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maîtrise d'œuvre urbaine

Les Ateliers Internationaux de
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QUELLE VIE DANS LES MÉTROPOLES AU XXI^e SIÈCLE ?

LIFE IN METROPOLITAN AREAS IN THE 21ST CENTURY

QUESTIONS

ABOUT THE GREATER PARIS TERRITORIES
AND LIFESTYLES

Metropolitan mobilities and lifestyles

By Jean-Michel Vincent, workshop supervisor

The Ateliers's partners for the 2018 session :



Metropolitan mobilities :

According to the UN, in less than a century, the global population has grown from 2 to 7 billion people. This number will reach 8 billion by 2025; whereas the planet has not grown. How many of these 7 billion people have realized what is happening to us as a result of this exponential growth in such a short period of time? Our representations of reality are overtaken by the population explosion, which is reflected in the decisions of public authorities.



Estimation of the world's population by 2025 (UN)

According to the IPCC, when a tonne of CO₂ is emitted in Paris, Beijing or New York, it is uniformly distributed around the earth one month later, for at least a century.

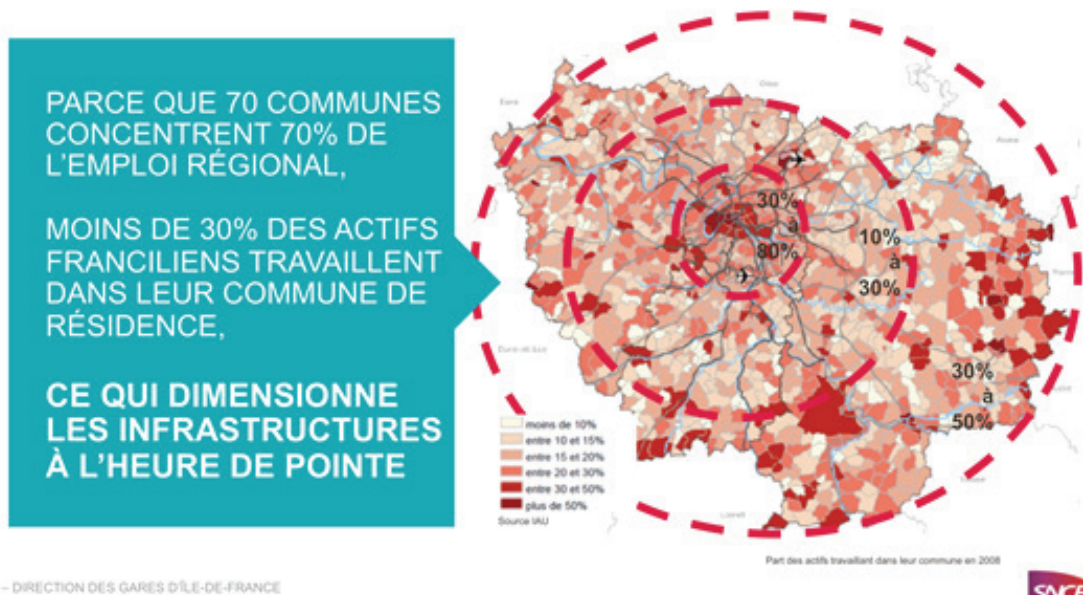
According to the Mauna Loa Observatory and the IPCC, at the rate at which we emit greenhouse gases, we will cross the irreversible threshold of 450 ppm, which will trigger a 2°C rise in temperature, by the 2030s.



CO₂ content in the atmosphere (ppm) (Mauna Loa Observatory)

In the Île-de-France, 20% of emissions are due to land transport: 100 million kilometres' worth of trips are made each day by car (200 g CO₂/km), compared to 50 million by public transport (7 g CO₂/km).

Structurally, commuter travel during rush hour determines the scale of land transport infrastructures. The location of housing and jobs is a major determinant in the generation of flows and public expenditure in terms of both investment and operation, but their evolution is not compatible with the urgency of climate change. We must reduce our emissions with the territory as it is, or slightly changed. Especially when, according to the DRIEA, the 72 stations of the Greater Paris Express (40 billion euros) will transfer only 1% of car travel to its lines.



Share of the working population employed within their own municipality in 2008 (SNCF)

Million de voyageurs km/jour	France hors Île-de-France	Île-de-France	France
Automobile	1 900	100	2 000
Ferroviaire	210	40	250
Métro-bus-banlieue	115	10	125

Source Ministère de l'équipement

Ministère de l'équipement

Professional mobilities in 2014 (Ministry of Public Works)

Two-thirds of the 100 million kilometres travelled by car correspond to the outer suburbs of the Île-de-France Region, mainly due to commuter, business and school travel. Half of the 100 million kilometres travelled by car is generated by the 15% of trips that involve more than 10 km.

According to the SNCF, 83% of passengers entering stations in metropolitan France are from the Île-de-France Region.

Ninety-three per cent (93%) of Île-de-France residents live less than 3 km from a station; however, there is wide disparity in services:

In round figures, Paris is equipped with 380 metro stations and train stations for 2 million inhabitants, running at a frequency of 3 minutes; the Petite Couronne (Inner Ring) has 250 stations for 4 million inhabitants on a territory 6 times larger than the city of Paris, running at a frequency of 10 minutes; the Grand Couronne (Outer Ring) has 150 stations for 6 million inhabitants on a territory 25 times larger, running at a frequency of 20 to 30 minutes.

Meanwhile, Senator Fabienne Keller's report to the Prime Minister in 2009 highlighted the trend towards a twofold increase in the number of people using the 800 metro and train stations in the Île-de-France Region by 2030, which poses major transportation infrastructure problems (e.g. trains and stations), but would allow half of the 100 million kilometres of trips by car to be shifted to low-emission public transport. Supplemented by the twofold decrease in greenhouse gas emissions per kilometre travelled by cars, it would make it possible to reach Facteur 4 of the 2005 Programmation fixant les Orientations de la Politique Énergétique [Programming Setting the Energy Policy Guidelines] (POPE) law, voted in application of the Rio COP findings in 1992.



Excerpt from Keller's report (illustration by François Kenesi)

Note: Facteur 4 cannot be achieved under the current state of public policy since the heavy trend towards traffic growth clashes with:

- the limit introduced by rush hour traffic and the corresponding saturation of infrastructures. For all that, the creation of third places at train stations in the Outer Ring is not a concern of the public authorities. The same applies to creating jobs close to housing.
- two urban obstacles:
 - train stations and their districts, which are unsuited to the challenge in terms of density, development, traffic and parking and which remain unsuitable; public authorities no longer deal with the under-utilisation of bicycles and cycling paths throughout the region, whereas two-thirds of all travel cover a distance of less than 3 km and 93% of Île-de-France residents live less than 3 km from a station, the distance of relevance for cycling, all the more so for electric bicycles, which eliminate the issue of gradients.
 - the urban human density of the Outer Ring (half the population of the metropolitan area) which feels abandoned by public authorities in terms of the Greater Paris Express which has been planned without the slightest organisation of a public transportation system adapted to its urban human density. There are, however, buses with a high level of service on motorways and car-pooling that are 10 times cheaper than the Greater Paris Express.

Lifestyles :

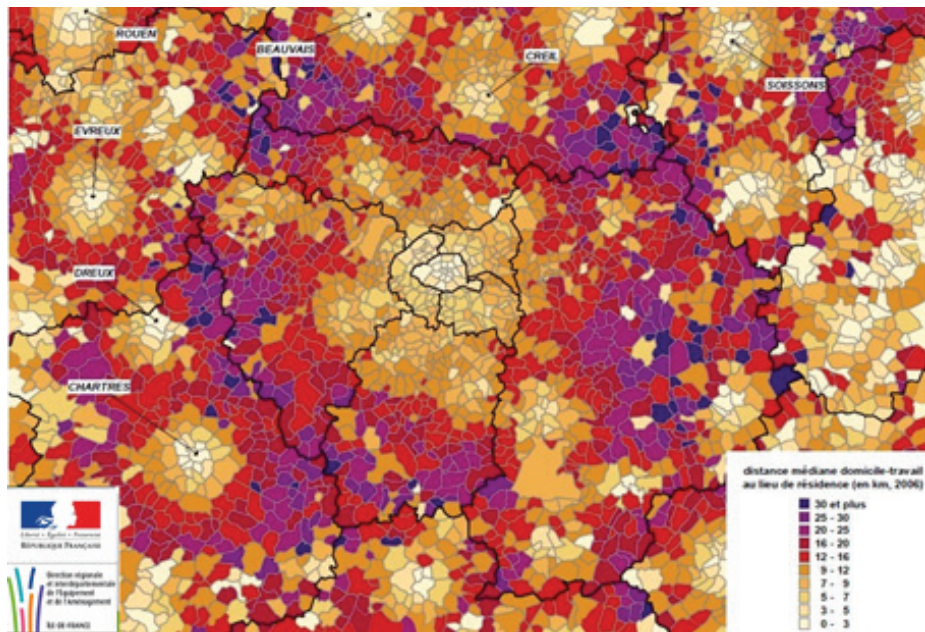
On average, 91 minutes is the amount of time an Île-de-France resident spends travelling, all modes of transportation combined, according to the 2010 global transportation survey. "On average"— we might as well say that this average makes no sense. In reality, the situation is quite different.

Therefore, according to the same survey:

All modes of travel combined, the range in kilometres of all trips varies by a 1:2 ratio between Paris and the Outer Ring (2.8 km compared to 5.9 km, respectively);

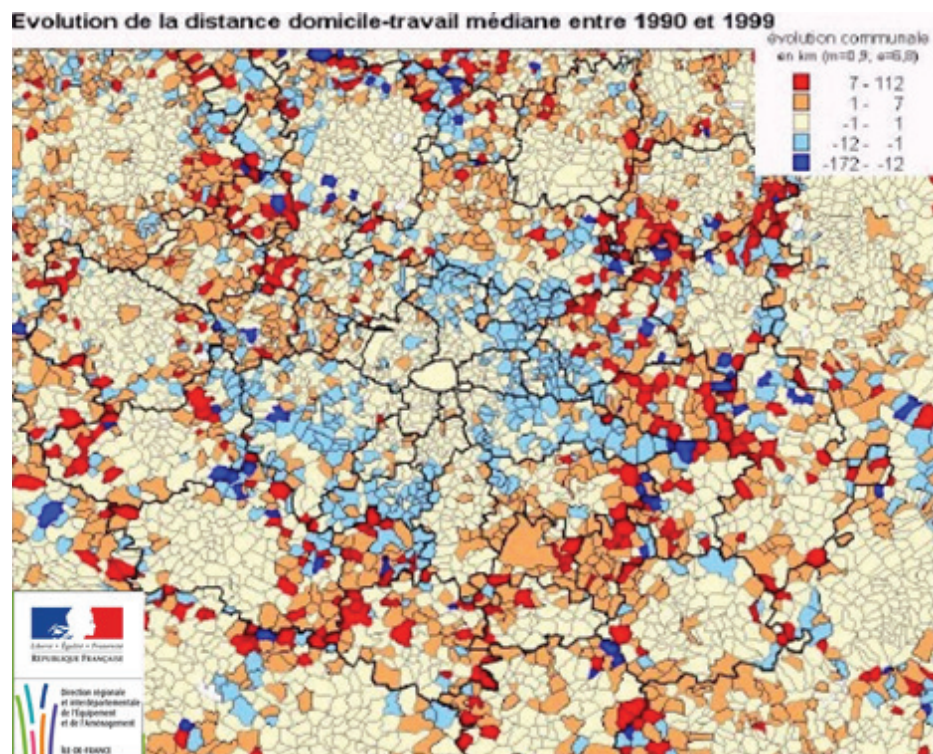
All modes of transportation combined, the range varies by a 1:16 ratio between Paris–Paris connections and Paris–Outer Ring connections (1.5 km compared to 24.1 km, respectively);

Commuter travel distances are 3.7 km longer than non-work-related trips (10.3 km compared to 2.8 km, respectively).



Median commuting distance in relation to place of residence in 2006 (DRIEA-IDF)

and this situation has worsened:

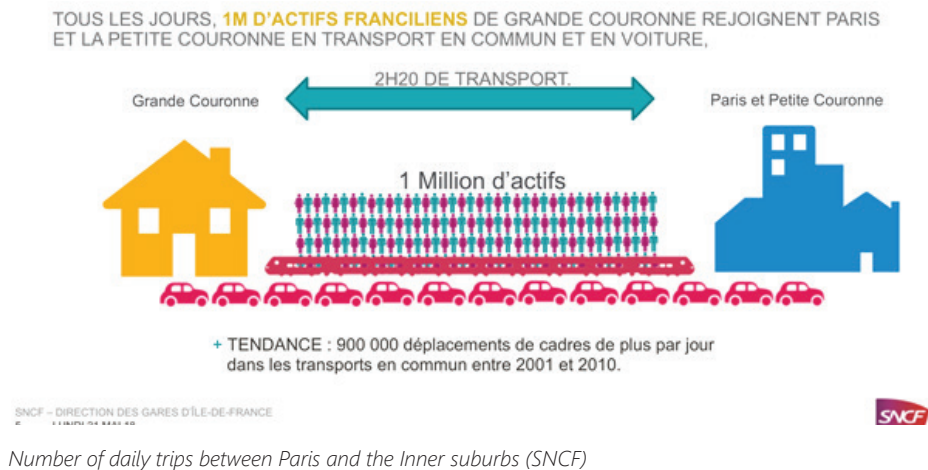


Evolution of the median commuting distance between 1990 and 1999 (DRIEA-IDF)

Travel times in the Île-de-France reflect this situation:

- Commuter travel times are twice as long as non-work-related travel (41 minutes compared to 19 minutes).
- Half of the working population spends more than an hour going to and from work, almost 4 times as long as the other half (54 minutes compared to 15 minutes). Twenty per cent (20%) of the working population spend 2 hours and 20 minutes making the round trip.

"One million working people (of the 1.6 million in the Île-de-France's Outer Ring and of the 5 million in the entire region of the Île-de-France) live in the outer suburbs of Paris and go to work every day in Paris and in the Inner Ring, they average 2 hours and 20 minutes of travel per day; half by car and half by train. The 500,000 or so working people who take the train make up, during rush hour, two-thirds of the passengers in Île-de-France's normal traffic.¹ (EGT 2010 and SNCF Direction des gares-IDF)



"Workers who spend less than a quarter of an hour commuting take advantage of this to make other trips (one more than other workers) while spending only 67 minutes a day commuting. Working people who spend more than 1 hour travelling between home and work spend most of their travelling time at work. Of the 200 minutes (3hrs 20 mins) that these workers spend, on average, travelling on a weekday, 80% is devoted to commuting alone, i.e. about 2hrs 40 mins." (EGT 2010 N°17, January 2013)

According to a report submitted to the minister of industry in May 2012, telecommuters save 82 minutes of travel time per day by telecommuting. They spend the 37 minutes they gain on family life and 45 minutes on additional sleep.



Note: France is known for its 35-hour week.

The range of commuting, all modes combined, has increased by 50% over the past 34 years (from 6.6km to 10.2km)

Half of the working population goes to and from work in two trips of 54 minutes, which is 78 minutes more per day than the other half. Everything therefore happens as if, for this half of the working population or 2.5 million people, the 35-hour week was a week of more than 41 hours.

This observation is aggravated by the 350,000 working people living outside the Île-de-France who come to work every day in the Île-de-France Region.

The time saved by telecommuting (from home) is about an hour and a half, half used for family life and half for sleeping. Hence the interest in third places, which allow for telecommuting in professional conditions and the development of this mode of work which is capped at 11% in France while Anglo-Saxon countries are currently double this, or even the triple in Northern Europe.

1 This excludes auto-entrepreneurs (self-employed workers), who earn on average less than €500 per month and therefore do not