COVIMOB: effects of Covid on mobility

Modal split & focus on public transportation and biking

October 21, 2020

Second SaMBA Transnational Workshop
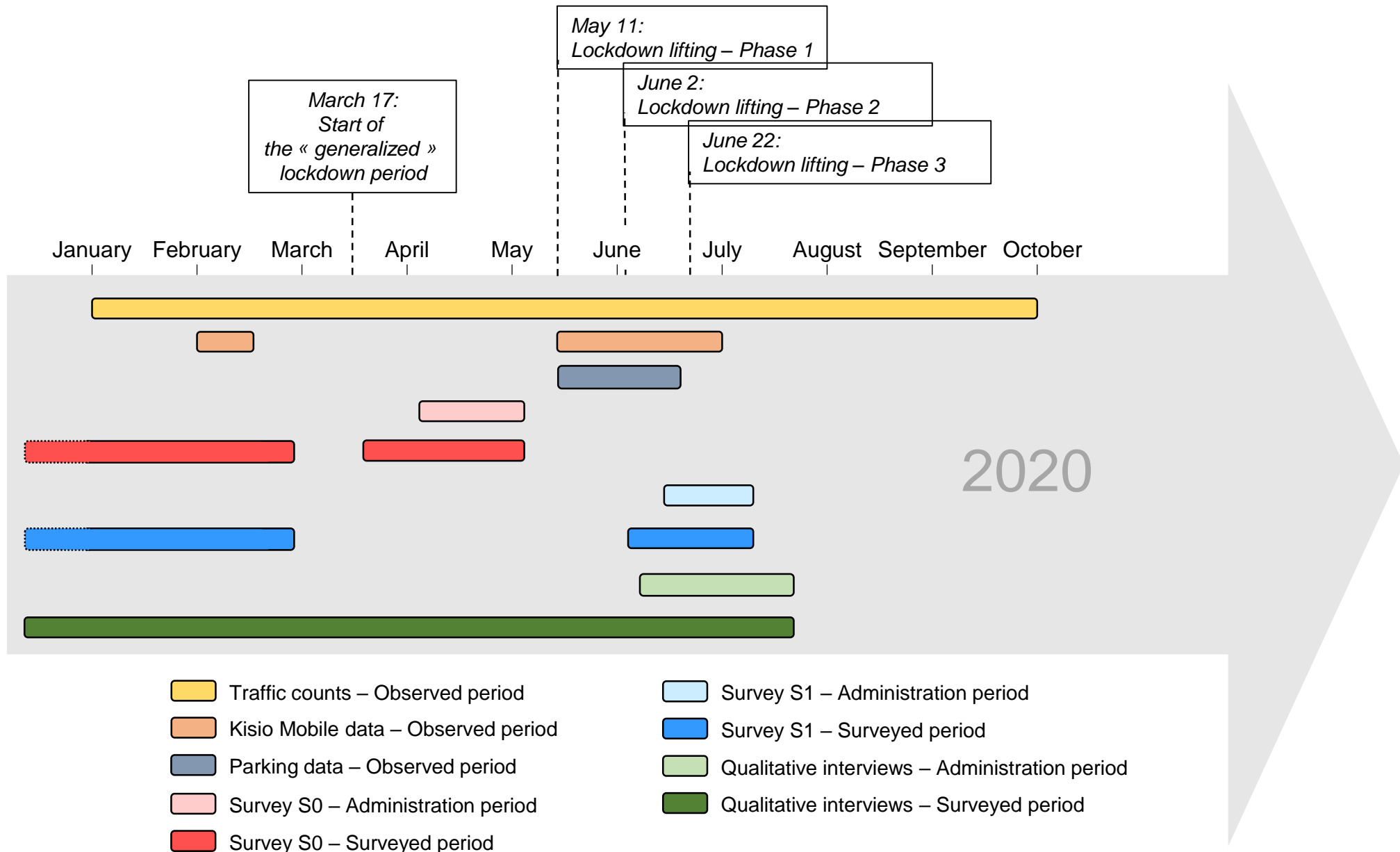
Adrien Beziat, Stéphanie Vincent

Outline

- Health context and data collection

- General shifts in mobility and modal split

- Focus on public transportation

- Focus on biking
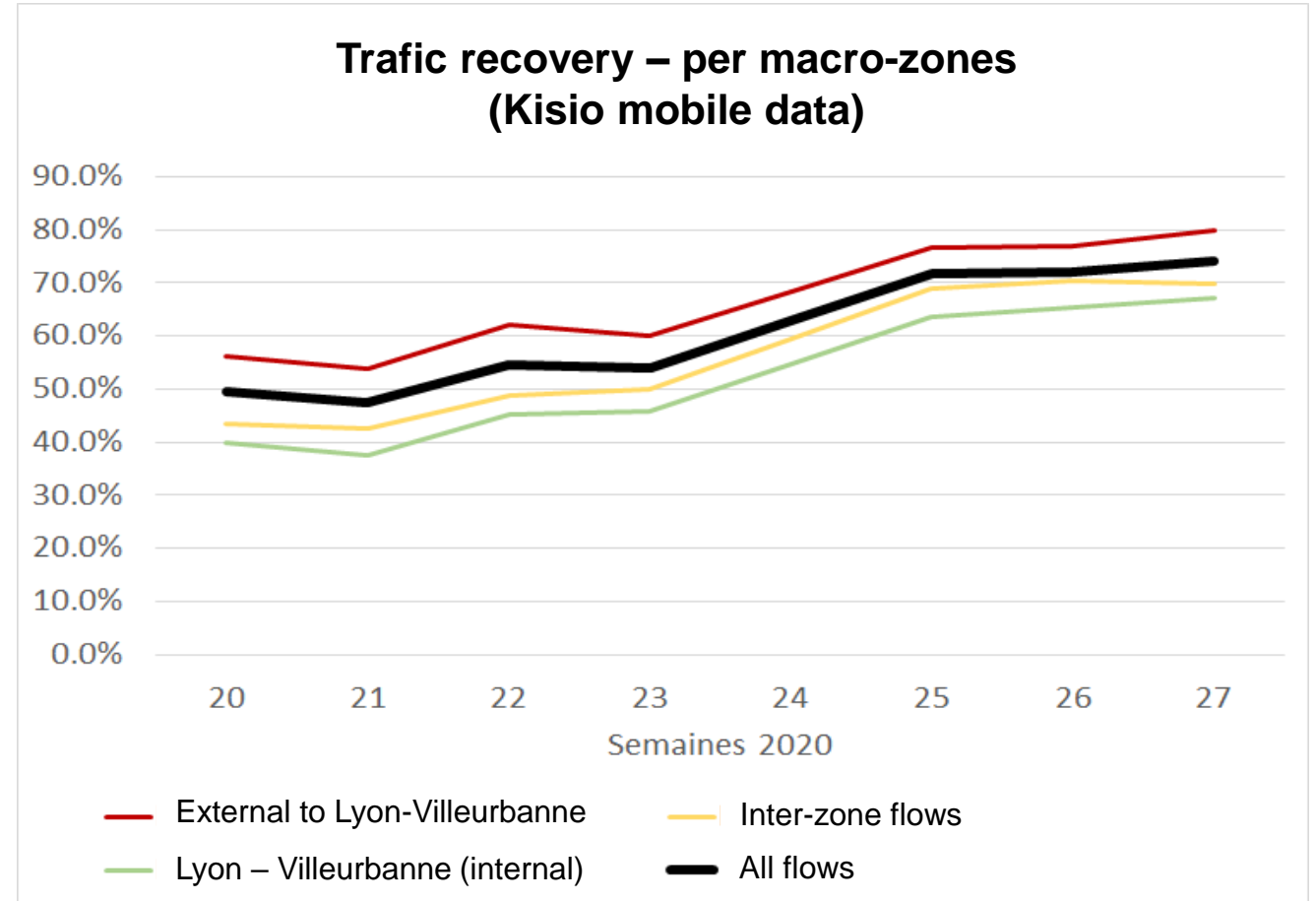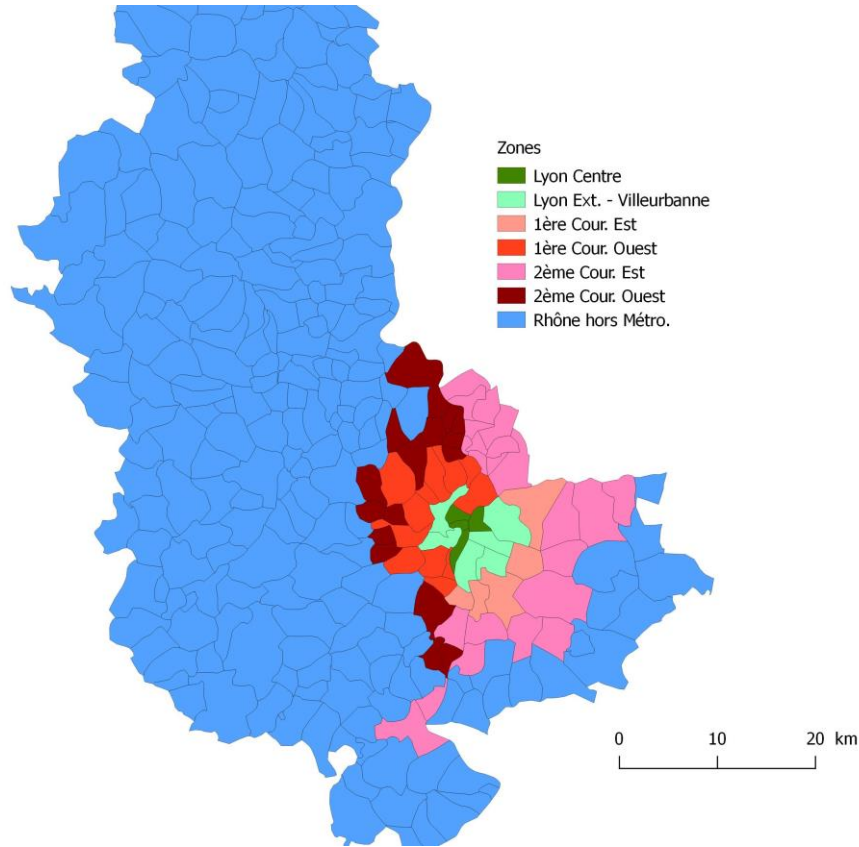
- More recent developments

Data collection

Data collection and health context

General shifts in mobility and modal split

A progressive recovery, different for each area

Zones
- Lyon Centre
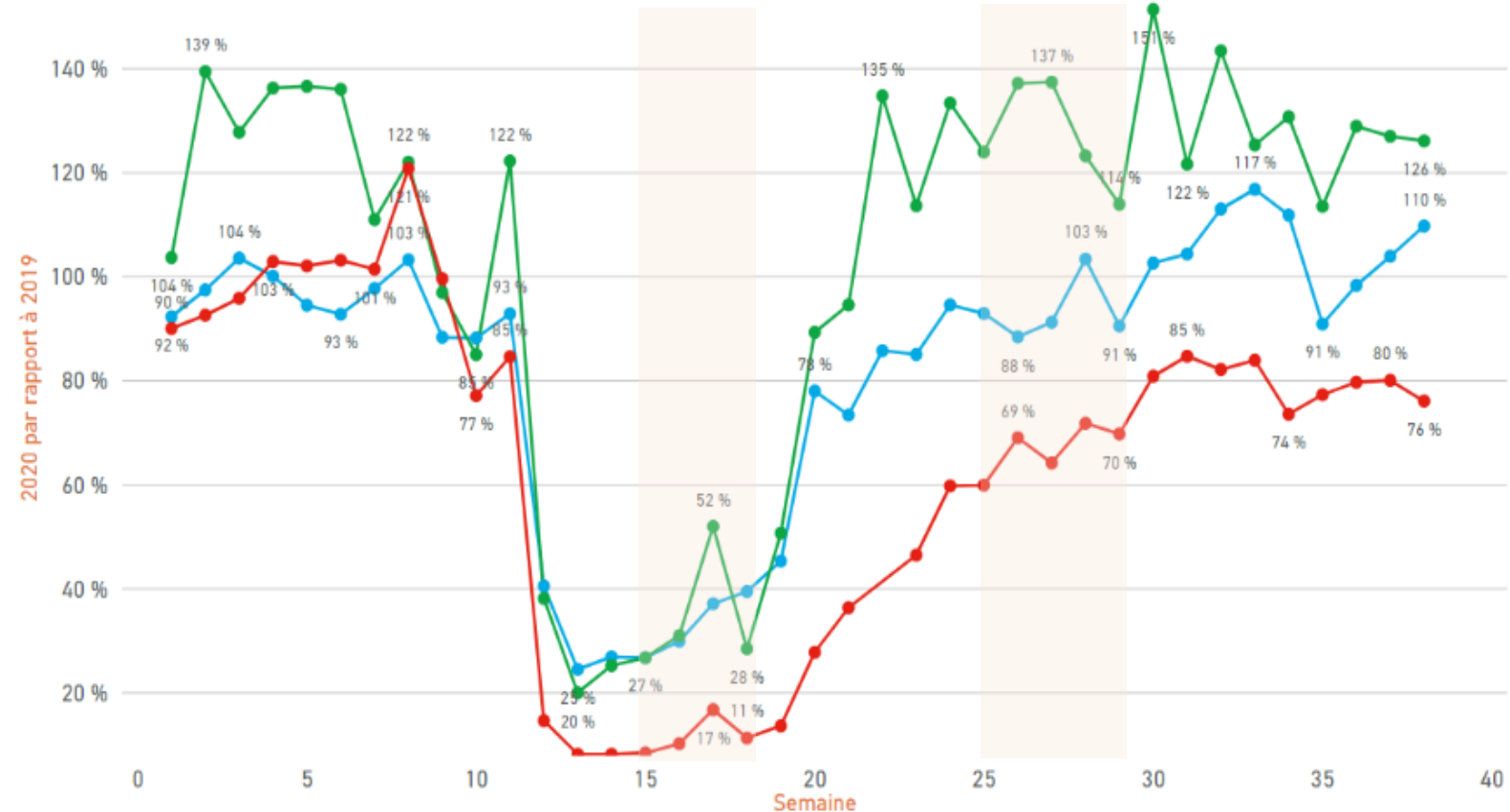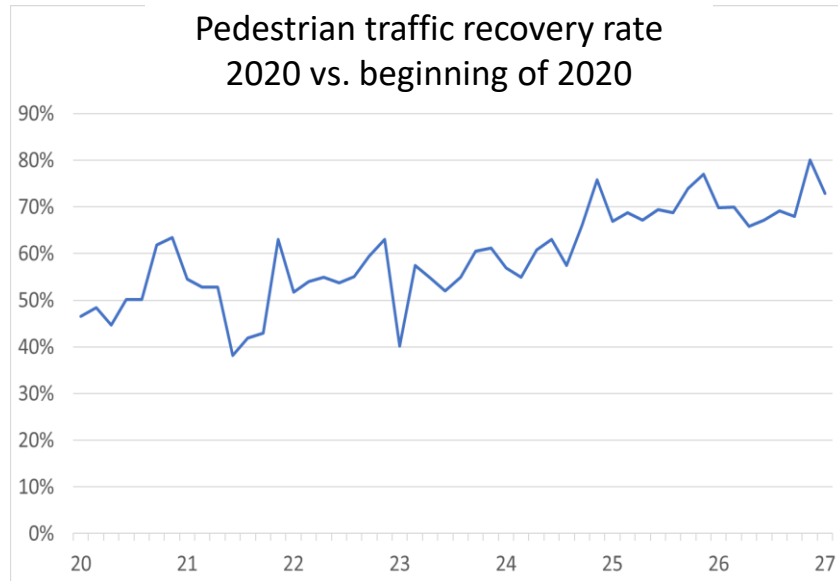- Lyon Ext. - Villeurbanne
- 1ère Cour. Est
- 1ère Cour. Ouest
- 2ème Cour. Est
- 2ème Cour. Ouest
- Rhône hors Métro.

0   10   20 km

**Trafic recovery – per macro-zones
(Kisio mobile data)**

Semaines 2020

—— External to Lyon-Villeurbanne
—— Lyon – Villeurbanne (internal)
—— Inter-zone flows
—— All flows

Varying trends for various modes

Pedestrian traffic recovery rate 2020 vs. beginning of 2020
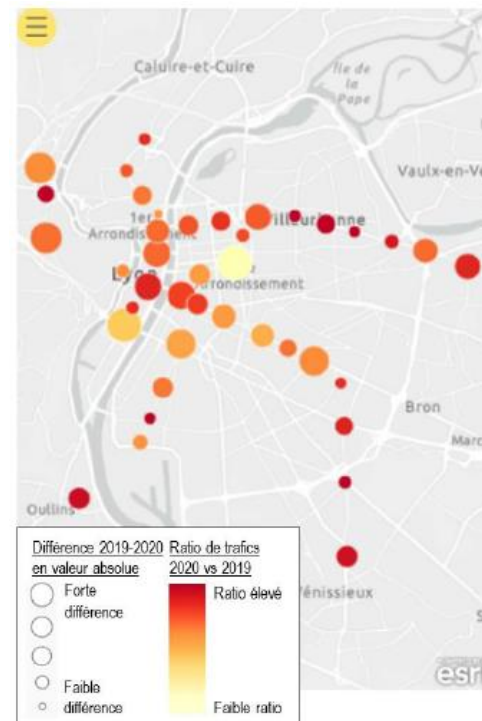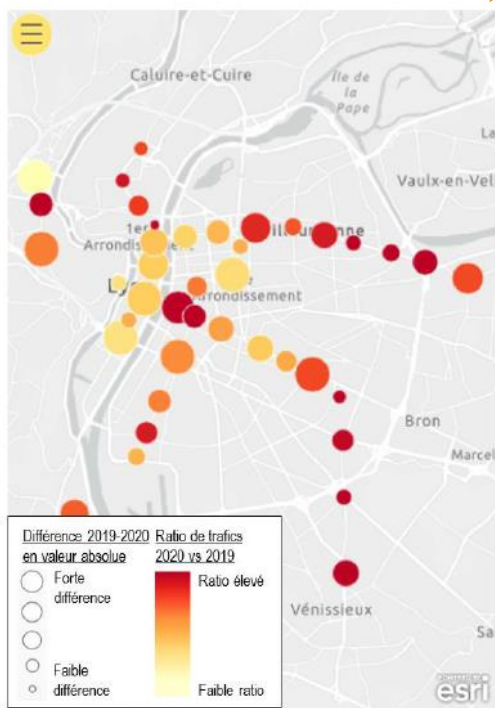
Traffic recovery rates 2020 vs. 2019 (same period)
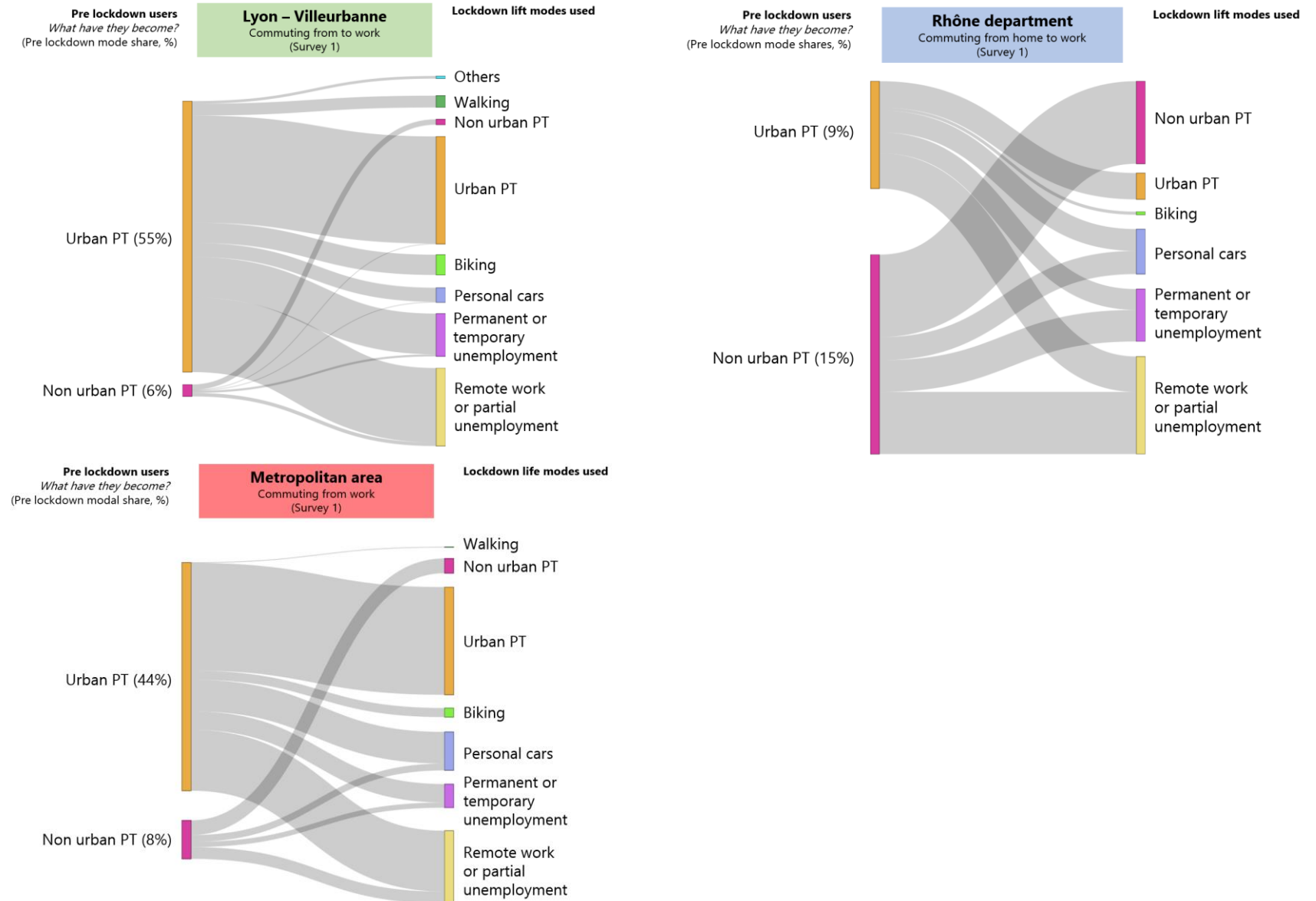
Focus on public transportation

A slow recovery and less defined peak-hours during lockdown lifting

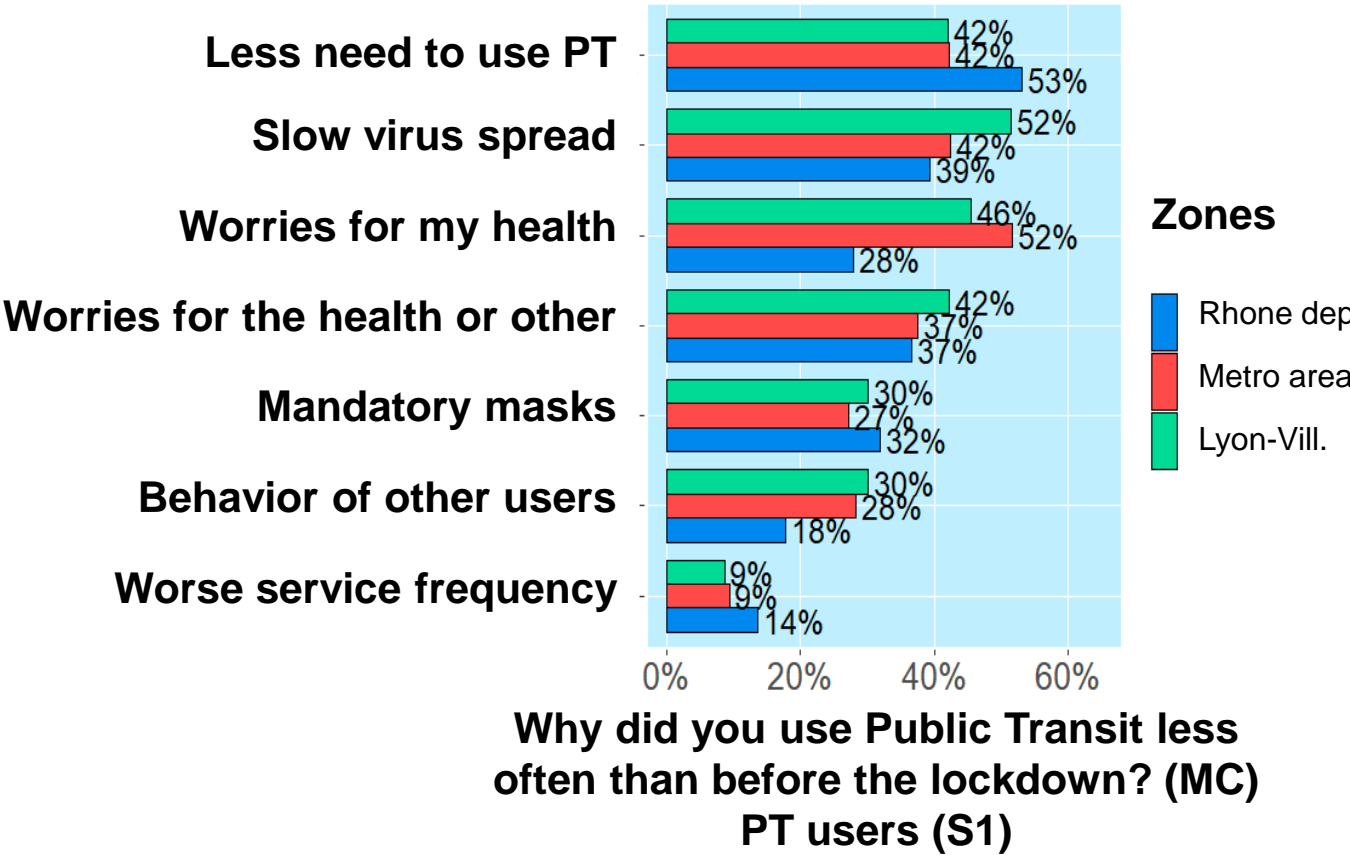# Lower mobility needs or modal shift ?

During lockdown lift

(Survey S1)

- Most of the traffic loss is the result of unemployment or remote work

- Modal shift is noticeable, however:
  - From PT to walking, biking and driving in the center of city

  - From PT to mainly driving (with some biking) in the suburbs and more residential areas

Attitudes towards the health crisis and its management

Why did you use Public Transit less often than before the lockdown? (MC) PT users (S1)

Chart data:

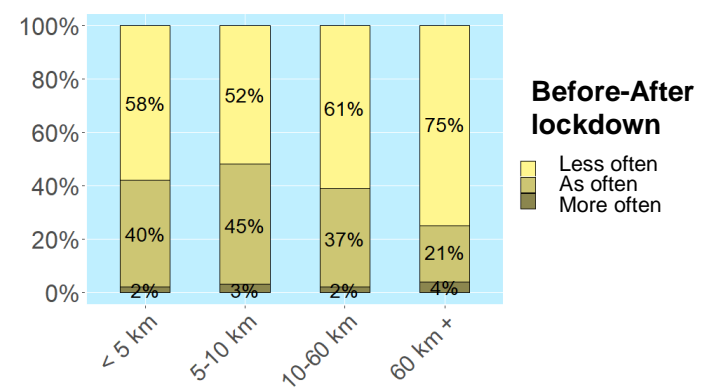| Category	Lyon-Vill.	Metro area	Rhone dep
Less need to use PT	42%	42%	53%
Slow virus spread	52%	42%	39%
Worries for my health	46%	52%	28%
Worries for the health or other	42%	37%	37%
Mandatory masks	30%	27%	32%
Behavior of other users	30%	28%	18%
Worse service frequency	9%	9%	14%

Zones: Rhone dep, Metro area, Lyon-Vill.

« It's my hypochondriac side. If someone touches a ramp, I say to myself: 'if I go in the subway I'll be a tightrope act, with the subway moving, it'll be pointless'. Also to be locked in a closed, underground location, with a potentially infected population.»
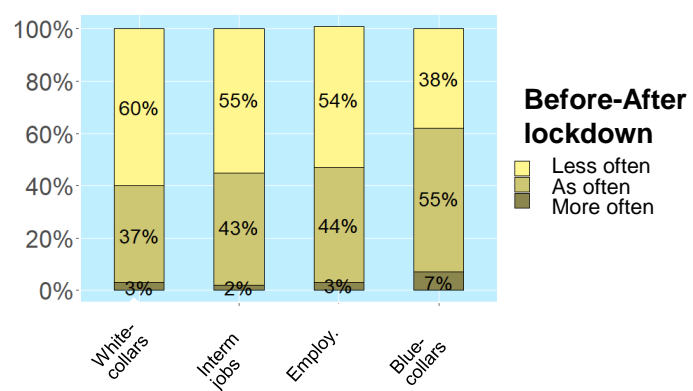(Interview with David, translated)

« It's really out of fear. Out of fear of the virus, I refuse to be near people, I can't really explain this, but it's really out of fear, out of fear for my health. »
(Interview with Charlotte, translated)

« Today, maybe I don't want to get sick because I took the bus. Yeah I'll admit that. It's really an anxiety... Which is crazy, because I'm not usually a hypochondriac, but it's an anxiety issue that I didn't have before. » (Interview with Solène, translated)
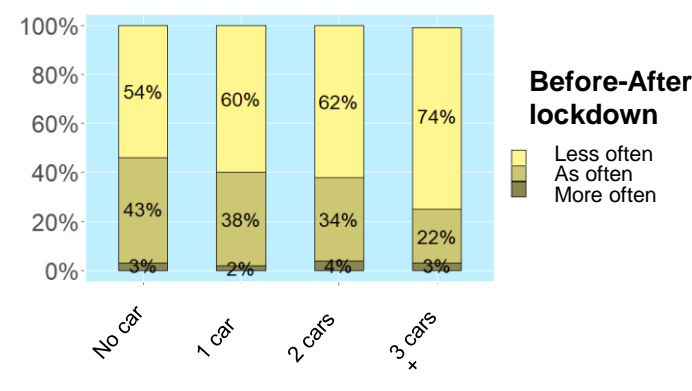
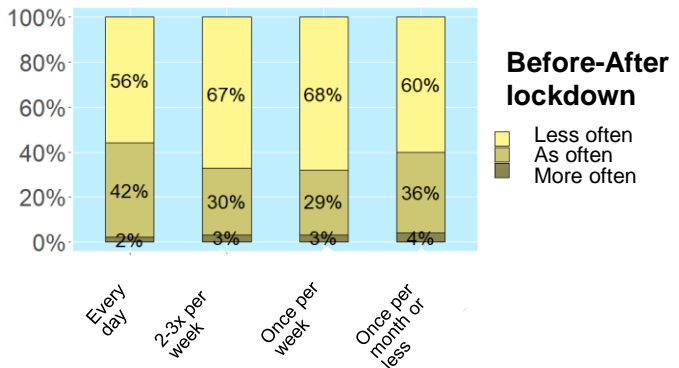# Avoidance behavior depending on multiple factors

Changes in the use of PT depending on the distance to workplace (S1)
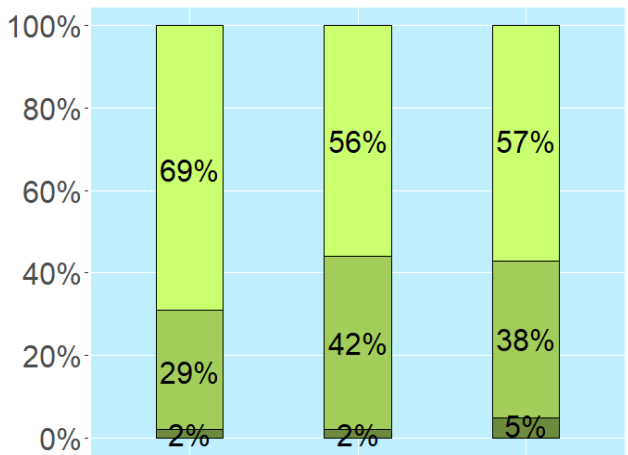

Changes in the use of PT depending on occupation (S1)

Changes in the use of PT depending on car ownership by household (S1)

Changes in the use of PT depending on the number of frequency of use before lockdown (S1)

Opinion on health crisis management in public transit, related to mandatory masks (S1)

How durable is this behavior?

« There was not a lot of people. Yeah there were no more than 4, maybe 5 people in the bus [during the lockdown], in both directions, that was pretty much the ceiling. Which is not the case at all today [during the lockdown lift], and I must confess that sometimes it's a bit stressful.» (Interview with Solène, translated)
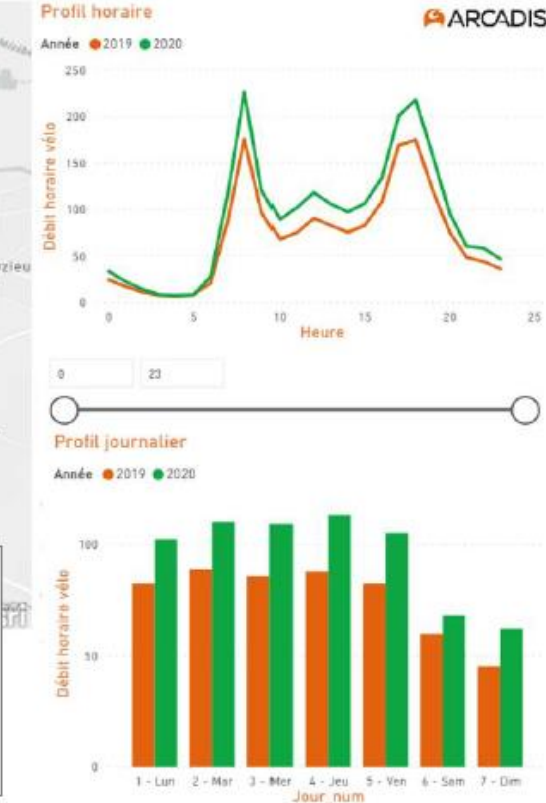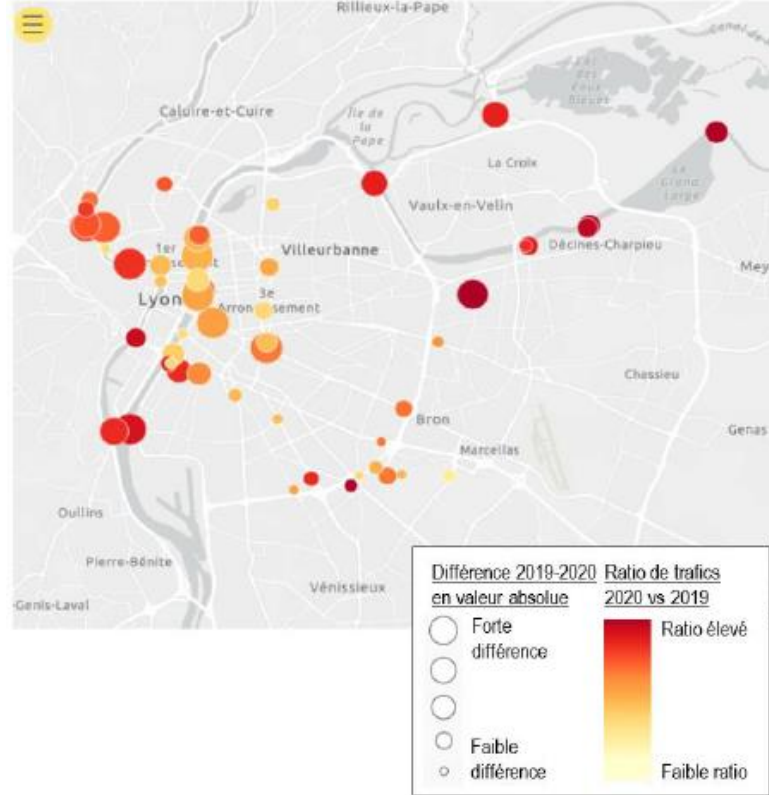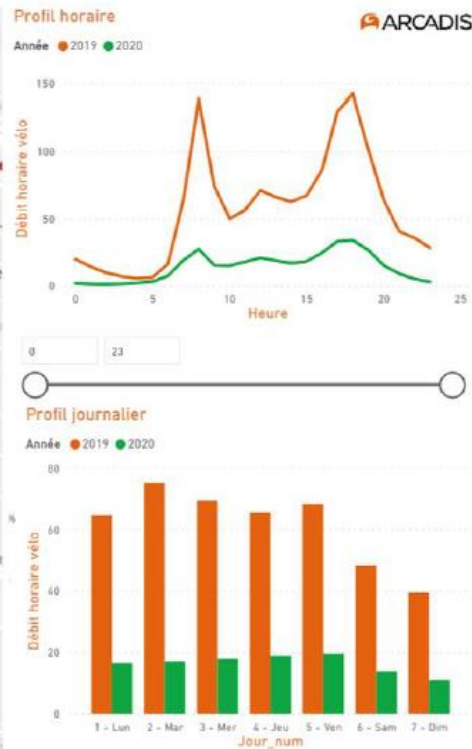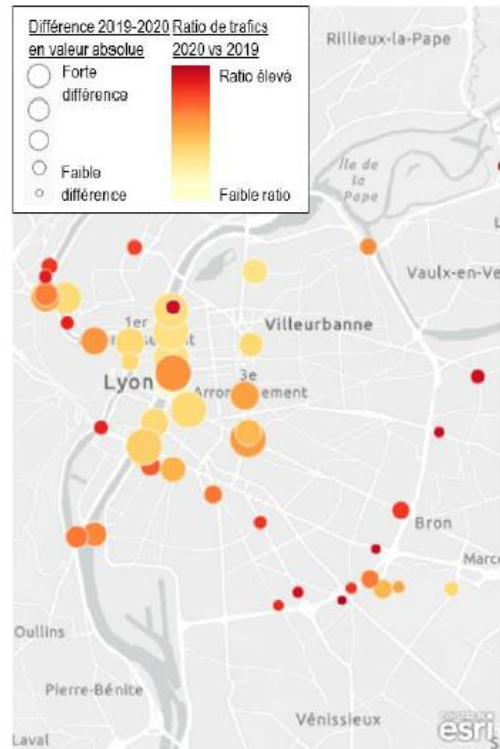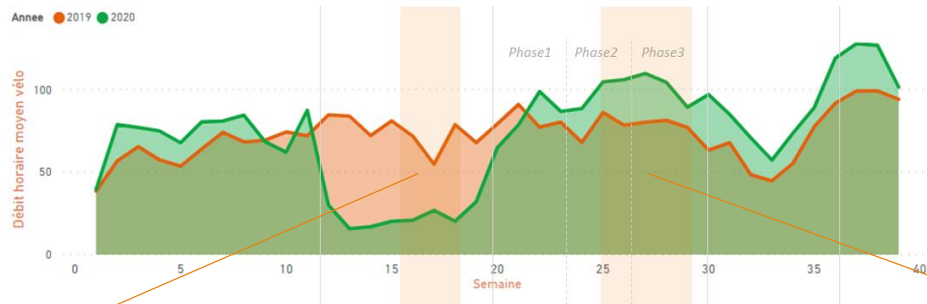
« So yeah, for September, it's a real issue. Surely if there is a second wave, I will not take the bus anymore. Knowing that, for me, it's not a pleasure to take the bus to begin with » (Interview with Julie, translated)
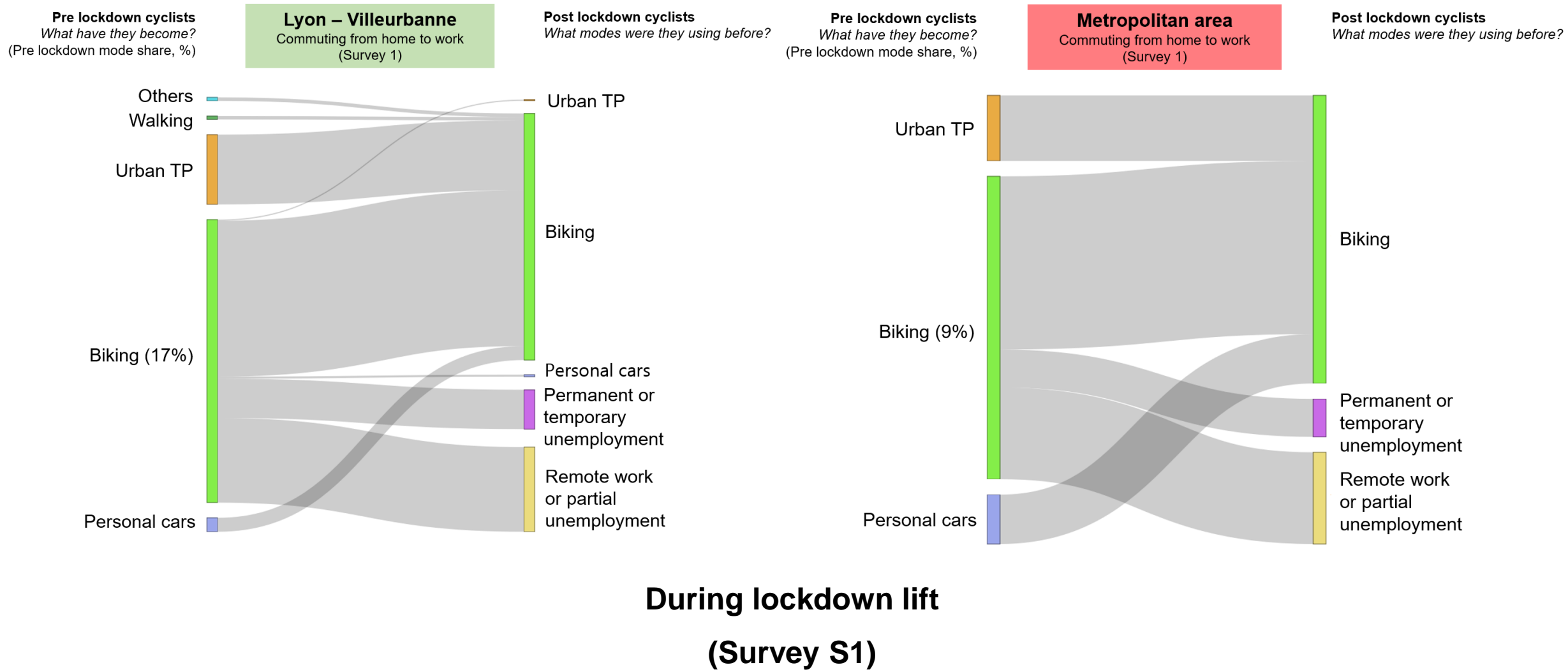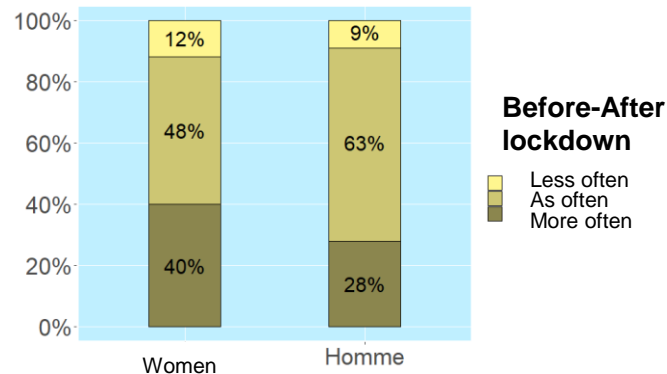
Focus on biking

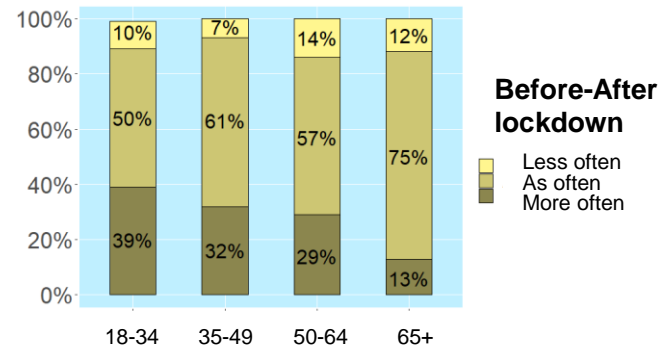# A quasi-immediate return to normality (and more)

Different situations for cyclists before and after lockdown

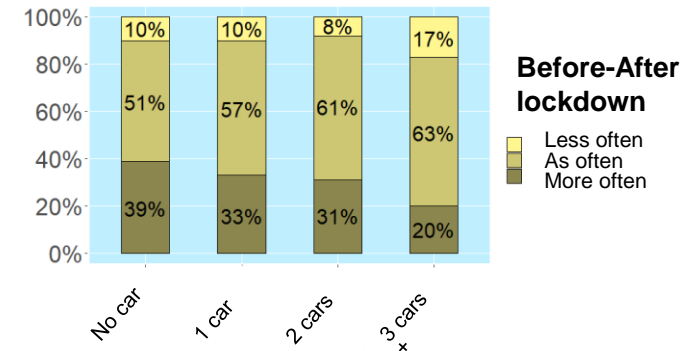**During lockdown lift**

(Survey S1)

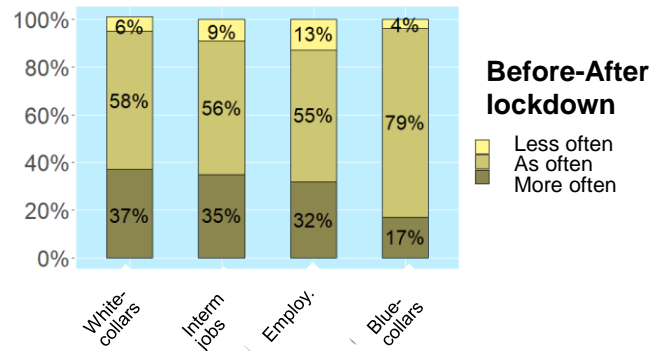# Différents facteurs liés à l'adoption (ou non) du vélo

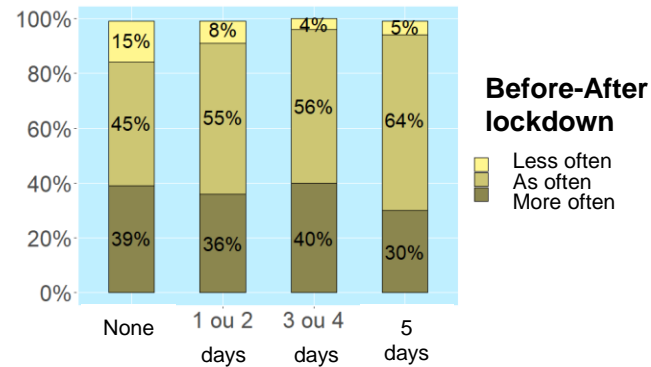Changes in the use of PT depending on gender (S1)

Changes in the use of PT depending on age (S1)

Changes in the use of PT depending on car ownership by household (S1)

Changes in the use of PT depending on occupation (S1)

Changes in the use of PT depending on occupation (S1)

« I was afraid that there would be very few trams and subways, and that trips would be even longer [...] So I chose to bike, because I think it makes me more autonomous, which I find pleasant, I like it. But also I thought that [using public transit] would take more time than usual. » (Interview with Gaelle, translated)

« In any case, I don't own a car. So I took up Velo'v, because I had to wait a lot for the bus. And when the weather started to improve, I was reluctant to go back to taking the bus. » (Interview with Romain, translated)

Recent developments

100%

130%

80%

Année ● 2019 ● 2020

Année ● 2019 ● 2020

● Metro 2019 ● Metro 2020

Week 38

Week 38

Week 38

- Traffic is back to normal
- No visible increase regardless of area

- A boosted pre-crisis dynamic
- A visibly multi-use mode
- More defined peak-hours

- Usage has peaked at 80% for several weeks

What's next?

- We are entering a new phase of the health crisis management (6 weeks curfew)

- How to keep track of these evolutions?

→ Plans for further data collection:
  - Continue automatic data collection for traffic counts in 2021
  - Survey S2 is planned for the end of the year (?) + longitudinal survey based on S1 respondants

→ Collaboration and dialogue with local authorities (Grand Lyon and Sytral)
  - First thematic note (~40p.) on Public Transit use and mode split
  - Note 2 on remote working conditions and mobility
  - Note 3 on socio-spatial disparity and mobility
    + 4 p. notes to disseminate results to policy-makers

Thanks for your attention!
Any questions?