VIEWPOINT ON PARIS REGION SITUATION

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Direction de la Prospective

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10% population growth expected to 2040 (INSEE)

Which sustainable transportation solutions for the suburbs?

OUTILINES

One century of urban sprawl

- Paris region in brief
- Growing suburbs
- A region led by its suburbs

Mobility and rush hour

Which solutions for the suburbs?

PARIS REGION IN BRIEF

Current figures

12 000 km² territory

1 300 local authorities

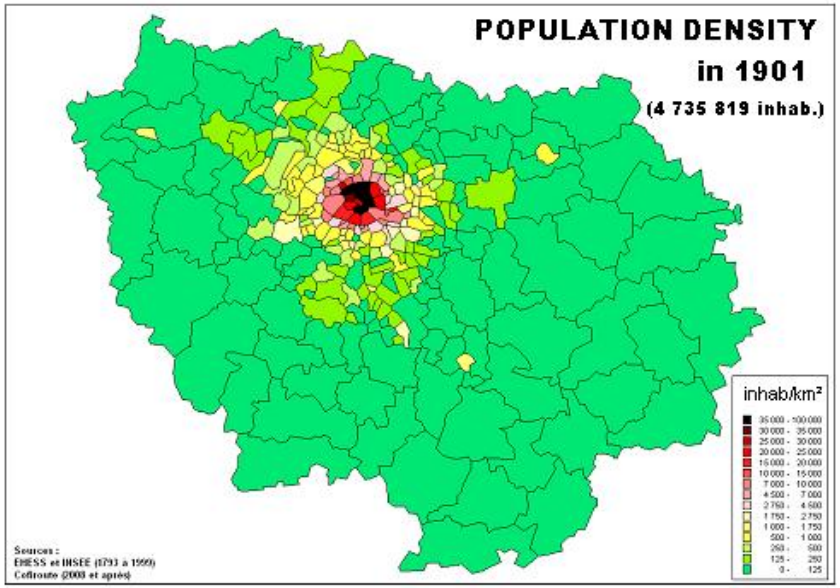
11.6 million inhabitants

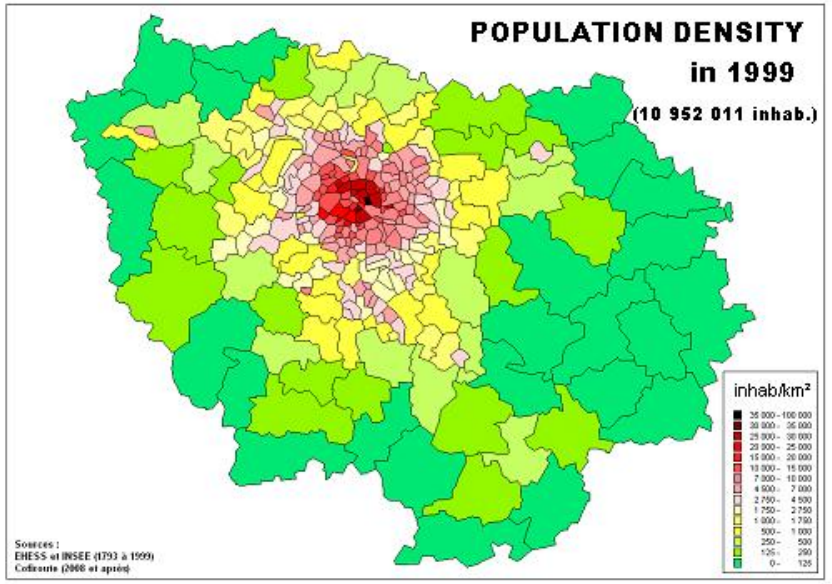
→ around **18%** of France population

5.6 million jobs

→ around **30%** of GDP

GROWING SUBURBS

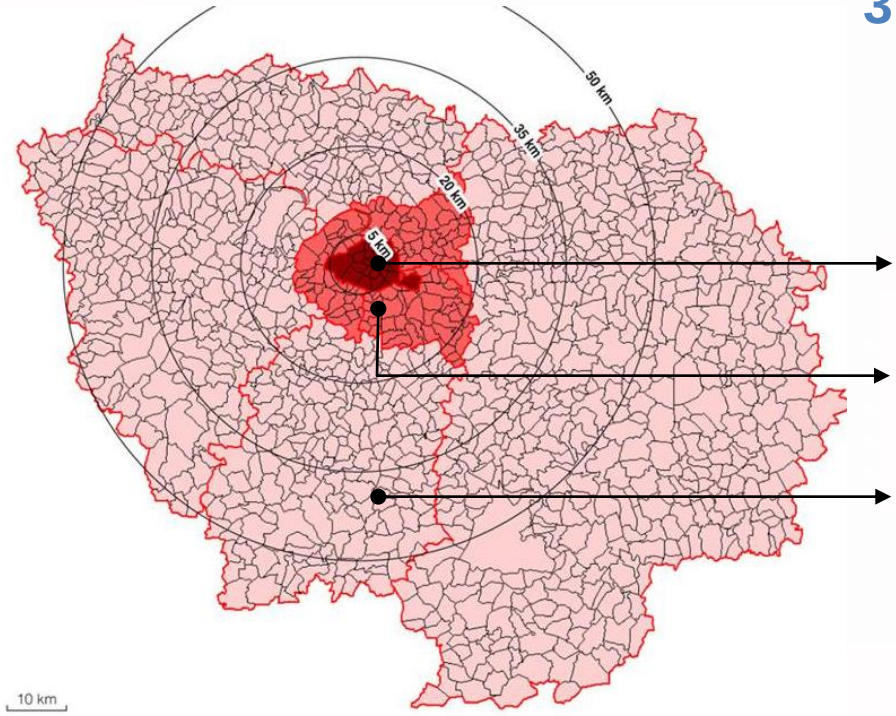




From 5 million inhabitants in 1901

To 11 million inhabitants in 1999

GROWING SUBURBS



3 areas

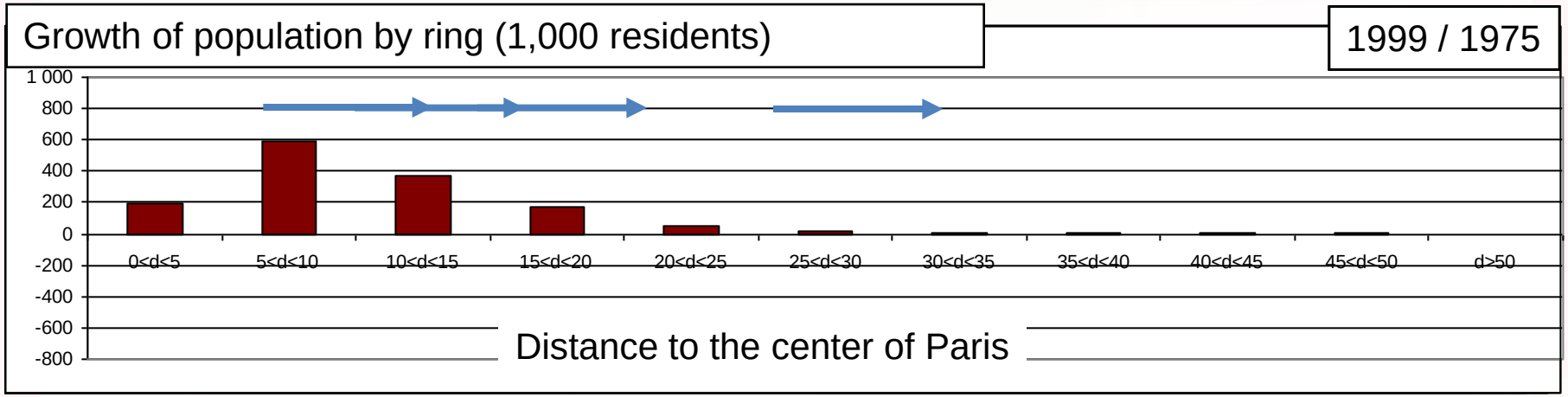
Inner city: 5 km radius,

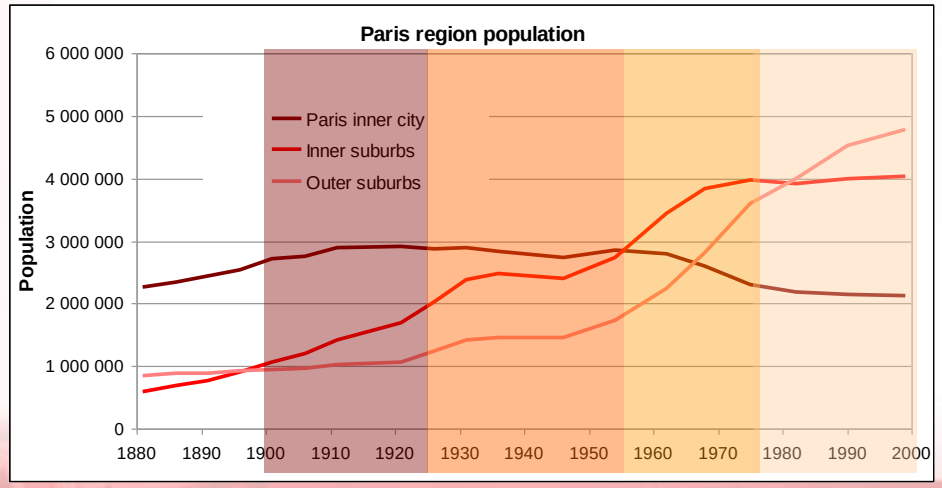
Inner suburbs: 5-15 km radius

Outer suburbs: 15-60 km radius

Focus of this presentation are the Suburbs

GROWING SUBURBS



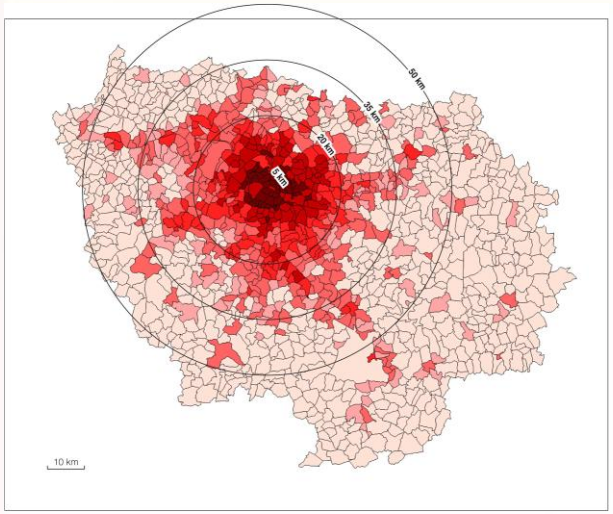


In one century:

- Paris inner city lost **1** million people (**-33%**)

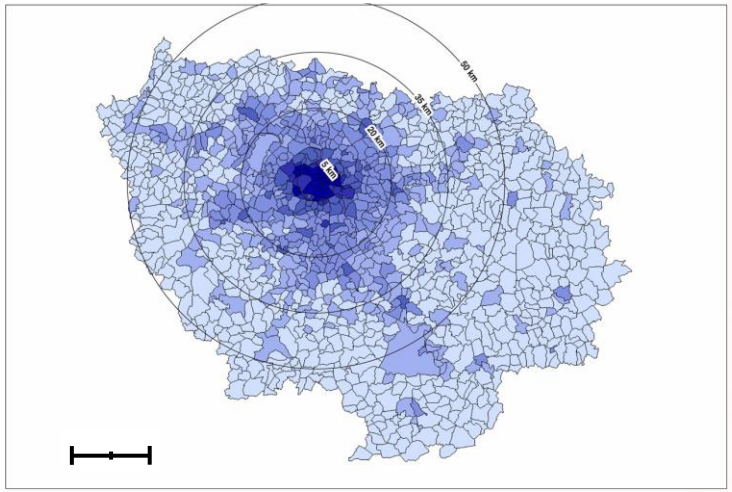
- Suburbs gained **7** million people (**+350%**)

A REGION LED BY ITS SUBURBS



Population

Employment



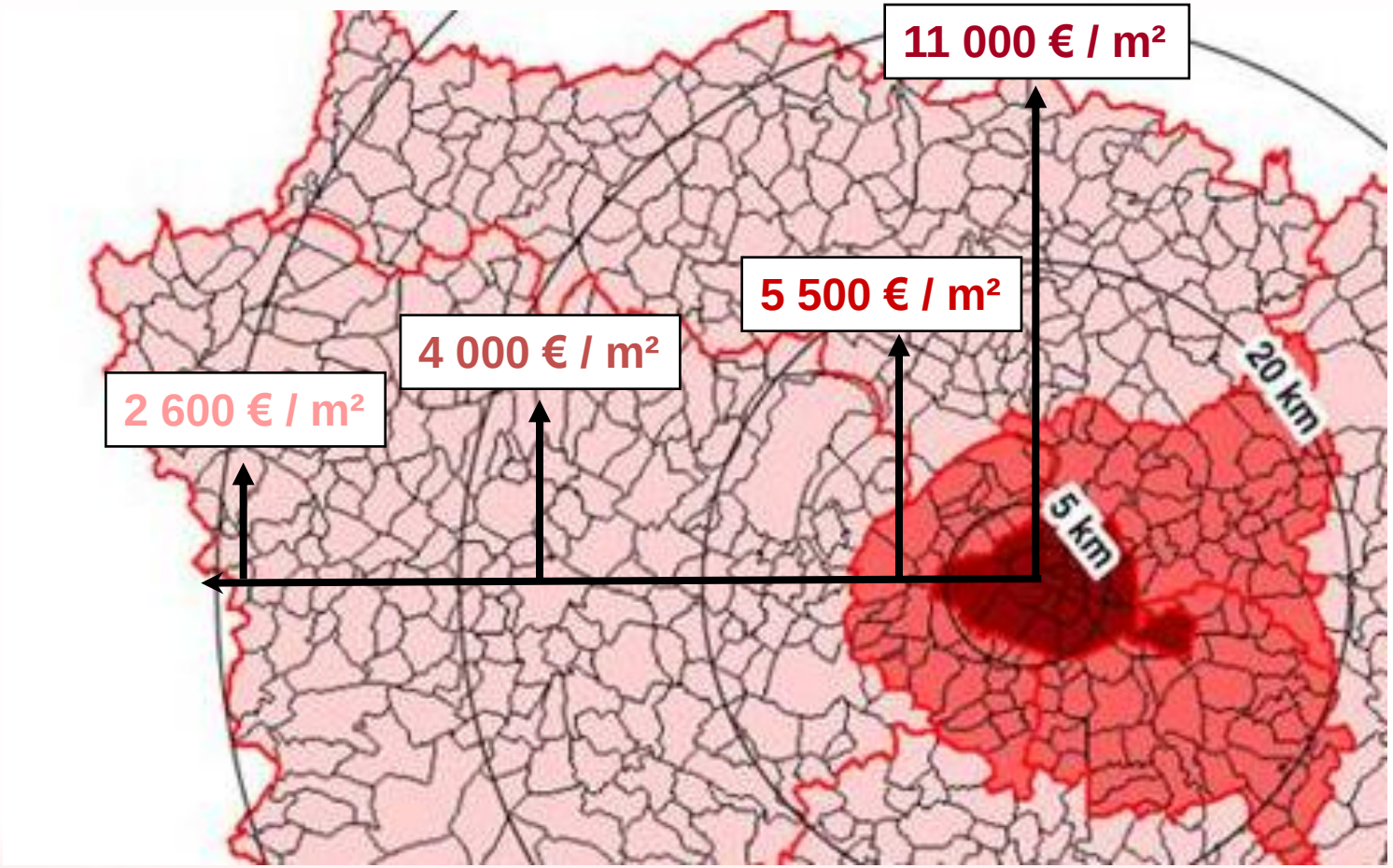
Key figures

80% of population in suburbs

67% of jobs in suburbs

Factor 80 between inner city and suburbs densities

QUEST FOR SQUARE METERS



OUTLINES

One century of urban sprawl

Mobility and rush hour

- Drastic changes within the suburbs
- Mobility statistics at rush hour
- Drastic differences in modal shares
- Efficient mobility system in Paris
- Mobility system of the suburbs

Which solutions for the suburbs

DRASTIC CHANGES WITHIN THE SUBURBS

From 1976 to 2001 :

Population : **+ 10%** by mean for the region

Traveled distances : **+ 50%** by mean for the region

Within outer suburbs since 1976

Population : **+ 30%**

Traveled distances : **+ 110%**

Transport demand within outer suburbs represents **30%** of traveled distances of the region

MOBILITY STATISTICS AT RUSH HOUR

For commuters

Non- motorized modes (walking, cycling)

- **11%** of daily trips
- But only **1%** of traveled distances

Motorized modes

- **9 of 10** daily trips
- about **100 %** of traveled distances

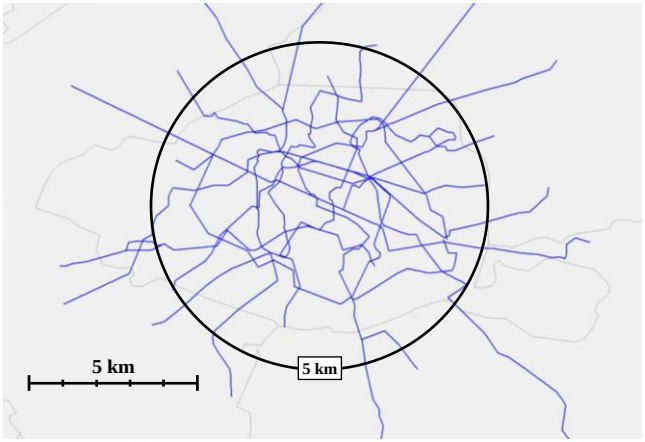
- **30 min** per trip by the road
- **60 min** per trip by the **railway**

- **25%** of home-to-work trips over **1 hour, +40%** since 1976

DRASTIC DIFFERENCES IN MODAL SHARES

Link	Road			Rail	Traveled distances	Densities pers. + jobs / km²
	Bus	Car & Moto	Total		1,000 km	
Paris	14%	31%	45%	**55%**	9 000	**43 000**
Paris - Suburbs	2%	37%	39%	**61%**	50 000	
Suburbs	6%	79%	**85%**	15%	100 000	**600**

EFFICIENT MOBILITY SYSTEM IN PARIS



A multimodal system for high densities

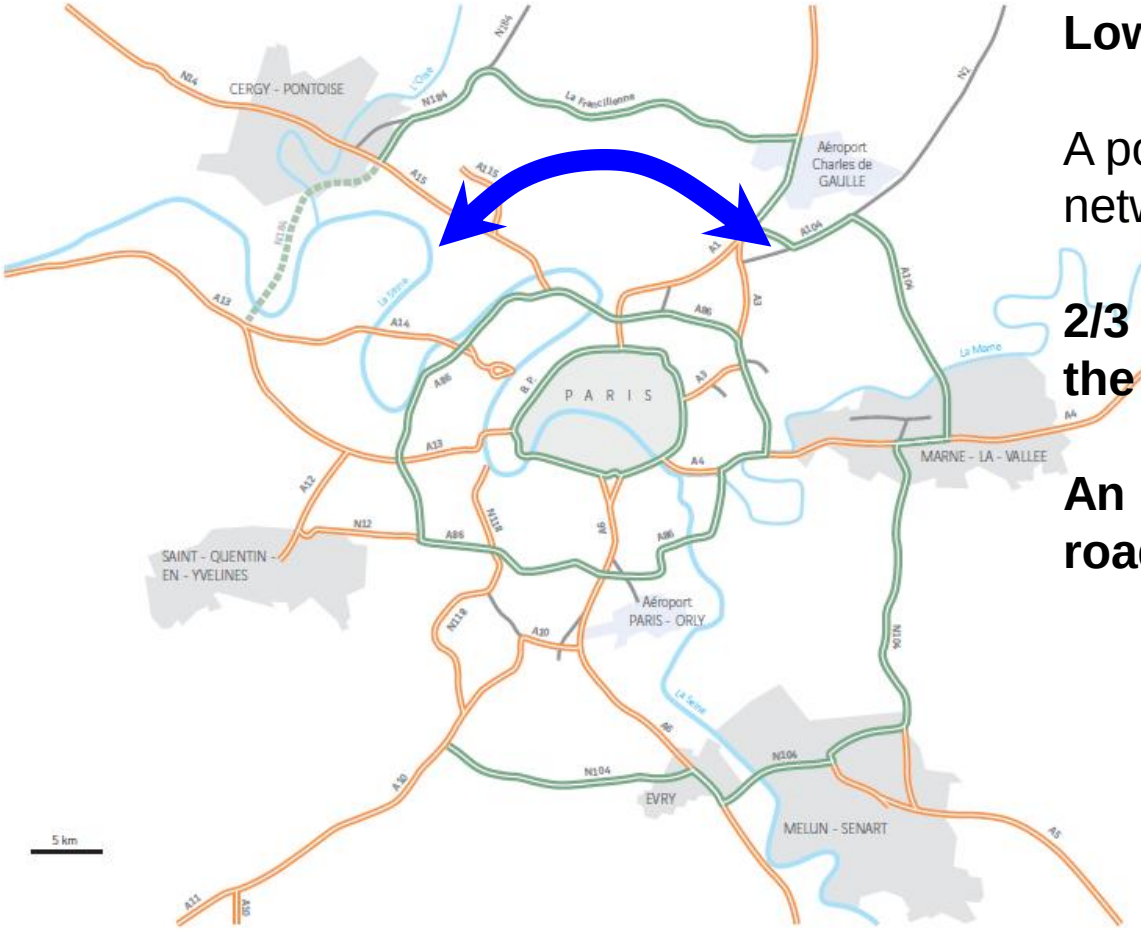
A **dense railway network** accessible from anywhere – less than 5 min walking

Buses services

Bicycles sharing service

Electric vehicles sharing service coming soon

MOBILITY SYSTEM OF THE SUBURBS



Low densities

A poorly accessible radial rail network

2/3 of demand for trips within the suburbs

An easily accessible dense road network

OUTLINES

One century of urban sprawl

Mobility and rush hour

Which solutions for the suburbs

- Greater Paris mass transit project
- The road - a multimodal infrastructure to optimize
- Focus on promising initiatives

WHICH SOLUTIONS FOR THE SUBURBS

Issue

Which transportation system for the suburbs as efficient than the one of Paris inner city ?

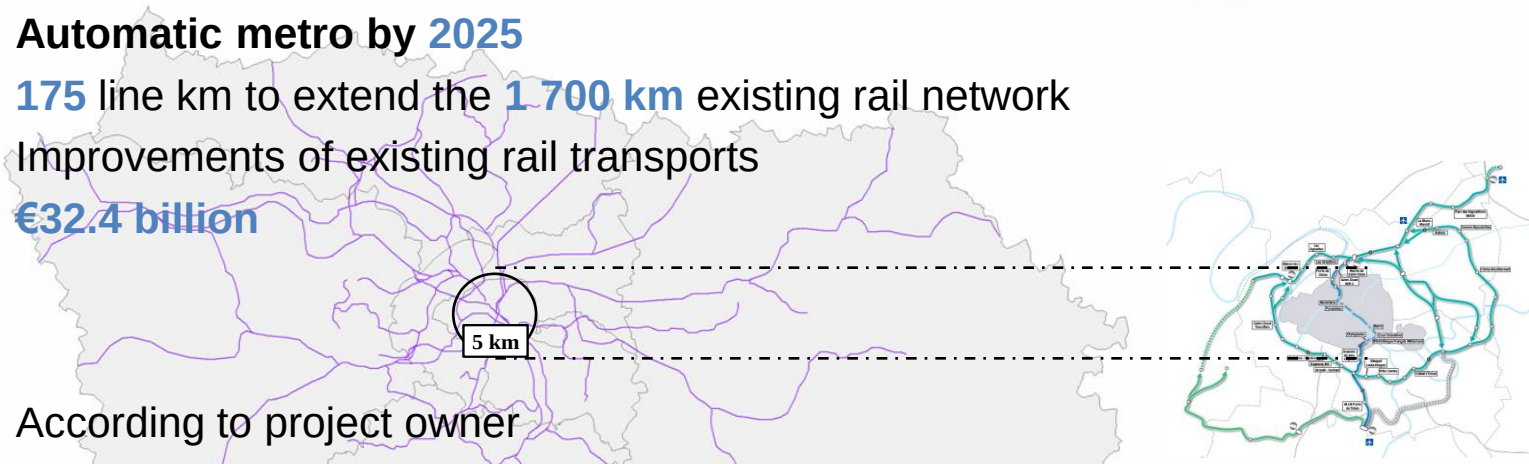
GREATER PARIS MASS TRANSIT PROJECT

Automatic metro by 2025

175 line km to extend the **1 700 km** existing rail network

Improvements of existing rail transports

€32.4 billion



According to project owner

15% of its passengers are expected to come from road traffic

Thus an essential project within inner suburbs to

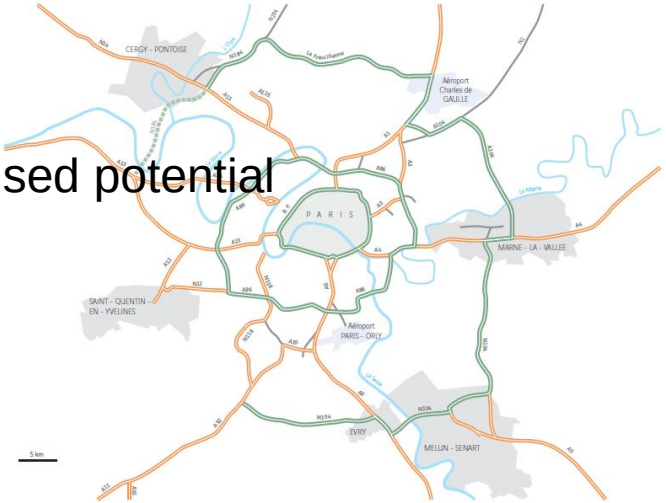
- Reduce congestion in mass transit transport
- Densify rail network

But now how efficiently to

- Reduce congestion on the road
- Connect the suburbs to this future rail mass transit network

THE ROAD - A MULTIMODAL INFRASTRUCTURE TO OPTIMIZE

Paris region road network



- A dense and accessible network with underused potential
- Around **800 km of existing expressways**

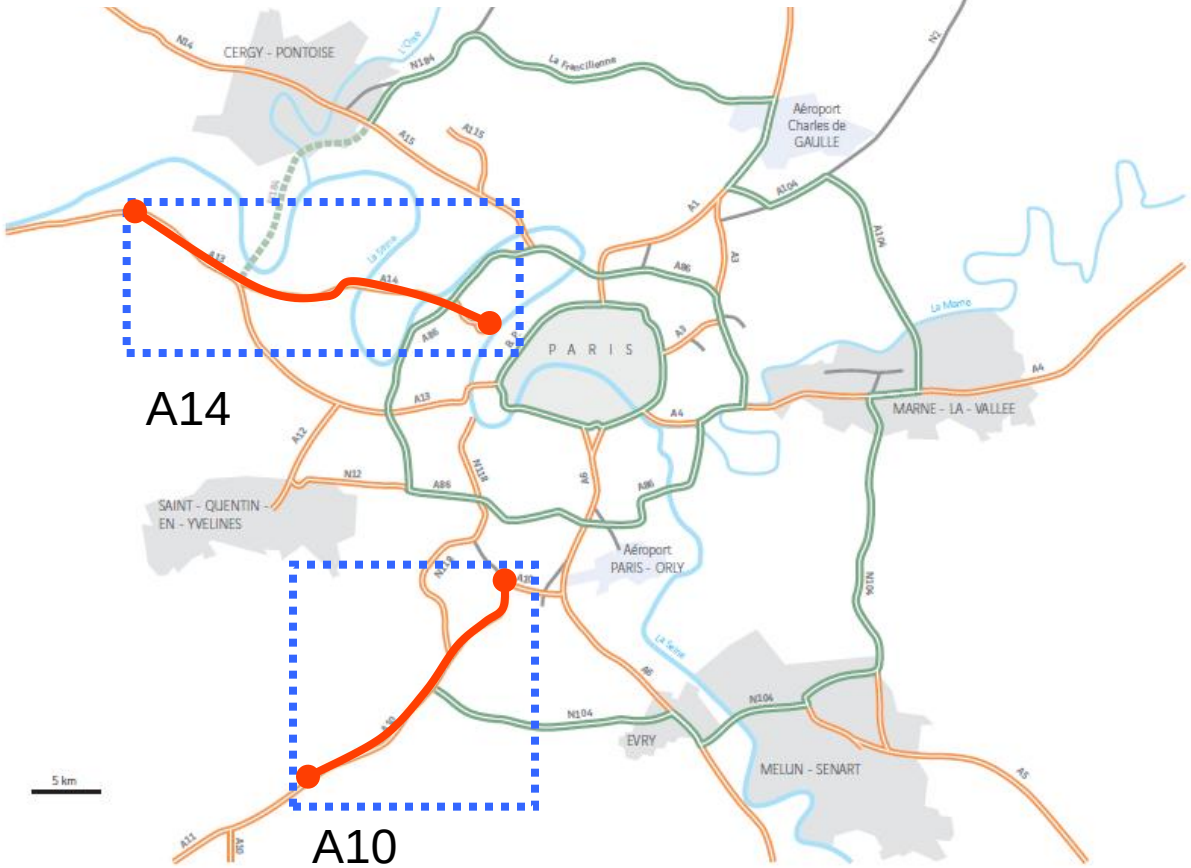
Ideas

- New operating modes to manage capacity at rush hour
- Optimize road capacity by fostering buses services and carpooling

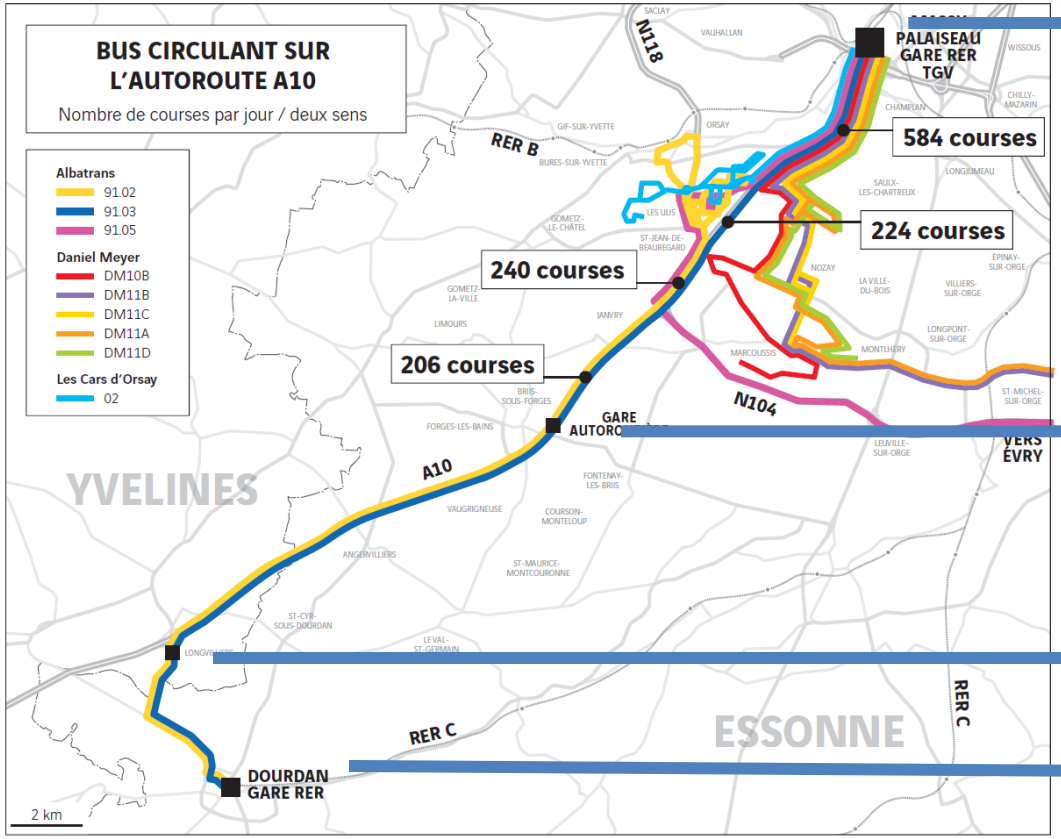
But today buses represent only 5% of traveled distances

FOCUS ON PROMISING INITIATIVES

Buses services initiatives on expressways



FOCUS ON PROMISING INITIATIVES



Rail mass transit network

Road station

Carpooling parking

Rail mass transit network

FOCUS ON PROMISING INITIATIVES

Limits

Buses do not benefit of **an exclusive lane** and thus are **stopped by congestion** at peak hour

CONCLUSION AND OUTLOOKS

International good practices have shown efficiency of managed lanes for high occupancy vehicles

- Buses and carpooling can increase road lane capacity from 1,800 to 4,000 passengers per hour

- Managed lanes for high occupancy vehicles can foster development of these modes

- If needed, at peak hour, high level of service in managed lanes can be preserve by means of a dynamic toll

Such optimized road operation modes have been successful implemented in :

- Canada, Ontario

- Across the United States, Minnesota, California, Washington

- **And Spain, Madrid**

Thank you for your attention

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