Deconfinement of France in May 2020: objectives of the government, difficulties and results

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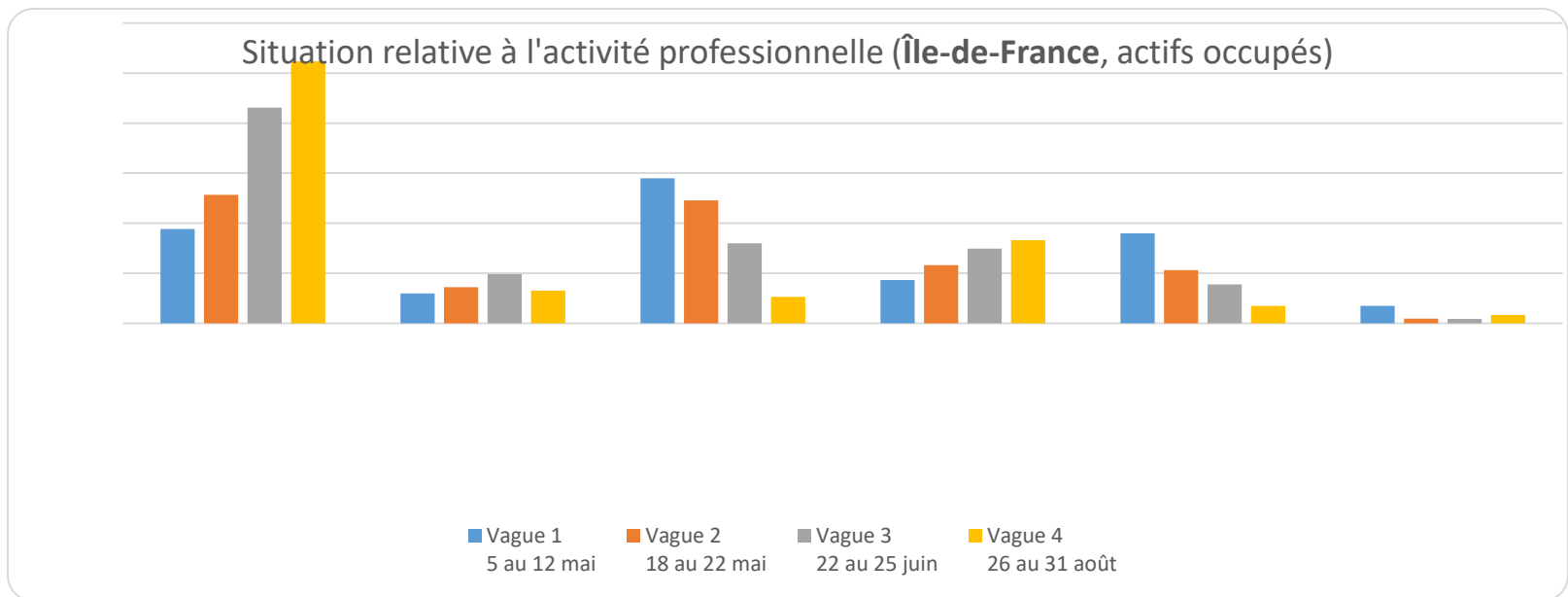
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Paris, France

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A 9 months long sanitary crisis

- 16 March 2020: French President orders general confinement
- 11 May: 1st deconfinement, back to work and primary school
- 2 June: 2nd step of deconfinement, back to high school, restaurant and church
- 22 June: 3rd step of deconfinement, back to old people's home, back to normal life
- October: come-back of the epidemic, occasional restrictive measures

Situation relative à l'activité professionnelle (**Île-de-France**, actifs occupés)

■ Vague 1	■ Vague 2	■ Vague 3	■ Vague 4
5 au 12 mai	18 au 22 mai	22 au 25 juin	26 au 31 août

Current problems during deconfinement

- « Social distanciation » in transport means: transport providing authorities and their providers alert about the risk of « chaos » and economic deadlock
- How to justify regulation gaps between massified transport and local or shared ones?
- Child care: 30 % among Paris RATP agents held at home at deconfinement time
- Pervers outcome of incitement to caution: peak traffic at unexpected time
- Verbal and physical violences

Citizens' reluctance regarding public transport in the biggest cities

- By end of September, urban traffic has reached 80 – 90 % of previous level, except in Paris region where it's remaining about 65 %
- According to the Scientific Covid Committee, no more than 1 to 2 % of the clusters come from public transport
- But distanciation constraints imposed at recovery time remain engraved in all memories
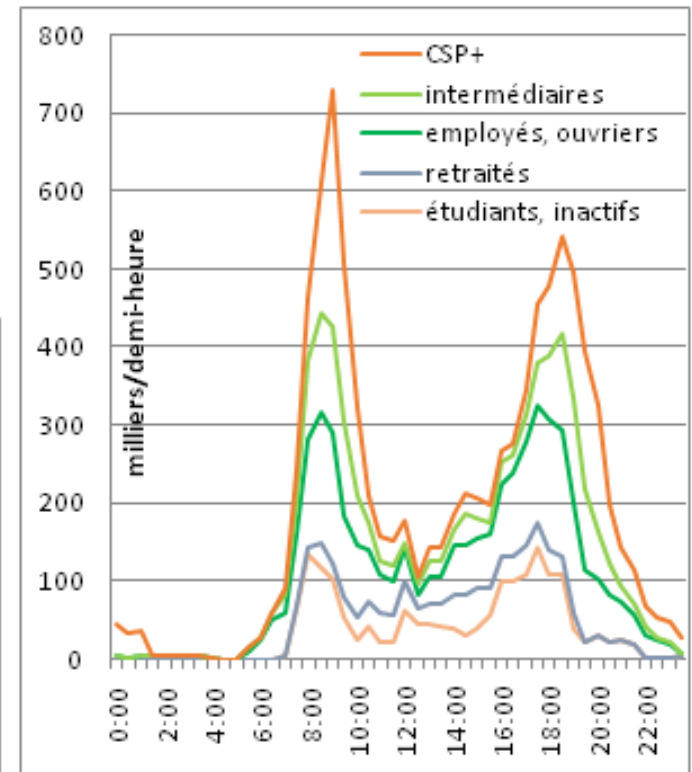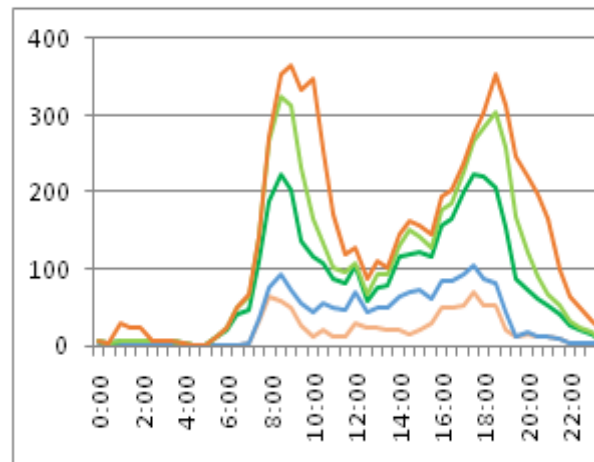
Completely new users' behaviors

People dit adapt their behavior:

1. Teleworking
2. Anticipating or delaying departure time in order to avoid peak hour
3. Choosing individual transport means (including car) due to distrust about collective means

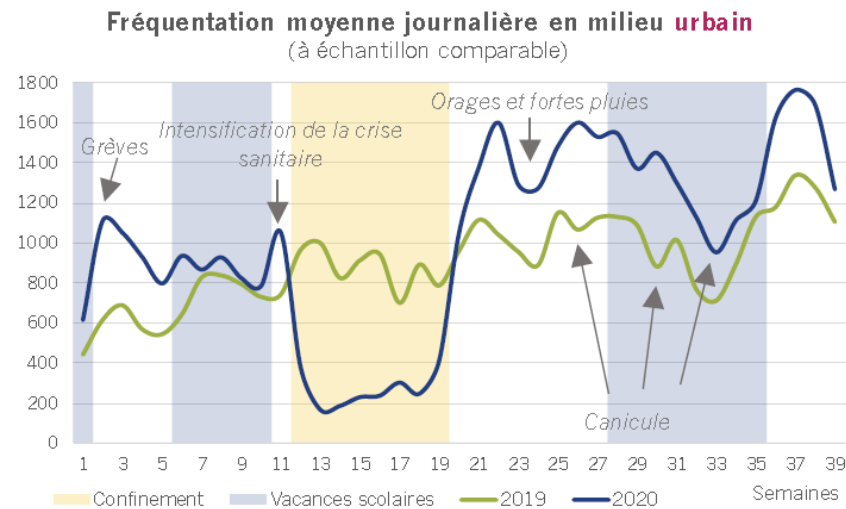One may now expect as realistic lowering peak hour traffic by 50%

How to prevent car flood at deconfinement time

- Collective means desinfection, simplified ticket distribution, distancing
- « Coronalanes »: acceptables on the main boulevards in view of road traffic

Active mobilities: bike meets with real success but remains marginal

- Before corona crisis, bike represented 2 % of moving in big cities, 3 % in Paris downtown and Lyon, more in Strasbourg and Grenoble
- Its traffic amount did grow by 40% in September 2020, 70 % in Paris where it 's currently reaching 5 % (only) of moving
- But what about the next cold season?

Fréquentation moyenne journalière en milieu urbain
(à échantillon comparable)

Grèves · Intensification de la crise sanitaire · Orages et fortes pluies · Canicule

Confinement · Vacances scolaires · 2019 · 2020 · Semaines

# Traffic forecasting at deconfinement time with the help of classical models

- The Ministry put McKinsey in charge of a mission of public modelling coordination (of its regional directorate and of the regional transport authority)
- Computing results in short term too optimistic (high) results
- Too much scenarios, too much variables in the model: analysis difficult
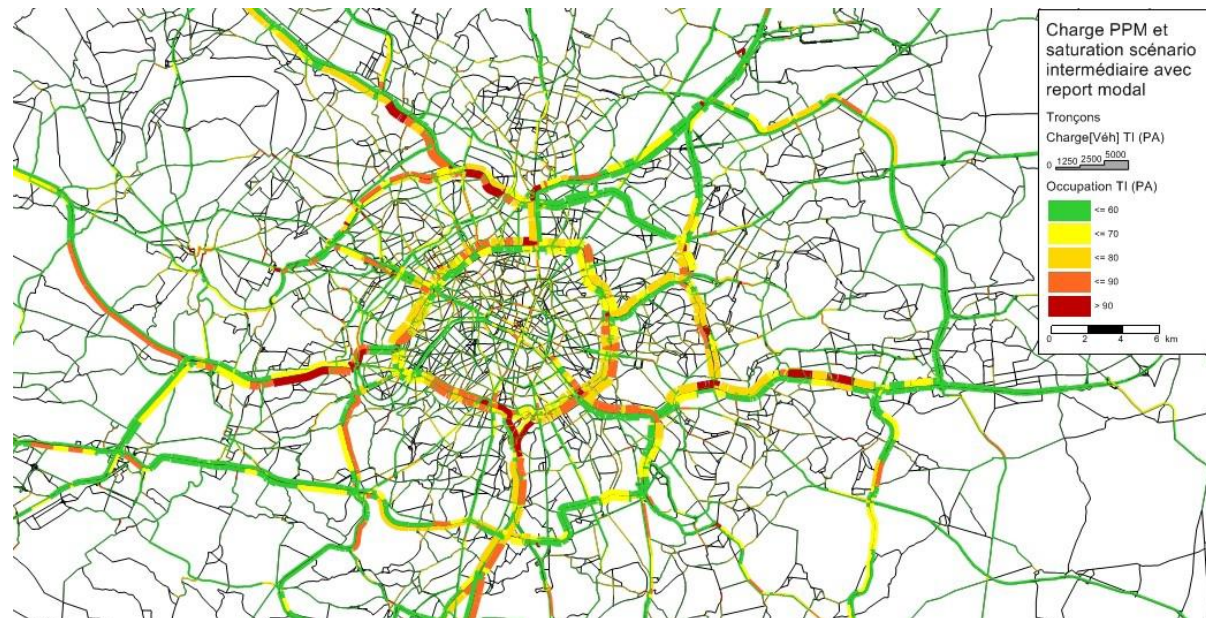
Traffic survey (and forecasting) from smartphones

- Survey from people's request or cooperation (RATP...): too many input, no reliable output
- Survey by the mobile telephone network (telephone providers): global population movements in crowded places evaluation, more precise profiles analysis

Carte 1 : Taux d'évolution du total des nuitées par département de présence avant et après le début du confinement.

%
- moins de -5
- -5 à -2
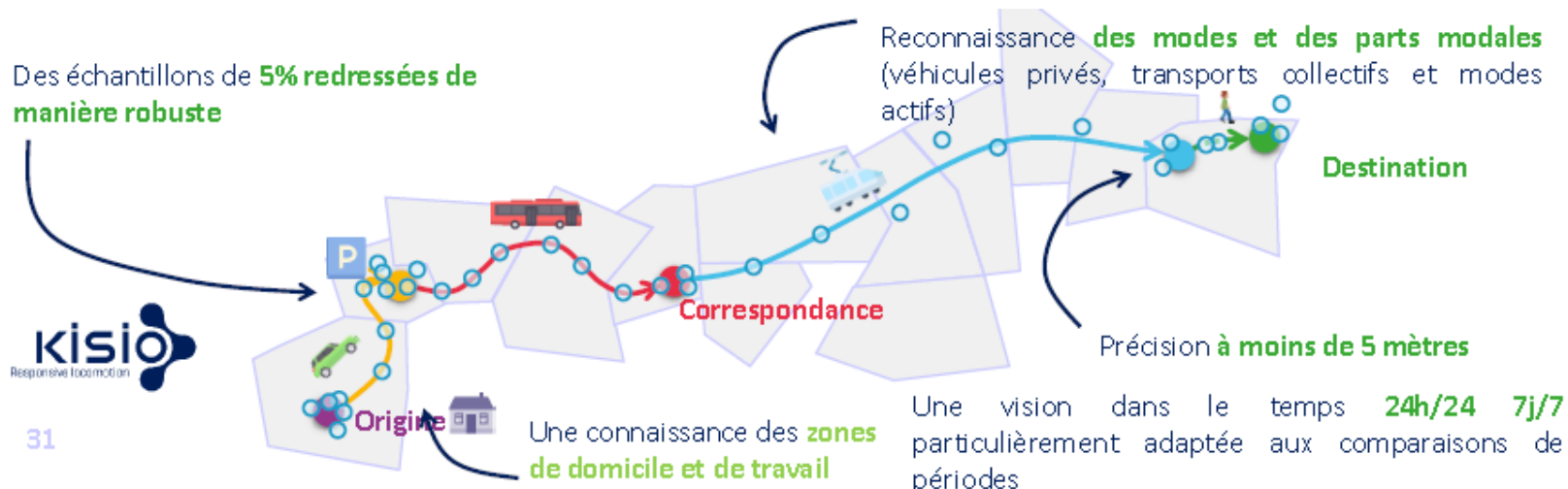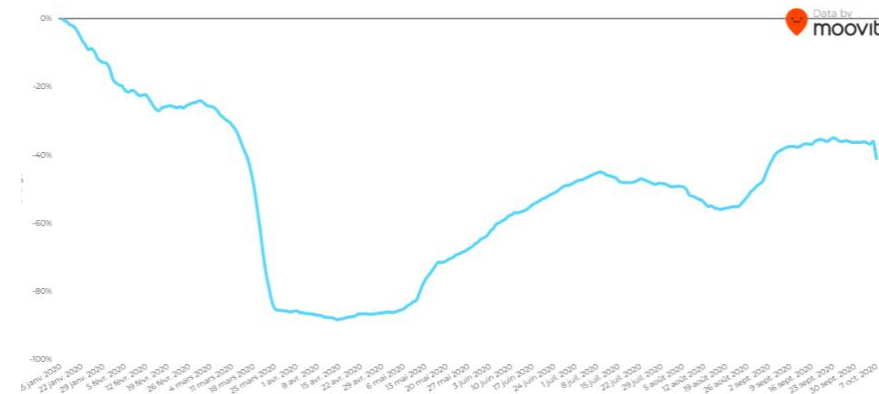- -2 à 0
- 0 à 2
- 2 à 5
- 5 à 7
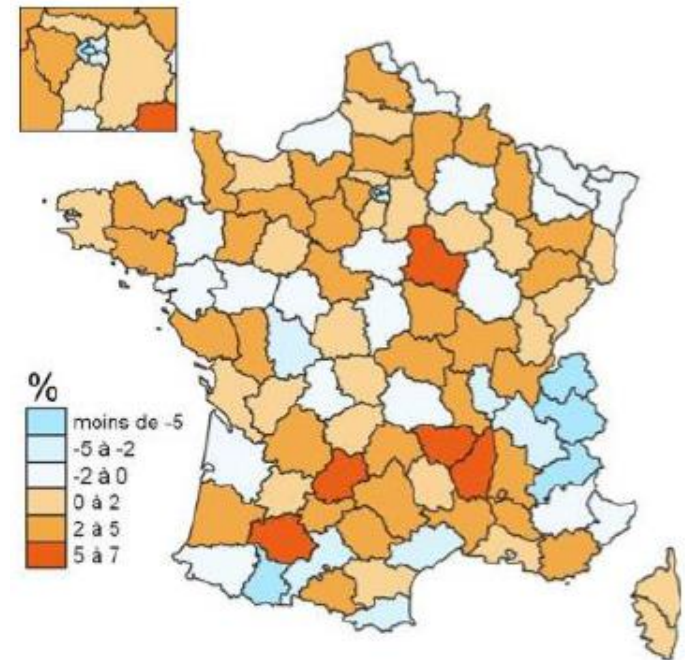
Source : Orange, Insee (RP)
Exemple de lecture : le nombre de personnes présentes en nuitée dans l'Yonne a augmenté de l'ordre de 7 % à l'occasion de l'entrée en confinement alors qu'il a baissé de plus de 5 % dans les Hautes Pyrénées (fermeture des stations de ski).

Smartphones survey (2)

- Survey by satellite (Kisio, Moovit...): can help evaluating flows on axes, cannot analyze according profile nor motive
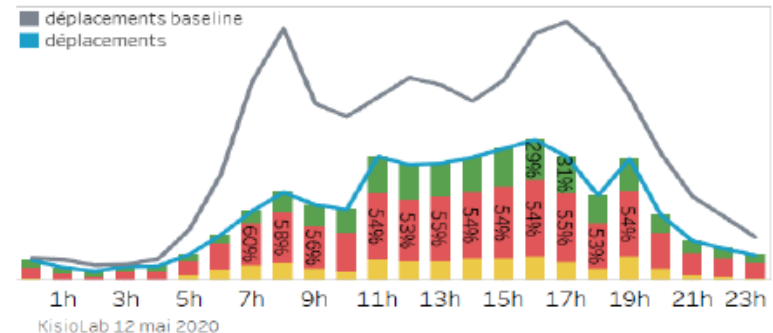
Survey and forecast techniques: synthesis

technique	author	advantages	disadvantages
4 step model	Modus, Antonin...	infrastructures and services sizing scenarios evaluation	doesn't suits crisis situations
poll	Harris...	unveils short term trends	qualitative blind regarding long term
ticketing	exploitant de service de transport	quasi real time	route allocation impossible (cf connection metro station) underestimation of traffic (people getting on board of bus without paying)
automatic computing	Thetis...	exhaustive computing affectation to the relevant route segment	vehicles fitting equipement cost
collaborative platform	RATP...	real time traffic vision	poor reliability due to lack of data
radio relay follow-up	opérateurs téléphoniques	districts and towns frequentation evaluation idea of commuting flows	imprecise location: forgets little trips (walks), route allocation impossible
satellite follow-up	Google, Moovit, Kisio...	precise location: allows assigning on a route, modal choice vision, intuition of the motive (work...)	Ignores passenger's profile cross-section bias
wifi follow-up	Kisio...	precise location including out of telecom network(metro)	vehicles fitting equipement cost

Which tools for authorities?

- Cooperation among authorities and data providers?
  - According to the European legislation, transport providers will son be put into concurrence, so they don't wish to share information
  - Big data processors hold their algorithms secret
  - A public / private cooperation in order to refine analysis?

- New regulatory tools:
  - Decisions taken at Spring (wearing mouth mask, emplyer's attestation…) did temporarily succeed

  Distribution horaire des déplacements

  ▪ déplacements baseline
  ▪ déplacements

  1h 3h 5h 7h 9h 11h 13h 15h 17h 19h 21h 23h
  KisioLab 12 mai 2020

  60% 58% 56% 54% 53% 55% 54% 54% 29% 31% 55% 53% 54%

  - Providing people with providers' mobility data: European regulation 2017/1926, mobility law 24 Dec. 2019, art. 25

Preparing « tomorrow's world »

- Mobilizing employers on teleworking and peak hours spreading out

- Mobilizing employers, real estate promoters and local authorities on coworking

- Integrating multimodal information

- Easing modal shift and slow or shared modes (car sharing doesn't succeed in daily commuting): « tactic urbanism »

Thank you for your kind attention
谢谢您的耐心