COVID-19
Online Discussion Session
Impact of COVID-19 on urban transport

3 June 2020, 13 h (Paris time)
Our Speakers today

- Patrick Malléjacq – Secretary General, PIARC
- Dipl Ing Tommaso Bonino, SRM, Bologna, Italy
- Prof. Lei Zhang, USA, Univ. of Maryland, USA
- André Broto, Strategic Theme Coordinator for PIARC Theme 2- Mobility
- Andrea Simone, Chair, PIARC Technical Committee 2.1 on Mobility on urban areas
- Karen Vancluysen, Secretary General, POLIS Network
- Dionisio Gonzalez, Director of Advocacy and Outreach, UITP
Basic rules for Zoom online meetings

There will be presentations so be sure to access from a device that allows you to see visuals (i.e., a laptop or iPad).

Please mute yourselves and keep the video off during the presentations to avoid background noises and connection overload.

Use the chat functionality and ask questions at any time. We will collect them and direct them during the Q&A session.

Please be sure to have your full name and country displayed, here you find some useful information:

To change your name after entering a Zoom meeting, click on the “Participants” button at the top of the Zoom window.

Next, hover your mouse over your name in the “Participants” list on the right side of the Zoom window. Click on “Rename”.

Enter the formula Name, Surname (FR) and click on “OK”.

Patrick, Mallejacq (FR)

Use the chat functionality and ask questions at any time. We will collect them and direct them during the Q&A session.
Participants' microphones and cameras must be turned off.
How to ask a question, raise an issue, or share a practice?

- This is strongly encouraged!

- Use the “Chat” feature of Zoom (bottom right of the main window)
  ⇒ Send a message to “All participants” (this is one of the “chat” options)
- Note: only questions that are specific to roads or road transport

- That channel is monitored by Christos Xenophontos (Chair of PIARC TC 1.1)
- Christos will raise the questions to relevant panelists
About your name in Zoom

- We recommend that participants accurately name themselves in the Zoom application:
  - First Name Last Name Country

- This fosters interaction between participants
This session is being recorded

- The resulting video will be shared on www.piarc.org
Disclaimer

Since time is of the essence, it is likely that knowledge and practice that is shared will not have been officially approved by each country’s official authorities.

“The ideas and examples shared here are for illustration only. They do not necessarily represent official policy. Ideas presented will be subject to further evaluation and use in deriving recommendations on policy and practice in due course. While care has been taken in the preparation of this material, no responsibility is accepted for any damage that may be caused.”
Key Concept: Focus on the short-term. The world is going through a crisis and every day counts.

- Share knowledge and current practice between PIARC members urgently in order to support responses to the pandemic in near real-time.
- Such knowledge and current practice are not yet confirmed as valid or effective, and what works in some parts of the world may not be relevant elsewhere.
- However, inspiration can be found anywhere, and a good idea now could save lives, improve business resilience and could minimize disruption of services.

- Note: In parallel, PIARC is planning medium- and long-term actions for when the pandemic is in a manageable state and substantially under control.
PIARC COVID-19 Response Team

Summary Terms of Reference

- To explore rapid sharing of knowledge and practice between PIARC members in respect of COVID-19 & associated socio-economic crisis
- To propose and implement short-term actions to support PIARC members and transport professionals in mitigation and response
- To track the course of COVID-19 over time and advise on further actions to be taken by PIARC and others during the crisis and into the recovery
- To advise on medium- and long-term implications of COVID-19 on the roads and transport sector and how these should be tackled and studied

Currently established to 1st December 2020, extendable as required

Current Membership

- Patrick Mallejacq, Secretary General, PIARC (Chair) (FR)
- Christos Xenophonotos, Rhode Island DOT, TC 1.1 Chair (USA)
- José Manuel Blanco Segarra, Ministerio de Transportes, Movilidad Y Agenda Urbana, TC 1.1 Spanish Secretary (ES)
- Jonathan Spear, Atkins Acuity, TC 1.1 WG 2 Leader (UAE/UK)
- Valentina Galasso, Deloitte Consulting, TC 2.4 Chair (IT)
- Yukio Adachi, Hanshin Expressway Engineering Co, TC 1.5 Chair (JP)
- Saverio Palchetti, ANAS S.p.A., TF 3.1 Chair (IT)
- Caroline Evans, Arcadis Australia Pacific, TC 1.4 Chair (AU)
- Martin Ruesch, Rapp Trans Ltd., TC 2.3 Chair (CH)
- Andrea Peris, Paraguay National Committee (PY), Comm. Commission

For more information, contact info@piarc.org
Agenda and Structure

- Brief introduction to PIARC
- Issues faced by Road Operators and Administrations
- Panelists’ Presentations
  - COVID-19 ‘PHASE >1’: Urban Mobility Beyond Public Mass Transport …
  - An Interactive COVID-19 Impact Analysis Platform for Situational Awareness and Decision Support
  - Impact of the COVID-19 crisis on transport in large metropolitan areas in the short and medium term
  - Create livable urban spaces and COVID-19 Crisis Response: the case of Milan and Bologna in Italy
  - Opportunities and threats for urban mobility in the aftermath of COVID-19
  - Cities For People: Building Back Better Through Sustainable Urban Mobility Strategies
- Q&A
- Conclusion and Next Steps
Our Speakers today

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Introduction

What is PIARC?
What is PIARC?

- PIARC is the new name of the World Road Association
- We were founded in 1909 as a non-profit, non-political Association
- Our goal is to organise exchange of knowledge on all matters related to roads and road transport
PIARC’s Four key missions

- Be a **leading international forum for analysis and discussion** of the full spectrum of transport issues related to roads and related transport;
- Identify, develop, and disseminate **best practice** and **give better access to international information**;
- Consider within its activities the needs of **developing countries and countries in transition** fully; and
- Design, produce, and promote **efficient tools for decision making** on matters related to roads and related transport.
- The Association mobilizes the expertise of its members
- Through operations guided by a **4-year Strategic Plan**
COVID-19

Issues faced by Road Operators and Administrations
PIARC has tentatively structured the situation around Six Key Issues

- Issue 1: Ensuring employees’ health and safety in general
- Issue 2: Maintaining activity and business continuity
- Issue 3: Impact on transportation
- Issue 4: Business Relations
- Issue 5: Customer and stakeholder relations and joint working
- Issue 6: Security

They were presented in more detail during our previous webinars.
Two synthesis Notes are available

- These Notes present the emerging findings from the first Webinars.
- They are relevant for the road community and may be useful to inform planning and operational decisions that have to be made on the ground urgently.
- Available from www.piarc.org
  - Free
  - In English, Spanish and French
Transport demand will be affected?

COVID-19 ‘PHASE >1’: URBAN MOBILITY BEYOND PUBLIC MASS TRANSPORT …

Tommaso BONINO

Online …

June 2020
by Tommaso BONINO

- Technical Manager at SRM – Reti e Mobilità Bologna, Italy
- Member of the UITP “Organising Authorities Committee”.
- Member of the Federmobilità “Comitato tecnico”.
- Member of the PIARC international committee TC 2.1, “Mobility in urban areas”.
“The COVID-19 health crisis has led to thousands of Londoners losing their lives with grief, anxiety and anguish touching too many lives. Many businesses and livelihoods have been adversely affected. It has also had a profound impact on public transport in London – and will continue to do so long into the future.

[...] In London, we are examining very carefully how, when the time is right, we could gradually restore services to as close to pre-COVID-19 levels as possible, safely, within the constraints imposed by staff sickness, shielding and self-isolation. But I want to be honest – no one should expect to see a swift return to how it was before the crisis. The likely requirements for social distancing will simply make this impossible.

It’s an inescapable fact that no mass transport system of the scale we have in London can operate at full capacity while maintaining social distancing at all times; even with Tube ridership standing at just five per cent at the moment, there are times when passengers struggle to keep their distance.

[...] crucially, the Government must agree a proper funding package for TfL. One of the many consequences of the lockdown is that despite TfL being in a strong financial position before the crisis, it is now facing an unprecedented financial crisis. [...] London is the only major city in Western Europe that runs without a Government grant for day-to-day transport operations: we are in constructive talks with ministers about the urgent financial support TfL needs, but time is running out”.

(Sadiq KHAN, Mayor of London, UK)
No mobility, no issues!

RETIE MOBILITÀ
Global scenario mobility trends …
Local scenario mobility trends ...

Private traffic -75%

Cycling -70%

Car-sharing -80%

Parking on streets -100%

PT -90%
First: focus on PT. Data.

«Phase 1» working: 53%; smart-working: 34%; means 35% on SUMP data:

PT loosing 88% of users, 80% AM-peak (20% remains); 87% PM-peak

<table>
<thead>
<tr>
<th>Urban bus Bologna</th>
<th>pre COVID-19</th>
<th>during COVID-19 -- 35%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trip purpose</td>
<td>2h peak AM</td>
<td>2h peak PM</td>
</tr>
<tr>
<td>Going to work</td>
<td>22.831</td>
<td>9.929</td>
</tr>
<tr>
<td>Shopping, errands</td>
<td>3.941</td>
<td>8.464</td>
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<tr>
<td>Going to school/university</td>
<td>10.757</td>
<td>2.071</td>
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<tr>
<td>Sports/freetime</td>
<td>487</td>
<td>4.391</td>
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<tr>
<td>Visiting relatives/friends</td>
<td>526</td>
<td>1.689</td>
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<tr>
<td>Health/selfcare</td>
<td>1.498</td>
<td>1.249</td>
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<tr>
<td>Work transfer</td>
<td>996</td>
<td>1.537</td>
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<tr>
<td>Accompanying adults</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Others</td>
<td>745</td>
<td>739</td>
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<tr>
<td>Bureaucratic procedures</td>
<td>-</td>
<td>76</td>
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<tr>
<td>Accompanying pupils</td>
<td>266</td>
<td>-</td>
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<tr>
<td>Totale complessivo</td>
<td>42.047</td>
<td>30.146</td>
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</tbody>
</table>
Social/sanitary distancing is not over at all …
Social/sanitary distancing is not all …
Social/sanitary distancing is not all …

CONSUMERS TEND TO USE MORE PRIVATE CARS AND LESS PUBLIC TRANSPORTATION

<table>
<thead>
<tr>
<th>Before Coronavirus Outbreak</th>
<th>After Coronavirus Outbreak</th>
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</thead>
<tbody>
<tr>
<td>Private Car</td>
<td>34%</td>
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<tr>
<td>Two-wheeled Vehicle</td>
<td>45%</td>
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<tr>
<td>Bus/Metro</td>
<td>56%</td>
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<tr>
<td>Taxi</td>
<td>21%</td>
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<tr>
<td>Car hailng</td>
<td>21%</td>
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<tr>
<td>Car sharing/Car rental</td>
<td>3%</td>
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</tbody>
</table>

Total respondents (N=1620)

**New York City breaks record: 58 straight days with no pedestrian deaths**

*This is the longest stretch since NYC began tracking pedestrian deaths in 1983.*

Tuesday May 2020, 12:00 PM EDT

# New York City breaks record: 58 straight days with no pedestrian deaths

This marks the longest stretch since the city began tracking pedestrian fatalities in 1983, according to ABC News New York City station WABC.
Social/sanitary distancing in public transport ...

Moving around during the COVID-19 outbreak

Whenever feasible, consider riding bicycles or walking.

This provides physical distancing while helping you meet the minimum requirement for daily physical activity, which may be constrained during increased teleworking and limited access to outdoor and other recreational activities.

La movilidad es de todos

Recuerda que los únicos que pueden movilizarse en los Sistemas Integrados de Transporte Masivo, son las personas exceptuadas en el decreto 487 de 2020.

Mohamed Mezghani @MedMezghani - 24m
In Hong Kong, safe distancing is not imposed in public transport but MTR operates with peak hour schedule all day long to avoid crowded trains. Some travellers prefer buses, perceived safer because they run in non-confined environment, though disinfection standards are the same.

Mohamed Mezghani @MedMezghani - 18h
Could someone explain why is it commonly accepted in most Asian public transport systems to lift the social distancing condition without even making masks compulsory while in Europe, politicians want to have both distancing and masks compulsory. Isn’t it the same virus?

Mohamed Mezghani @MedMezghani - 2h
Physical distancing in public transport may mean the end of sustainable mobility

Physical distancing in public transport may mean the end of sustainable mobility linkedin.com
Social/sanitary distancing in public transport …

### SONDAGGIO RAPIDO

**How do you estimate your max. capacity with safe distance requirements?**

Risultati sondaggio:

1. Less than 20%  
   - 12%
2. 20-30%  
   - 32%
3. 30-40%  
   - 18%
4. 40-50%  
   - 18%
5. more than 50%  
   - 20%

### SONDAGGIO RAPIDO

1. Do you see the safe distancing (1,5m) as feasible in your PT network?

Risultati sondaggio:

1. Not at all  
   - 48%
2. Only outside vehicles  
   - 39%
3. Yes, everywhere  
   - 13%
First: focus on **PT** Measures.

Segregated driver; specialised doors; specialised seats; no-sell, no-info onboard; DPI needed; air conditioning; disinfection.

Who controls? The driver can skip stops?
Essential interventions in public transport:

- sanitization;
- driver protection;
- information and restraint;
- space onboard and seats management;
- …
Essential interventions in public transport:

- ...;
- in&out directives;
- controls.

Seguire le regole è una sana abitudine.

Usa sen la masc
Always use a face mask

Mantien a bordo
Respect on board

Mantien in attesa
Respect while at station

Lascia scendere prima di salire sui mezzi
Let passengers off before boarding

Occupa lo spazio più libero
Occupy all available space

Viaggiamo responsabilmente.

Stay home
Don't travel
Save lives

World Road Association • Association mondiale de la Route • Asociación Mundial de la Carretera • www.piarc.org
Re-shaping local infrastructures ...

Greta Thunberg
@GretaThunberg

“Milan is to introduce one of Europe’s most ambitious schemes reallocating street space from cars to cycling and walking, in response to the coronavirus crisis.”

theguardian.com/world/2020/apr...

Milan announces ambitious scheme to reduce car use after lo...

Coronavirus-hit Lombardy city will turn 35km of streets over to cyclists and pedestrians

theguardian.com

26.1K 1:38 PM - Apr 21, 2020

The Guardian

Interruzione della strada alle auto

Interruzione della strada alle auto
Re-shaping local rules (1)...

Rosa Alarcon / @rosaalarcon

Barcelona tiene que prepararse para la fase del desconfinamiento, la movilidad será uno de los principales retos. (Fil 🍁)

Traduci il Tweet

8:34 PM - 25/04/20 - Twitter for iPhone
Re-shaping global rules (2) ...
1. Data set includes global top 5000 companies by market cap in 2019, excluding some subsidiaries, holding companies and companies who have delisted since.

Source: Corporate Performance Analytics, S&P Capital IQ, S&P

McKinsey & Company
Thank you for your attention!

Tommaso BONINO
SRM – Reti e Mobilità, Technical Manager
tommaso.bonino@srmbologna.it
data.covid.umd.edu

An Interactive COVID-19 Impact Analysis Platform for Situational Awareness and Decision Support

Lei Zhang
Herbert Rabin Distinguished Professor of Civil Engineering
Director, Maryland Transportation Institute
University of Maryland
Email: lei@umd.edu; Institute website: mti.umd.edu
Leader in Transportation and Mobility Data

Serving >12,000 government and corporate users in all 50 state and D.C.
Anonymized Data from >50% of Mobile Devices

Travel Modes
Gray: Driving
Green: Rail
Purple: Air
Red: Bus
Yellow: Bike/Walk
Methodology for Mobile Device Data Processing, Imputation, and Weighting
Public COVID-19 Platform and Media Coverage
Social Distancing Index based on Mobility Metrics

Social Distancing Index by State
February 20’-May 22 data from: data.covid.umd.edu
“X” indicates statewide stay-at-home order date, “R” indicates phase 3 partially reopening date.

1. Pre-Pandemic
   No Social Distancing

2. Behavior
   Change

3. Government Orders
   and Holding Steady

4. Quarantine
   Fatigue

5. Partial Reopening

High Level of Social Distancing

Low Level of Social Distancing
Percent of Workers Working from Home by State

February 24~May 22 data from University of Maryland COVID-19 Impact Analysis Platform data.covid.umd.edu

Graph displays workday data only for each state daily.

“X”s indicate statewide stay-at-home order dates.

“R”s indicate initial partially reopening dates.
Recognizes reopening is a political decision that needs decision support;  
Uses 16 metrics to comprehensively evaluate reopening readiness;  
Key health factors are checked against established gating criteria;  
Compares a state or county with the rest of the nation to see if it is more or less ready for reopening;  
Plots daily trend to see if a state or county is doing better or worse over time for each reopening factor.  
Assessment with all data in one place and done within a minute.
Data and Platform Use Case Summary

- Reopening decision support
- Traffic and travel behavior monitoring
- Miles traveled and revenue analysis
- POI visit trends
- Input for epidemic modeling
- Hotspot monitoring for all POIs
- Outbreak prediction and early waning
- Real-time community contact tracing
- Local containment strategies
- External trips and imported cases
- Economic and job impact tracking
- Monitor economic recovery progress
Specific Use Cases at Federal Governments

- **Department of Transportation**
  Travel monitoring: daily #trips by distance bands by state and county.

- **Center for Disease Control**
  Integrate mobility and social distancing data into epidemic models for prediction of future cases and death.

- **Department of Veterans Affairs**
  Use SERA tool and its metrics to help determine when to reopen certain VA facilities in specific states and counties.

- **Department of Treasury and Federal Reserve Bank**
  Use mobility and economic metrics on platform for economic and financial impact analysis.
Trip and Travel Distance Trends


- 2017 NHTS
- Feb. 2020
- Mar. 2020
- Apr. 2020
- May 2020

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Activity Duration and Time Use Trends

- Arrival time and activity duration distributions for shopping trips
Point of Visit Trends by POI Category and Location

Daily Visits to Educational Institutions and Banks
February averages are normalized to 100

Educational Institutions Visits

Banks
External Travel Monitoring

Example: Following 4/24 partial reopening in Georgia

% staying home: down by 32%.
Distance traveled/person: up by 19%.
# non-work trips: up by 24%.
Out-of-state trips to GA: up by 13%.

<table>
<thead>
<tr>
<th>State</th>
<th>Daily Trips After Reopening</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>140,910</td>
<td>14%</td>
</tr>
<tr>
<td>SC</td>
<td>135,707</td>
<td>12%</td>
</tr>
<tr>
<td>TN</td>
<td>118,606</td>
<td>11%</td>
</tr>
<tr>
<td>FL</td>
<td>97,483</td>
<td>17%</td>
</tr>
<tr>
<td>NC</td>
<td>27,748</td>
<td>11%</td>
</tr>
<tr>
<td>KY</td>
<td>5,217</td>
<td>10%</td>
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<tr>
<td>MS</td>
<td>3,962</td>
<td>10%</td>
</tr>
<tr>
<td>VA</td>
<td>2,768</td>
<td>11%</td>
</tr>
<tr>
<td>TX</td>
<td>1,599</td>
<td>10%</td>
</tr>
<tr>
<td>IL</td>
<td>1,446</td>
<td>-4%</td>
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<tr>
<td>All States</td>
<td>546,159</td>
<td>13%</td>
</tr>
</tbody>
</table>

Travel to Georgia by State: Top 10 States

Daily Out-of-State Trips to Georgia

Reopening
Correlation b/w Imported Cases and COVID Cases

Number of Imported Cases by Out-of-State Travel to Maryland

Prince George’s County

<table>
<thead>
<tr>
<th>County</th>
<th>Imported COVID-19 Cases</th>
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<tbody>
<tr>
<td>Prince George’s County, Maryland</td>
<td>150</td>
</tr>
<tr>
<td>Baltimore County, Maryland</td>
<td>150</td>
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<tr>
<td>Frederick County, Maryland</td>
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<td>Montgomery County, Maryland</td>
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<td>Anne Arundel County, Maryland</td>
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<td>Harford County, Maryland</td>
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<td>Carroll County, Maryland</td>
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<td>Allegany County, Maryland</td>
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<td>Washington County, Maryland</td>
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<td>Worcester County, Maryland</td>
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<td>Harford County, Maryland</td>
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Number of Confirmed COVID-19 Cases in Maryland

03/16-04/22

03/16-04/22
Hotspot Monitoring and Outbreak Warning

Baltimore County, MD

- For hotspot monitoring, the platform uses anonymized data to automatically monitor daily visits to more than 6,000 locations.

- For outbreak risk prediction, the platform uses number of visits, origins of visits, and COVID infection rates at origins together to predict high-risk locations for new outbreaks and suggest preventative measures.
POI Visit Trends for Outbreak Risk Prediction

- Daily visits to selected POI types in the Baltimore County

Temporal trend of visit counts by 17 facility types
External Trip Analysis for Outbreak Risk Prediction

• Out of County trip end hotspots for Baltimore County

Trip Destinations

Trip Origins
Contact Tracing and Local Containment

• Minutes after a new outbreak, we can use privacy-protected mobile device data to conduct aggregate, community-level contact tracing and recommends localized quarantine areas. This complements traditional, individual-level contact tracing that takes much longer to complete.

• For instance, the pleasant view nursing home outbreak appeared to be correlated with non-employee visits 10 days before the outbreak.
Economic/Job Impact and Policy Decision Support

- Change in consumption, % working from home, and number of visits to individual business types.
- Monitor economic recovery progress and provide decision support.
- Guide the design and implementation of economic stimulus policies for effectiveness.

% working from home by state and county-level impact of COVID-10 on retail trade, hotel, food and drink, entertainment, and recreation businesses.
Changes in Visits to Consumption Sites

% Change in Visits to Consumption Sites by State

February 24 – May 22 data from: data.covid.umd.edu

"X" indicates statewide stay-at-home order date, "R" indicates phase 1 partially reopening date.

1. Pre-Pandemic
   No Social Distancing

2. Behavior Change

3. Government Orders
   and Holding Steady

4. Quarantine Fatigue

5. Partial Reopening

Increase in % change in consumption

Reduction in % change in consumption
Next Steps

- Trips by travel modes (air, rail, bus, driving, walk, bike, and other)
- Origin destination travel patterns
- Daily/weekly updates on economic and job impact for each county by economic sector including job loss/gain by sector
- Integration of mobility data, travel model, and epidemic model for public health policy scenario analysis, reopening scenario analysis, optimization, and decision support
Impact of the COVID-19 crisis on transport in large metropolitan areas in the short and medium term

André BROTO
ST2 Coordinator
Chair of PIARC France
Paris
3 june 2020
Summary

- Perimeter: why « transport in large metropolitan areas »?
- Mobility trends in France in the last decades
- From Lock Down to re-opening
- From Lock Down to a new mobility?
- What about the rôle of « ST 2 Mobility »?
Perimeter: why « transport in large metropolitan areas »?

- Urban areas can not survive without their hinterland: they need goods and workforce coming from the periurban or rural areas.
- People living in periurban or rural areas need an efficient access to the services delivered by cities (jobs, education, culture, welfare, …)

All those people use transport facilities within the urban area / City.
An example: Paris and its hinterland

- Paris
  - 86 km²
  - 2.2 million inhabitants

- « Ile de France » region
  - 12 000 km²
  - 12 million inhabitants

- The commuting area of Paris is bigger than the Ile de France region
Mobility trends in France in the last decades
Mobility trends in France from 1994 to 2008

- Trends between national transport inquiries in 1994 and 2008 (all national transport modes)
  - Short daily trips (less than 80 km)
  - Long trips (more than 80 km)

<table>
<thead>
<tr>
<th>Mobility trends daily short distance trips</th>
<th>1994</th>
<th>2008</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance per person and per day</td>
<td>23,1</td>
<td>25,2</td>
<td>9%</td>
</tr>
<tr>
<td>average length per trip</td>
<td>7,3</td>
<td>8,0</td>
<td>10%</td>
</tr>
<tr>
<td>Number of trips per day</td>
<td>3,16</td>
<td>3,15</td>
<td>0%</td>
</tr>
</tbody>
</table>

" + 0,7% per year 
" More far "

<table>
<thead>
<tr>
<th>Mobility trends for long distance trips (voyage)</th>
<th>1994</th>
<th>2008</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance per person and per year</td>
<td>5232</td>
<td>6020</td>
<td>15%</td>
</tr>
<tr>
<td>average length per trip</td>
<td>947</td>
<td>944</td>
<td>0%</td>
</tr>
<tr>
<td>Number of trips per year</td>
<td>5,53</td>
<td>6,38</td>
<td>15%</td>
</tr>
<tr>
<td>Number of nights per trip (duration)</td>
<td>5,0</td>
<td>4,2</td>
<td>-16%</td>
</tr>
</tbody>
</table>

" + 1% per year 
" More often, Less time "
Average length of commuting trips in Île de France (Paris region) from 1975 up to 1999: “more far”
Other trends in transportation in France

- **Modal split:**
  - At a national level and despite a policy giving a strong priority in investments in favor of public transport since 2006 at a national level there is
    - No change in the modal split for passengers
    - A worsening of the modal split for freight (more lorrie’s and less trains)

- **Costs of mobility (daily short trips):**
  - Increasing costs of the private car for the user
  - In average decreasing costs of the public transport for the user
  - In average increasing costs of public transport for the cities budgets

- A lot of projects are abandoned due to an increasing lack of public support
Modal split public transport / private transport among motorized trips: from 80% of public transport in the center to 20% in the suburbs and in the periurban area.

- The benefits delivered by public transport are concentrated in cities centers.
Trends on costs of mobility: increasing lack of «social equity» and “yellow jackets” (or “yellow vests”) protests
Covid-19 and urban transport in Spain (by Andrés Monzon de Caceres 5 May 2020)

We already have the experience of the 2007-13 economic crisis:
- Public Transport demand decreased
- Urban sprawl increased
- Car dependency increased
- Economic, social and environmental costs increased

Economic Crisis (2007/13):
- Public Transport demand decreased

Urban Dispersion (2002/17):
- Car use and long trips increased

Economic crisis
- Corona Metr Population
- GDP/habitant
- Central City
- TP Demand
- Demand TP/persog

Graph showing the increase in urban dispersion from 2002 to 2017, with a peak in 2013, and the decrease in public transport demand during the economic crisis.
From Lock Down to re-opening

- Reopening in France started on May 11th 2020
- Principle: Getting the economy back on track without triggering a second outbreak
Reopening of public transport in France (Webinar institut Montaigne by Thierry Mallet CEO TRANSDEV may 2020)

- Some figures under the distancing constraints
  - The capacity of a bus is reduced from 80 passengers to around 20 passengers
  - the offer of transport was in between 80 and 100%
  - Operating costs are bigger due to sanitary constraints
  - The demand was around 20 and 30%

- Revenue losses of public transport for all French cities are expected to reach 4 to 5 billion euro. Main reasons are the following:
  - Less demand (unemployment, remote work, …)
  - Distancing measures and reduction of bus or train capacities
  - Sanitary measures / increasing operating costs
Lockdown has shown us that we can change our habits

- The boundaries between home and work, or between home and business have shifted
  - This is an opportunity to modify the traffic demand in the peak hour
  - But it can also lead to an increased urban sprawl and to an increase of “long distance trips”

- The understanding that freight is important for cities is better
  - This is an opportunity to optimize logistic investments in relation with big urban areas

- The understanding that there was an increasing lack of social equity is better
  - This is an opportunity to re-equilibrate the offer of public transport, and / or the cost of mobility for the users, between city centers and peripheries

- The willingness of cities to develop active pedestrian and bicycle facilities is better

- The willingness of rural communities to develop carpooling is better

- Ect …
New willingness of cities in favor of bicycle facilities (CEREMA Sandrine Rouzic)
From Lock Down to a new mobility ?
Covid_19 is also an opportunity for replacing « old ways of doing things by new ways ” (French case to discuss)

- Develop remote working and other benefits of digital transition
- Develop bicycle services, paths, and financial support
- Reallocate public transport services from very short trips (0 to 5km) in City centers to medium distance trips in periurban areas
  - For very short trips replace bus services by bicycle equipment's
- Focus on multimodality (transport more and better with the existing networks)
- Change the policy of public transport fares from a “flat system” (you can use public transport as much as you want for the same fare) to a “you pay as you use” system
- Ect .....
CEREMA has published guides to promote cycling and to test temporary facilities.

What about the rôle of « ST 2 Mobility » ?
Before the Covid_19 we said: Let’s always keep in mind the broad goals for the community

- The roads and road transport fields are constantly evolving in response to large social, economic, and environmental shifts.
  - Climate change and the need to reduce emissions of greenhouse gases
  - extreme weather events
  - urbanization trends
  - Social expectations

- Roads are the dominant national asset

- growing pressure on financing capacities

- Financing and managing risks for creating, renovating, and maintaining road assets are priorities in transportation.
After the Covid_19 we should add: Social expectations are more and more important

- We should:
  - Focus not only on vehicles or roads but on people needs and expectations
  - Focus not only on traffic demand but on people mobility (all modes) demand
  - Focus on changes in mobility trends and people behavior
  - Focus on trends of public support to new transportation policies

- Those remarks are specially important for
  - TC 2.1 Mobility in urban, areas, and
  - TC 2.2 Mobility in rural areas
Thank you for your attention!

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World Road Association (PIARC)
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www.piarc.org
Create livable urban spaces and COVID-19 Crisis Response:
the case of Milan and Bologna in Italy

Andrea SIMONE
Chair, PIARC Technical Committee 2.1 on Mobility on urban areas
Professor, DICAM Department, Alma Mater Studiorum University of Bologna

Online webinar on the COVID crisis
3 June 2020
Phase 1 - From 8th in March to 4th in May

Lockdown

A pause has been forced on urban life

Quiet roads, empty skies, deserted high streets and parks, closed cinemas, cafés and museums – a break in the spending and work frenzy so familiar to us all.

The reality of lockdown is making ghost towns of the places we once knew.

Everything we know about our urban world has come to a shuddering halt.
Phase 2 – after 4th in May

Post - Lockdown

Urban life will begin to hum again to the familiar rhythms of work, leisure and shopping.

After coronavirus, a key question emerges: what in essence, is a city for? Is it to pursue growth, attract inward investment and compete against global rivals? Or is it to maximise quality of life for all, build local resilience and sustainability?

These are not always mutually exclusive, but it’s a question of regaining balance. Beyond politics and ideology, most people simply want to be safe and healthy, especially faced by future threats, be they climate, weather or virus related.
Phase 1 - From 8th in March to 4th in May

**Lockdown**

Now, the lockdown has thrown us all into a real-time laboratory full of living examples of what a more sustainable future might look like.

Streets with fewer cars have shown people what more liveable, walkable neighbourhoods would look like.

**Accessible, affordable, zero-carbon, mobility services and public transport is key to supporting a less car dependent urban future.**
Bicycle as a post-emergency transport solution

Possible problems
- Coronavirus emergency and mode of transport

Possible solutions
- Sustainable travel modes
  - Urban road occupancy
  - Risk for all users
  - Air and noise pollution

Car

Risk for all users
- Sustainable travel modes
Decree Law: «relaunch Italy» 19 May 2020

- Mobility bonus equal to 60% of the expenses to buy bikes, e-bikes and electric scooter (max 500 euros)
- Changes in the Road Code: New definitions: advanced house stop lanes and cycle lane
- Changes regarding the role of the Mobility Manager (schools, company, association, etc.)
- Protective measures for railway and public transport commuters
Phase 2 – after 4th in May
Decree Law: «relaunch Italy»
19 May 2020

Italy: new sustainable mobility plan – bike lanes

<table>
<thead>
<tr>
<th>City</th>
<th>Km Bike lanes Phase 1</th>
<th>Km Bike lanes Phase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milan</td>
<td>220</td>
<td>406</td>
</tr>
<tr>
<td>Bologna</td>
<td>248</td>
<td>969</td>
</tr>
<tr>
<td>Florence</td>
<td>66</td>
<td>108</td>
</tr>
<tr>
<td>Naples</td>
<td>21</td>
<td>184</td>
</tr>
<tr>
<td>Palermo</td>
<td>48</td>
<td>155</td>
</tr>
<tr>
<td>Bari</td>
<td>45</td>
<td>202</td>
</tr>
</tbody>
</table>
**Phase 2 – after 4th in May**

**Post - Lockdown**

**Italy: Sustainable Mobility – New Bike lanes**

- **Bologna**: 493 km (60% at the end of 2020)
- **Milan**: 35 km (22 km under construction)
- **Rome**: 24.5 km (under construction)

**In Italy 80% of trips take place in the city within a 5 km radius but few use the bike:**

- Bozen 30%
- Bologna 9%
- Milan 7%
- Rome 1%
“Strade Aperte” project – “Open Roads” project

In Italy, on **May 4, Phase 2 began**, earlier than the rest of the Western countries: for this reason, the country represents the “proving ground” for the development of new urban strategies.

In Milan, in order to guarantee physical distancing, the Milan 2020 adaptation strategy was first implemented, from which the “Strade Aperte” project was then derived. This brings together a set of almost immediate actions including the construction of 35 km of cycle paths, 22 of which will be completed by this summer.

On average, the inhabitants travel 4 km to go to work, a much shorter distance compared to large European cities. The project is the result of the collaboration between the councillor for Mobility and Environment Marco Granelli, and Pierfrancesco Maran, councillor for Urban Planning, Green and Agriculture.
MILAN

“Strade Aperte” project – 22.7 km under construction

Corso Venezia

Before

After
MILAN

“Strade Aperte” project

Corso Buenos Aires

Before

After

4.3 m  2 m  8.5 m  8.6 m  2 m  6.7 m

4.3 m  2 m  1.8 m  2 m  3.8 m  3.9 m  2 m  1.8 m  2 m  6.7 m
MILAN

“Strade Aperte” project

Viale Monza

Before

After
BOLOGNA

Stalingrado Road

Open Roads - “there is hunger for space”

Before

After
BOLOGNA

Saragozza Road

Before

After
BOLOGNA

Toscana Road

Before

After
BOLOGNA

Malvasia Road

Before

After
CONCLUSIONS – CREATE LIVEABLE URBAN ROADS

The adaptation of the urban road environment to the health crisis can be a stimulus to a more radical, far-sighted and dialogic urban renewal.

Building active travel networks across regions also makes more sense than ever. Bikes have been seen by many places as better options for getting around.

Walking and cycling infrastructure can play a huge role in getting people around effectively and also making them healthier.

We often take the allocation of urban space as a given; hard concrete, we might assume, merely reinforces the normal order of things. But cities have more space available for pedestrians and cyclists and various forms of micromobility than we might think.
Thank you for your attention!

Andrea SIMONE
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2.1 on Mobility on urban areas
Professor, DICAM Department,
Alma Mater Studiorum - University of Bologna

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Opportunities and threats for urban mobility in the aftermath of COVID-19

PIARC Webinar, 3 June 2020
Karen Vancluysen, Polis
Peer-to-peer exchange

Policy

Research

Innovation

+80 Cities & regions

POLIS
CITIES AND REGIONS FOR TRANSPORT INNOVATION

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No recipe for this disaster
Cities stepping into the frontlines

Brussels announces 20km/h limits to give more space to people
Brussels has announced plans to introduce lower vehicle speed limits to give more space for people in response to the COVID-19 outbreak. From early May, the ‘Pentagon’ (i.e. the area located inside... READ MORE →

London launches new measures to reduce spread of virus
London has announced new measures to adapt its transport system in response to the ever-changing conditions of COVID-19. In recent weeks the British capital has been formulating new plans to respond... READ MORE →

Paris prepares network of pop-up bike lanes for post-confinement
Paris has announced plans to roll out a network of pop-up bike lanes in preparation for the easing of confinement measures. The plans will see 650 kilometres of pop-up ‘corona cycleways’ created ac... READ MORE →

Dublin cuts parking space to prioritise pedestrians
Dublin City Council has announced plans to cut road space to give more space to pedestrians during the coronavirus pandemic. To allow people to walk and cycle more easily in the city and to make soci... READ MORE →

Milan proposes post-COVID plans for walking and cycling
Milan has announced ambitious plans to reallocate space for walking and cycling in response to the COVID-19 outbreak. The ‘Strade Aperte’ plan, announced on Tuesday 21st April, will see 35km of str... READ MORE →

Italian cities seek to retain temporary bike lanes after lockdown
Italian cities have announced plans to keep temporary bike lanes in place after lockdown measures are lifted. Cities across the world have implemented temporary bike lanes in response to the COVID... READ MORE →

Madrid reopens public bike hire
Madrid has announced the re-opening of its public bike hire scheme after a closure of more than one month. Madrid City Council reopened the BiciMAD on April 22. The Madrid Municipal Transport Compa... READ MORE →

New York to introduce legislation to open up streets
New York City Council is set to introduce legislation to open up streets to pedestrians and cyclists during the COVID-19 pandemic. The decision to open up streets will allow citizens to walk and cy... READ MORE →

Île-de-France plans post-confinement mobility changes
Île-de-France Mobilités has announced plans to adapt the region’s transport system in preparation for the lifting of confinement measures. The post-confinement plan is underpinned by several key pri... READ MORE →

Data from Rome reveals changing travel during COVID-19
Italy has been heavily affected by the COVID-19 outbreak and Italian cities have felt major impacts from the virus, including in mobility. In response to the virus outbreak, cities have implem... READ MORE →

Manchester launches free metro offer for health and social workers
Tram services across Greater Manchester will be free for National Health Service (NHS) workers and social workers from 10 April. The offer was launched to support these key w... READ MORE →

Barcelona launches ‘solidarity buses’ to transport COVID-19 patients
Barcelona’s city transport system has launched a new service of ‘solidarity buses’ to transport COVID-19 patients to secure facilities. Transfers of patients with Covid-19 are now under using T... READ MORE →
From lockdown to gridlock?
Redistributed space

Active travel boom

Cleaner air

No congestion ...
How are cities coming out of the lockdown?

Question: How do you think this health crisis, and its subsequent financial implications, will impact, in the future, your organisation’s actions on sustainable mobility?

- Crisis brought measures to a halt
- Decreased car use
- Boost of investments
- Investments will remain the same or decrease
- Decreased emissions
- Increased car use
- Decreased walking/cycling
- Increased walking and cycling
- Increased virtual working
- Negative effect on Public Transport
- Too early/Too complex to reach conclusions

Source: Polis membership survey
Fast-tracking
The elephant in the room

The massive drop of cars on our roads has made it visually very clear how massive the space is that this mode still occupies in our cities, with wide, almost empty car lanes during lockdown versus highly used narrow bike lanes and pavements.
Respacing streets

Sources: Barcelona, Berlin, Brussels, Ile-de-France, Milan, Rome
Instead of transporting the usual 1.37 mln commuters/day, Milan's subway will work at 30% of its normal capacity, meaning only 400,000 commuters can be transported. For the other 70% - the new plan should bring a part of the solution.
Triggers for change...

- Life-changing moments
- Biggest sandbox ever
- A friend in need...
Life-changing moments
Life-changing moments

COVID-19
Post COVID-19 Mobility Survey

• 43% say their mobility will change
• 35% intend to use bike or e-scooter more
• 29% fear they will use public transport less
• 22% might use their car less

Source: Espaces Mobilités

www.polisnetwork.eu
Biggest sandbox ever
A friend in need...

An integrated multimodal sustainable urban mobility ecosystem
Momentum for joining forces
But also...

Lime and Bird suspend e-scooter rentals in dozens of cities
Demand plummets amid coronavirus outbreak, putting pressure on cash-burning start-ups

Uber considers cutting 20 percent of workforce amid coronavirus: report

Uber leads $170M Lime investment, offloads Jump to Lime

Voi supports the restaurant industry: offering e-scooters for increased home delivery demand

We support people working in system-critical jobs by providing free rides for their daily commute.
Integrated multimodal sustainable urban mobility ecosystem

Integration PT & shared mobility
- take pressure away from PT
- spread capacity & shift travellers to shared bikes, e-bikes and e-scooters
- adopt broader definition of PT, embracing a mix of mass transit and shared mobility

- Public-Private Partnerships
  - new business models
  - subsidies

- Data
  - Mobility as a Service

picture: Zuid-Limburg bereikbaar
Big happy family?

CORE MaaS: A Social Distancing Mobility Platform

Metropolitan winner: MILAN, ITALY

Regional winner: GHENT, BELGIUM

Set up your city bike-share in one month!
Are you interested in getting bikes for your city? We can help!
Bouncing back

• Cities have shown they can act fast in times of emergency
• PT is an essential service we can rely on
• Active travel has proven once again it deserves more space
• Cities will show their resilience, but...

Positive change will not come naturally
Cities need support from other levels of government and from the private sector!
Thank you!

kvancluysen@polisnetwork.eu

www.polisnetwork.eu/2020-annual-polis-conference/
CITIES FOR PEOPLE: BUILDING BACK BETTER THROUGH SUSTAINABLE URBAN MOBILITY STRATEGIES

Dionisio González
Director of Advocacy & Outreach

3/06/2020
3.1. Introduction
The health crisis is having a major impact on public transport systems

PT is a vital public service, ensuring mobility of essential workers while protecting staff and customers

But we’re under attack, public threat and confusing messages

It is imperative to step in with exceptional financial measures or the system will collapse (short-term)

Global challenges linked to SDGs: climate, health, social inclusion, road safety, economy... are at stake (medium-long term)
THE BENEFITS OF PUBLIC TRANSPORT TO SOCIETY

Key role of public transport, the backbone of urban mobility, as an enabler to other city objectives:

- Economic: accessibility, jobs, growth,…

- Social: no one and no place behind

- Environmental: health, climate, road safety,…

This health crisis opens a window of opportunity for decision-makers to develop people-focused policies.
3.2. Addressing the challenge of public transport survival: funding and financing
UITP is closely following the ongoing impacts of COVID19 to our sector.

Key areas:
- **Overview of impacts:**
  - Short: lockdown
  - Short-medium: restart, recovery
  - Medium-long: investment, culture change, ways of working

- **Surveys**
- **Assess range of initiatives to support the PT sector**
3.3. Supporting Public Transport as a key enabler to build back better
Cities the world over have understood that now is the time to move forward on sustainable urban mobility.

Main pillars:
- Strong common vision, rethinking cities for people;
- Effective governance and modern regulation;
- Solid and stable long-term funding and business plans, including urgent financial measures;
- Ambitious political leadership.
RECOMMENDATIONS

To build back better, it’s key:

• Good communication and trust into PT services
• Priority to PT and more urban space for walking and cycling
• Clear rules and enforcement by competent authorities
• Consultation with PT experts
• Demand management, flatten the curve
• Opportunity to develop an stable institutional and funding framework
RECENT UITP ACTIVITIES

- Knowledge
- Advocacy
- Exchange Platform
- Campaigns
- Webinars
QUESTIONS?

dionisio.gonzalez@uitp.org
Questions and Answers

Moderated by Christos Xenophontos
Our Speakers today

- Patrick Malléjacq – Secretary General, PIARC
- Dipl Ing Tommaso Bonino, SRM, Bologna, Italy
- Prof. Lei Zhang, USA, Univ. of Maryland, USA
- André Broto, Strategic Theme Coordinator for PIARC Theme 2- Mobility
- Andrea Simone, Chair, PIARC Technical Committee 2.1 on Mobility on urban areas
- Karen Vancluysen, Secretary General, POLIS Network
- Dionisio Gonzalez, Director of Advocacy and Outreach, UITP
Conclusion and Next Steps
Since time is of the essence, it is likely that knowledge and practice that is shared will not have been officially approved by each country’s official authorities.

“The ideas and examples shared here are for illustration only. They do not necessarily represent official policy. Ideas presented will be subject to further evaluation and use in deriving recommendations on policy and practice in due course. While care has been taken in the preparation of this material, no responsibility is accepted for any damage that may be caused.”
Next steps

- We publish video recordings and presentations from our webinars
- Further PIARC webinars are planned, in English, Spanish and French
- We publish “Notes” with the findings from those webinars
- An in-depth report is scheduled for August
Two PIARC polls are open

In order to allow everyone to contribute, two polls are now open:

- To identify issues of concern:
  https://forms.gle/cgi8WCeQYykCeNFQA

- To identify stakeholders who wish to share their practices:
  https://forms.gle/8sPYw3qhZoySQueJ9

Those two links are also available from PIARC’s website.
PIARC’s Response Team: Contact details

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Thank you for your attention!

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