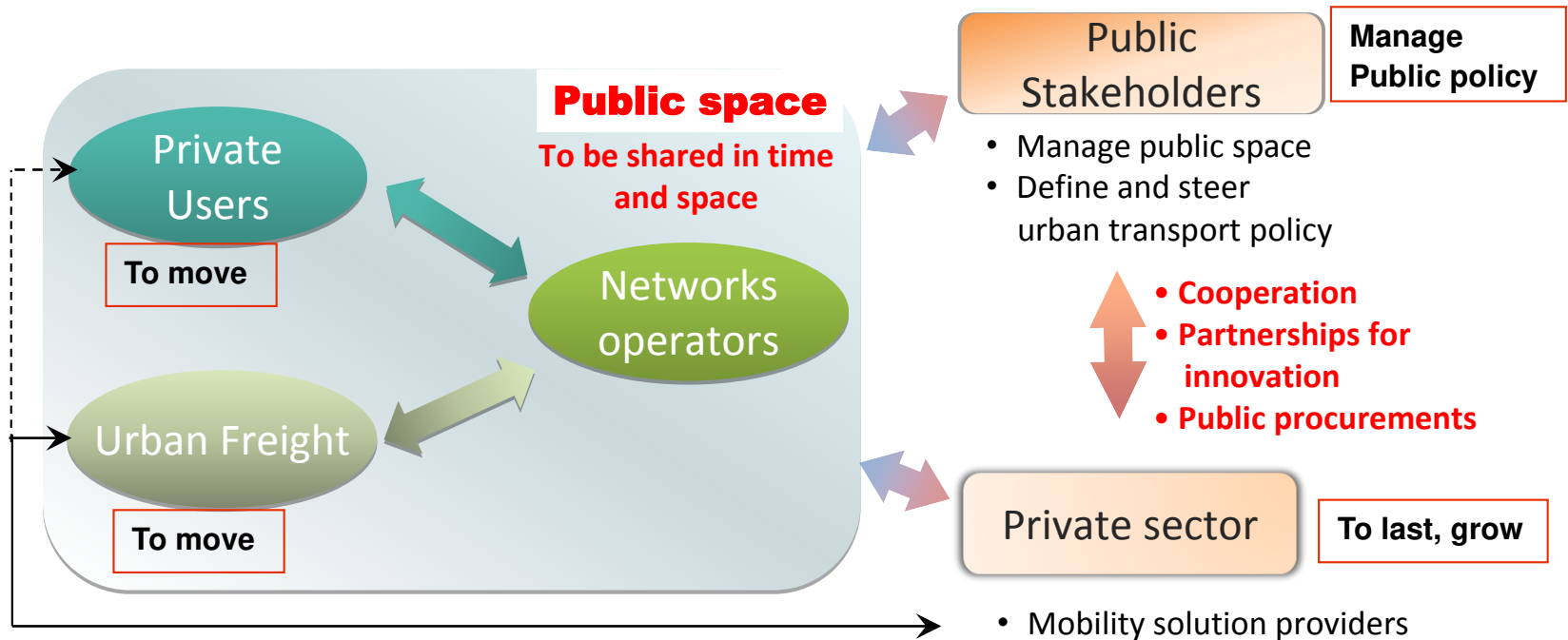


# Multimodal information : what is building Optimod'Lyon



## Finding the best combination of public and private actors assets

- **Share data : we have a lack of data. We are weaker individually, much stronger gathered.**
- **Build new business models autonomous from public funding**
- **Ensure compliancy between private services and public policy**
- **Avoid monopolistic situation**



## Grand Lyon policy on data availability

- **Our objectives**
  - **Encourage deployment of high quality level services, that is the only way to have services funded by the users**
  - **Share public and private data, to ensure a better quality and completeness of the data (geographic, per modes)**
  - **Ensure consistency between private services and public policy on mobility**
  - **Avoid monopolistic situation that will destroy value**
  
- **We have thus build 3 scenarii of public data availability to support services development. The rule is free provision of data.**
  - **Open data → no control, no counterparts. 99% of the data**
  - **Free data provision with re-user identification and reuse control : Ensure consistency with public policy, manage side effects on public activities (e.g. parkings operation). This allows to manage wrong re-use services without any effect on good ones**
  - **Data provision with fee and reuse control : Avoid monopolistic situation. Most of the time the fee will be zero unless we have a monopolistic situation.**

# OPTICITIES

OPTIMISE SUSTAINABLE MOBILITY IN EUROPEAN CITIES

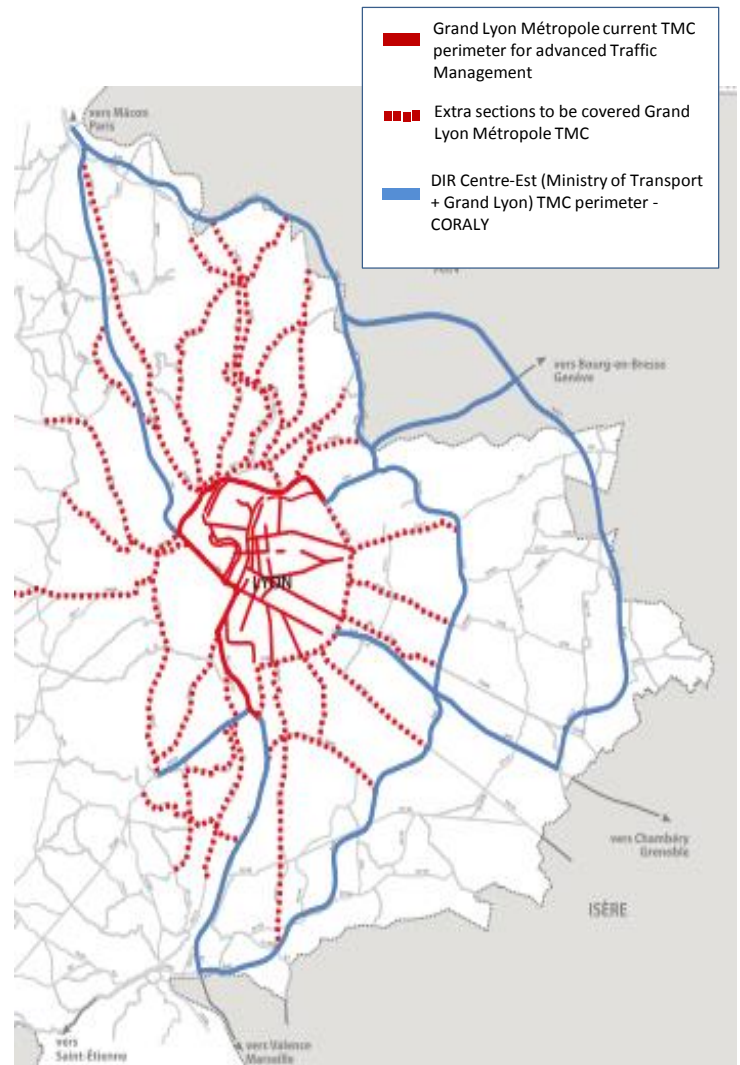
- Be as close as possible to real time traffic condition, and use 1h traffic prediction to anticipate congestion: potential gains of 10 - 20% of road capacity, giving margins for better use of public space

## TIMELY project

- Coordinate road networks management to optimise them in time and space, especially for last miles and cities gateways
- Deploy Multimodal management with real time info on P+R, real time travel times on different modes, ...



- ITS have an important potential to improve the current mobility systems and give us margins. The real question for urban mobility policy is how do we allocate these margins ?



## Example of public / private cooperation

- **Car sharing with Bolloré: BlueLy service set up without public funding**
- **Multimodal information with CityWay: Urban navigator (all modes, real time, anywhere, anytime for all) launched end of 2014**
- **Bicycle Navigator**
- **Freight navigator**
- **... and other to comes**
- **Role of Public : data provision (for free), strengthen the environment in favour of business (label, communication support, decrease/withdraw of public information services)**
- **Role of Private : develop and sell the services**

## Conclusions

- Numerous initiatives, important changes to come (energy prices increase, public budget decrease, technological innovation, ...)
- Paradigm changes in terms of mobility (speed is no more a priority) that will have a strong impact on our mobility, daily life
- On the mobility field, public actors will always play a key role (space management, traffic control, ...), it doesn't mean they have to do everything.
- Cooperation between public and private sector is indeed very much needed, to ensure a calm mobility and build smart cities
- Yes private business models are possible, if public and private create an adapted environment for that



**THANKS FOR YOUR ATTENTION !**

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