

# How the COVID-19 crisis will impact public transport in Europe?

## Feedback from European Public Transport Authorities and Public Transport Operators

2020, October 14<sup>th</sup>

# The lockdown has taken place at different intensities and in different contexts among European countries

Very strict and global approach

Local approach

 **France**

**Lock-down intensity**



**Lock-down approach**

- > **March 15<sup>th</sup>**: general closing of non-essential facilities and shops
- > **March 16<sup>th</sup>**: **general lock down with heavy restriction of movement** (need for the employer's attestation)
- > **May 11<sup>th</sup>**: progressive end of lockdown

 **Belgium**

**Lock-down intensity**



**Lock-down approach**

- > **March 10<sup>th</sup>**: access restrictions to retirement homes
- > **March 16<sup>th</sup>**: closing of schools, nightclubs, restaurants and bars
- > **March 18<sup>th</sup>**: **general lockdown**
- > **May 4<sup>th</sup> – June 8<sup>th</sup>**: progressive end of lockdown

 **Austria**

**Lock-down intensity**



**Lock-down approach**

- > **March 16<sup>th</sup>**: universities and schools closing, **general lockdown and curfew** except for necessary professional activities, purchases, assistance and activities outside with people from the same household
- > **April 14<sup>th</sup> – May 15<sup>th</sup>**: progressive end of lockdown with reopening of shops, hotels, restaurants and schools

 **Switzerland**

**Lock-down intensity**



**Lock-down approach**

- > **March 16<sup>th</sup>**: state of emergency, general closing of non-essential facilities and shops
- > **April 27<sup>th</sup> – June 8<sup>th</sup>**: progressive end of lockdown

 **Germany**

**Lock-down intensity**



**Lock-down approach**

- Different approaches between the Landers
- > **March 16<sup>th</sup>**: no strict lockdown but social distancing, no meeting of 2+ people except for people within the same household, non-essential shops, schools and universities are closed, bus travels are forbidden
  - > **April 20<sup>th</sup>**: progressive end of lockdown

# To understand the impact of COVID-19 on public transport, PMP & civity conducted a study among 5 European countries

## Scope of the study

### 5 European countries



### Focus on public transport

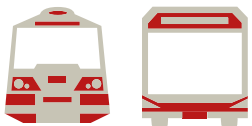


Public Transport Authorities (PTA)

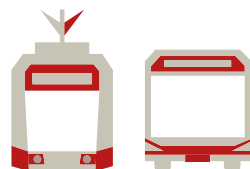


Public Transport Operator (PTO)

### Focus on intercity and urban services



Interurban transports



Urban transports

## Methodology

We conducted around **45 interviews** with public transport executives, completed by **analysis** and **modelling** (e.g. demand modelling in Germany conducted by civity).

### Our study addressed 4 thematics:

1. What happened during the first wave?
2. How is the ridership expected to evolve?
3. What are the impacts on the public transport business model?
4. How will the mobility ecosystem evolve?

## 1) What happened during the first wave?

# Sanitary measures were complex to implement but PTA and PTO quickly reacted in an agile way

### First days of the lockdown

A **brutal decrease** of traffic and ridership was observed, with big differences between urban and intercity services:

- › **Intercity services:** a traffic decrease of **90/95%** (not fully recovered at this stage),
- › **Urban services:** a traffic decrease of **40% to 60%**, recovered partially (in dense areas where the passengers are the most captive).

**Big difficulties were encountered at the beginning of the lockdown to implement service adaptations** for the remaining users (mostly workers of essential functions). Some PTA and PTO faced issues to **inform the passengers on the services modifications**.

### During the lockdown

Once crisis management was in place, **no larger issues were encountered to maintain the transportation plan**. Operational management was far easier during the lockdown than at its very beginning.

**Some actions were quickly engaged in an agile way. This can be capitalized in the future** (e.g. for a second wave):

- › Online reservations
- › Mandatory reservation for instance for regional trains
- › Ticket control before entering in station
- › Frequent cleaning of the rolling stock
- › Tactical urbanism (test and learn approach to adapt the roads in urban areas)

### Exit of the lockdown

**Big difficulties had to be addressed in order to implement the sanitary rules**, which were changing and sometimes were perceived as being too complex.

**Different approaches were observed in the studied countries, for instance:**

- › France had a global and strict approach (lots of restrictions on individual mobility, in particular the necessity to have an authorization from the employer)
- › Germany adapted local approach (less constraints on individual mobility)

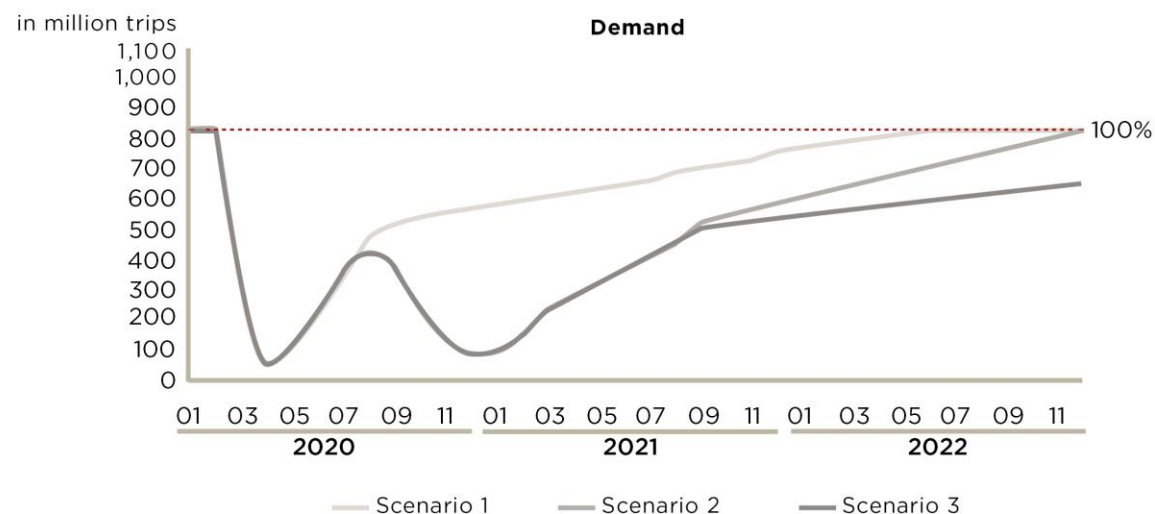
Approaches were heterogeneous and led to **questioning the relevance of the measures** with regards to their **impact on the image of public transport**.

## 2) How is the ridership expected to evolve?

No return to a nominal ridership before 2022 in urban areas, and maybe not before 2023 for intercity traffic

### How transport ridership could return to a nominal mode?

Analysis for Germany (based on civity demand model, analysis conducted mid-2020)



- › **Scenario 1:** return of the demand to its original level by the middle of 2022.
- › **Scenario 2:** second wave in fall of 2020 / end of 2020, leading to another shut-down and a major reduction of demand. It is after Christmas 2020 that the situation slowly improves. In a positive variation, demand catches up and reaches pre-Corona levels by the end of 2022.
- › **In a less optimistic scenario 3** the original level won't be achieved until after 2022.

### New trends will impact the ridership

It is likely there will be no return to a nominal ridership before 2022 for urban and dense areas where passengers are more captive and for 2023 for intercity and open access services.

**Big uncertainties are remaining regarding the transformation of the mobility sector:**

- › **New mobility** in urban areas, modal shift to car in more rural areas, lengthening of distances (people moving further away from their place of work)
- › **Less mobility:** off-site work, online retail, impact of economic crisis (unemployed people travel less)
- › Uncertainties related to **seasonal effects** and **possible partial or complete Corona lockdowns in the future**

### 3) What are the impacts on the public transport business model? (1/2)

## Public transport business model is at-risk all-over Europe

### The European countries reacted differently to support Public Transport

- › **In France: 4 bn€ deficit** in 2020, including 2.6 bn€ in Ile-de-France Region. Local support was implemented in the **Paris region**, but **there is no global recovery plan for now**.
- › **Short term substantial financial injections were adopted** in **Germany** (2.5 bn€ + increasing of DB equity) in **Switzerland** (CH: 800 millions) and in **Austria** (loans and guarantees).

### The financial gap is widening

The financial situation is going to worsen:

- › **Offers and services are almost back to normal levels** (costs are back)
- › But a **very low demand curve**, impacting **fare revenues and indirect revenues** (taxes).

Source : Interviews and press

### 3 key issues for public transport business model



1

How to **support the development** of Public Transport while **rationing the offer**?

2

To what extent should **more performance and productivity** be asked in **return for public aid** during the crisis?

3

How should the **distribution of risks between PTA and PTO** evolve?  
E.g.: question in Germany regarding the current development of "gross-contracts" (cost risks handled by the PTO)

### 3) What are the impacts on the public transport business model? (2/2)

Investments will need to be reprioritized, with digital and services on top of the agenda

#### Investments need to be re-prioritized

**CAPEX needs will remain high** and PTA/PTO could have difficulties to finance the future:

- › Renewing and developing new infrastructures, in particular for intercity and railway
- › Renewing fleets and fleet decarbonation to face the climate change challenges

Some **innovations and experimentations could be deprioritized:**

- › Autonomous vehicles
- › IA-based applications and services

The situation can be **very different from one context to an other**, depending on the financial situation and the debt capacities. However, there is the high risk that the crisis will **increase the gap between rural areas and well-endowed territories (urban areas)**.



#### A prioritization towards digital and service innovations



**In the future, new products and services** will be created to **fit more with the evolving needs:**

- › 2/3/4-days-a-week pass
- › Pay-as-you-go tickets
- › New fares policies

Working on these aspects will be very important to be prepared for the **“second wave”**.



**Digital** trend will be accelerated:

- › **Digitalization of operations and distribution** (through MaaS)
- › **Decrease of the cash-based payment** (in particular onboard)

These innovations allow the **improvement of services** at a **lower cost** compared to infrastructure investments.



#### 4) How will the mobility ecosystem evolve?

## Health crisis could lead to long-term changes in the mobility ecosystem

### Towards a market consolidation for mobility operators

It is very likely that the **global mobility ecosystem will evolve** after the COVID crisis with huge mergers & acquisitions activities. **Consolidation is highly possible**, particularly in open access services.

### Strategic moves are expected in the mass transit open access markets, as well as the new mobility markets:

- › Evolution in the **geographical footprint** to address more important and profitable markets
- › **Securing commitments** on contracts deemed too risky, or abandoning contracts
- › **Recapitalization to help getting through the crisis**

There is also a risk of **accelerating the bursting of the "new mobility" bubble**, with some exits already observed before the crisis.

### Towards a rise in the power of tech and data players

The **tech and big data giants could take up even more space** in the future thanks to their innovation capacities, data control and customer knowledge as well as their financing model (scale-up and start-up business model vs. low margin model for PTA and PTO).

According to PTA, the risk on their sovereignty, already high before the crisis (issues regarding the impact of tech and big data players on personal and collective mobility), is likely to increase in the future.

And, as the **financial constraints will be higher for PTO**, their capacities to innovate versus new entrants and tech giants is more than ever questioned. For PTO, tomorrow's challenge will be to **establish balanced relationships with the tech and data giants** in particular for digital distribution or fleet decarbonization. The **risk for the PTO to become commodities** is higher than before the crisis.



# PTA and PTO will need to address 3 big challenges to develop in an uncertain world

## 1 Challenge the organization and the competencies



- › How to **strengthen the agility** of the organization and of the operations?
- › Which **business and operational model**? How should **risks be shared between PTA and PTO**? What are the performance and productivity challenges?
- › Which **skills are becoming critical** (data science, digital, fleet decarbonation, etc.)?

## 2 Choosing the appropriate tools to decide



- › **Performance measurement and customer knowledge**: which tools to move towards a real time knowledge of all the mobility needs?
- › How to **use the data and to build interoperable data model and flows**?

## 3 Building a new purpose for mobility and another design of the network



- › How does COVID-19 challenge **mobility strategies**?
- › How to prioritize the **investments**? What initiatives need to be accelerated?
- › How to **make sure that the current actions allow to reach the objectives**?

More than ever, it is necessary to know the needs and uses of mobility in real time in order to adapt the mobility offer and services in an agile way

# Our recommendations to face the next months challenges



The COVID crisis is expected to last several months

A new form of the crisis, some experts name as the “second wave” is developing in Europe. And a “third wave” may come in the future.

Measures currently implemented to face the COVID development in Europe are **very different from the first wave.**

Indeed, the majority of European countries are **trying to adapt in a more agile and local way to balance personal liberties, economical impacts and the sustainability of the health system.**

## 4 key success factors

### Give visibility to the clients

- › **Build scenarios** to be prepared to adapt the offer in an agile way to the demand.
- › But, **dot not implement an offer that is too variable** in order to keep reliability for the clients.

### Adapt the risk sharing model

- › At a short term, PTA might have to directly cover the **ridership and cost risks** as some PTO will not be able to manage them (or they will charge the risks back to their PTA).

### Optimize the short and mid-term business model

- › Optimize the production thanks to **the peak hour clipping**, leading to a reduction of public transport costs.
- › Some **renunciations** regarding the transportation plan seem unavoidable in order to adapt to the financial constraints (but not too low as it could strongly decrease demand).
- › **Transferring services from rail to road, or from coach / bus to transport on demand** could allow to reduce the offer (and thus the cost structure) and hence adopt it to the ridership evolution.

### Work on new financing models

- › **Investments and budgets need to be prioritized and closely monitored** to check the crisis action plan is really focused on the key issues.
- › PTA needs to **secure or develop their indirect revenues.**
- › While the interest rates are still low, the recourse to **indebtedness** and/or to **financing from private actors** (e.g. public-private partnership) could be essential tools to **maintain** the level of service and **modernize** the public transport networks and fleet, adapting them to the climate change challenges.

Make tomorrow  
today

---

# Contact



Lionel Chapelet  
**Principal**

---

lchapelet@pmpconseil.com  
+33 (0)6 29 05 54 34

Arsène Ruhlmann  
**Consultant**

---

aruhlmann@pmpconseil.com  
+33 (0)7 86 74 75 63

Raphael Guillemont  
**Senior Manager**

---

rguillemont@pmpconseil.com  
+33 (0)6 45 80 55 27

**civity** Management  
Consultants

Friedemann Brockmeyer  
**Partner**

---

friedemann.brockmeyer@civity.de  
+49 160 740 56 56

Frank Zschoche  
**Partner**

---

frank.zschoche@civity.de  
+49 171 77 11 790