



# Digital Strategies *Supporting Recovery* from COVID-19

**A Major Sector that is Most Vulnerable for Transmission  
is our First Category of Talk - Rail & Transit**

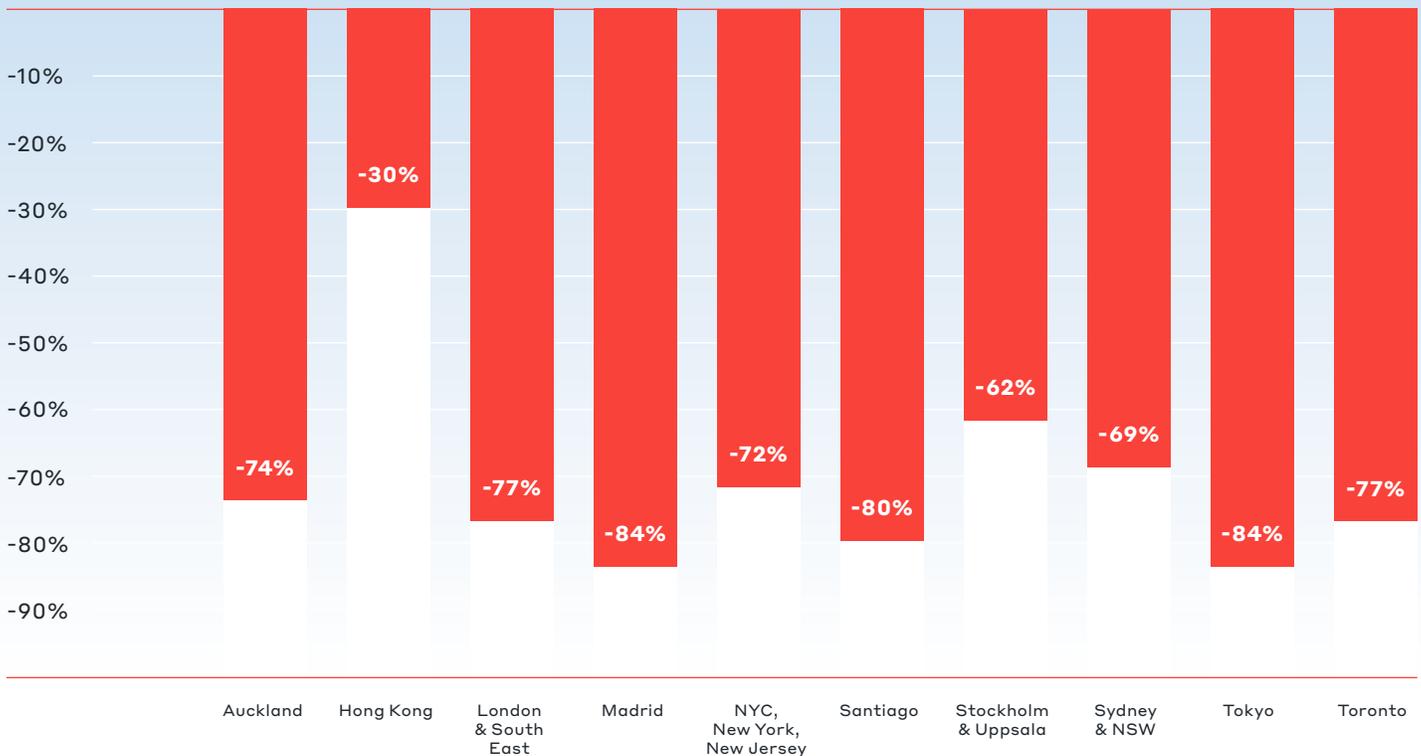


Rail plays a vital role in keeping a nation moving — getting passengers to their destinations and moving goods so they can reach the consumers. The Covid-19 situation, however, stalled the planet. In major parts of the world, transit was completely halted and in few, it saw significant

reduction in services. The freight rail kept essentials such as food, fuel and medicine running, but encountered many challenges. Figure 1 shows percentage of change in ridership across public transit around some major cities of the world.

Figure 1  
**Change in Public Transit Usage Around the World**

Change in public transport usage between 15 January and 5 May 2020  
 Source: Moovit App. The app provides usage of public transit in each city compared to a typical week before the outbreak began (the week prior to 15 January)



Transit agencies faced deep cuts in their ridership, were forced to shut down services, put people on leave, and increased investment in PPE and disinfecting process. A recent article<sup>1</sup> shows that Covid-19 can drive up the expenses of U.S. transit agencies annually by USD 4-5 billion.

In such a scenario, prioritization of actions is imperative. And smart and digital solutions can help bring more efficiency.

Recent survey<sup>2</sup> conducted with 24 agencies (from March 24 to April 4) found

**73%**

of agencies making moderate to significant changes in their cleaning protocols

**50%**

agreed with more cleaning procedures, safety protocols and increased cleaning frequency

These initiatives will be tough if not documented properly. Agencies with strong asset management systems were able to track the cleaning procedures better.

Before the Covid-19, under normal circumstances, safety within customer experience was about ensuring incidence free operations, putting CCTV cameras, creating helplines for passengers, evacuation in case of fire and smoke, etc. But with the Covid-19 situation, the most important safety measures include disinfecting the trains, ensuring staff safety, social distancing and engaging in acts that help commuters feel comfortable to travel.

In order to keep the drivers, workforce and passengers safe, many countries are investing in various ways.

## Public transport agencies around the world are taking measures to deal with the pandemic



In many parts of the world, the restrictions are easing out now, putting a responsibility on transit agencies to bring services back to

normal. How the world starts to see railways now will perhaps help define a next new for the sector.

Disinfecting robots for cleaning	Robots as assistants in stations
Apps to check capacity (limited utilization)	People check apps before leaving for a metro station to find out how crowded a subway is (avoid crowding at platforms)
Agencies looking for ways to check if staff can work from home	All agencies check what percentage of people can work from home
Temporarily no cash payments	Permanently no cash payments and only use of contactless payment
People cannot take public transit unless essential	People get notification of slots when they can arrive on the platform
More activities resulting into more tracking	More focus on asset management
Dependent on driver's safety	More driverless trains



Post COVID-19, some digital strategies may prove useful for public transport in removing its disease spreading association, increase its attractiveness, and decrease costs.

One example is crowd control with the use of real-time information on passenger load for dynamic pricing, assisting passengers to less crowded departures or stations, and less crowded parts of a train or station. Data-driven asset management helps achieve efficient predictive maintenance. This reduces the risk of technical failures that often leads to overcrowding when people get stuck in trains/stations.

In addition, it reduces staff-passenger exposure by avoiding performing corrective measures during traffic hours. Automated operation is cost-efficient, and provides more punctual, flexible and robust traffic.

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## Sources

**<sup>1</sup>MARCH 20, 2020**

[Estimated Financial Impact of COVID-19 on U.S. Transit Agencies: \\$26-\\$40 Billion Annually \(TransitCenter\)](#)

**<sup>2</sup>APRIL 28, 2020**

[How COVID-19 has impacted transit maintenance practices \(Mass Transit\)](#)

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## Sources for Solutions on Map

### China

**MARCH 30, 2020**

[Wuhan Metro reopens as mainline and freight services resume \(International Rail Journal\)](#)

**MARCH 3, 2020**

[Coronavirus: China's tech fights back \(BBC\)](#)

**FEBRUARY 02, 2020**

[Metro adopts real-name ticketing system \(Shenzhen Daily\)](#)

### Denmark

**MARCH 11, 2020**

[Denmark's state railway adds more carriages to trains so passengers can sit further apart and avoid Covid-19](#)

### Hong Kong

**MARCH 12, 2020**

[Hong Kong is using robots to disinfect subway trains \(Futurism\)](#)

### Spain

**APRIL 2, 2020**

[Renfe and Talgo modify high-speed trains to transport Covid-19 patients \(Railway Technology\)](#)

**APRIL 3, 2020**

[Railway-technology.com/news/renfe-talgo-high-speed-trains-covid-19-patients](#)

### UK

**APRIL 28, 2020:**

[Railway-technology.com/news/gb-railfreight-trials-use-of-commuter-trains-to-deliver-parcels](#)

### US

**MARCH 26, 2020**

[Making public transit more resilient to future pandemics \(Traffic Technology International\)](#)

**APRIL 08, 2020**

[Rail Group Staff Report: Global railway industry response and impacts to COVID-19 pandemic \(RT&S\)](#)



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