





ROJECT IMPACT Impact of COVID-19 on Cities and Mobility

White Paper on Global Cities and Mobility Survey

June 2020

INTRODUCTION

- While the consequences of the COVID-19

 pandemic are still unravelling, there is
 wide consensus already on one aspect:
 this crisis will impact urban living,
 businesses and technology in a manner
 that suggests such disruptions could
 become the new normal further it will
 require a paradigm shift in current
 approaches to cope with them.
- This pandemic has already altered urban life significantly, and along with it, trade and commerce. The movement of people globally as well as locally has dropped to remarkably low levels, unprecedented in modern times. Working, studying, socializing, banking and shopping from home have suddenly become the new normal. The fate of millions of small businesses and workers that make urban life possible is yet unknown. These changes have made us think about how to plan and build cities, how resilient our companies and urban areas are and more importantly, how cities and industry respond to such large-scale lockdown events.
- At this stage, it is a challenge to understand fully how the changing lifestyle resulting from lockdowns will affect the functioning of cities and what new technologies will be developed to support changes in the short, medium and long term. To obtain more insights on this subject, GIZ, Cities Forum, CRDF-CEPT and Ideal Management Consultants are undertaking a Research Project named, Project IMPACT.
- This research aims to understand the likely impact of the COVID-19 pandemic on our Cities and Mobilities.
- This research pulls in the thoughts and experience of subject matter experts, policy makers, research scientists, practitioners, academicians and business owners.

- Our methodology was to prepare and circulate a detailed questionnaire amongst various experts globally to gather their opinion on how cities and city residents are likely to respond during and after this crisis phase.
- The data collected was analyzed and synthesized into a meaningful set of insights. These insights were then shared with leaders and global experts to seek their views.
- The initial findings have now been collated in a White Paper for dissemination to initiate discussion with various governments and authorities, as well as to further this research.
- This White Paper, the first in a series of research outputs, presents global insights on likely changes that could take place in the Cities and Mobility sector as a result of the COVID-19 pandemic.



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WHAT IS PROJECT IMPACT ?

Joint research being undertaken by GIZ, Cities Forum, CRDF – CEPT and Ideal Management Consultants. The research is based on the survey of several senior industry leaders in cities the and the mobility sector, followed by one on one interviews with the the international experts and global institutions.

The objective of this study is to understand the likely disruption to the Cities and the Mobility Sector arising from COVID-19.







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The surveys were conducted from **1 May 2020 - 7 June 2020** and capture the thoughts and opinions of business leaders, policy makers, subject matter experts, researchers and academics

45+

Countries



550+ Respondents





Do you feel in the long term COVID-19 will change the way we generally live on the planet?

"

We have seen historically that (responses to) pandemics have shaped cities in many ways in the past, and this certainly should be an opportunity and a time for us to do so again. In the past we have seen sewer systems and park systems built in reaction to pandemics and hopefully this will be another time of great change and a pivotal moment for cities.

Heather Thompson, CEO, Institute for Transportation & Development Policy, (ITDP)



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An overwhelming majority feel that COVID-19 will change our lifestyle completely and once the pandemic is over, we will have to adapt to this changing lifestyle.

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21% feel that it is too early to opine on this matter, and it all depends on how long the crisis will last.



5% of the total respondents feel that COVID-19 will not have any significant long-term impact on our everyday lives. 5



Do you think, post COVID-19 related lockdown/restrictions, there will be a greater acceptance to work from home by companies?

"

I do believe there will be a greater acceptance to work from home especially for companies that are not in person industries. Many companies have already announced permanent working from home options for employees so this is already a trend and won't have to wait till post COVID-19. We are also seeing many employees moving farther away from company offices to find cheaper housing options and less congestion given the ability to be productive while working remotely.



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What do you think about the following statement? Companies are likely to reduce the size of their offices with more staff working from home?

"

As many companies have already announced permanent working from home options for employees, we are already seeing many companies not renewing leases or reducing the amount of office space needed post COVID-19.

Amit Zavery, *VP and Head of Platform, Google Cloud*



How do you consider demand for commercial real estate and office space (inner city and CBD) being impacted?

"

COVID-19 has undoubtedly triggered uncertain and difficult times for the majority of businesses. Our members are still working through the implications of the macro-economic situation for both their balance sheet and the working needs of their employees, and it is clear that a company's real estate strategy has never been more important, with the majority of businesses looking at their office footprint in a new light as a result of the pandemic.

David Kaiser, Head of Real Estate for WeWork UK and Ireland of the respondents feel that the demand for commercial real estate and office space will **reduce** post lockdown.

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Nearly a third of the respondents are of the opinion that COVID-19 will **not have any impact** on the inner city and CBD demand

While a very small percentage of the respondents feel that the demand for commercial real estate and office space will **increase** post-lockdown.



How do you consider demand for commercial real estate and office space (outside the inner city) being impacted?



Flexibility will be fundamental to even more occupiers who we are finding increasingly favour shorter commitments and turn-key space over conventional leases. In the longer-term, our members expect their office space to drive creativity, productivity and collaboration for employees - employee experience will now be more important than ever. We believe that our service-led, varied, flexible and collaborative spaces will mean that we are seen as a solution for small and medium sized businesses, as well as larger enterprise companies

David Kaiser, *Head of Real Estate for WeWork UK and Ireland* of the respondents feel that the demand for commercial real estate and office space outside the inner city will **decrease** postlockdown.

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59%

29%

of respondents feel that the demand for commercial real estate outside inner city will either increase or will not be impacted 9



How do you consider demand for large size residential apartments being impacted (with onset of work from home)?

In the real estate sector, we can see that the pandemic has changed some trends. The current trend for the densification of work and living space is being reconsidered. This, and the combined effect of global recession, has left the Indian real estate sector amid huge uncertainty. Considering the impact, the investors are forced to re-evaluate their investment strategy. In Europe, several countries, including Germany, the UK and France, have suspended evictions and providing temporary mortgage relief.

Mr. Ernst Doering GIZ Cluster Co-Ordinator - Urban Development, India





How do you feel in the long run COVID-19 will lead to impacting the size of cities?

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The pandemic has challenged the way we plan, design and live in cities globally. Whether that's city transport systems, where people live and work, how much space people have on streets, quality of and access to healthcare systems, access to open and green space and more. It provides us with opportunities to review and improve how we build more resilient cities; all areas of urban development need to respond to create more liveable, sustainable and healthy cities.

Hitesh Vaidya, Director of National Institute of Urban Affairs India (NIUA)



Smaller Cities are the future

A large proportion of respondents are of the opinion that smaller cities with lower density will be preferred in the future



About a fourth of respondents feel they **can't say at the moment** as to how COVID-19 will impact the size of the cities 26% still feel that **larger** cities will always be preferred over smaller cities even post COVID-19



Do you think that with the gradual expansion of remote working and provision of adequate infrastructure, people will prefer living in smaller cities rather than large cities?

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Remote working / telecommuting has been a growing trend for years, and there is strong evidence that those who regularly telecommute tend to live further from their place of work. There are also some studies indicating that those who regularly telecommute live in less dense urban areas. These studies may suggest that increased telecommuting enables a preference for smaller cities to manifest itself, but there are many other factors at work.

Dr Hannah Budnitz, *University of Oxford, UK*



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How do you think demand for work space / living space will move towards areas where more open space / greenery is available?

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COVID-19 presents an exciting urban regeneration opportunity to accelerate progressive changes to open space and greenery. COVID-19 has the potential to catalyse the creation of accessible and multifunctional green space in dense cities. The challenge we face is ensuring local authorities embrace a fast paced, bold planning approach that rethinks the open space model.

Michael Cowdy , Director of Global Urbanism, McGregor Coxall



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What do you think about the likely changes with regards to the planning of cities?

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Cities will respond to restrictions imposed on public transport to keep distances with more restrictions to private car use; fostering pedestrians, cycles and scooters; increasing bus dedicated lines; increasing bus fleets & frequencies; and increasing bike lines and sidewalks. In addition, cities will foster less than 15-20 minutes walking distance to work, commerce and services of all kinds through land use plan adjustments. Whilst the transition to zero emissions public transport will also be fostered.

Manuel F. Olivera, Regional Director for Latin America, C40





Does your city have a Disaster Management Plan?

"

Many lessons can be drawn from the current coronavirus pandemic for metropolitan areas. All cities will review how they were affected by and responded to warnings about and responses to a national virus epidemic in their countries as well as in other countries. Lessons can be identified about what worked effectively and what failed. With the eye-opening social, economic, cultural and even political consequences of COVID-19 pandemic, there will develop a multidisciplinary sub-field of urban research focused on virus risk reduction and responses to pandemics, sort of an 'urban immunology'.

Prof Michael H. Glantz, *Director of the CCB - Colorado USA*



51% of respondents reported that their city has a disaster management plan, while 20% of the experts said that their city does not have one.



Has COVID-19 been declared as an emergency event in your city / state / country?

"

Communications for Early Warnings are very important for climate, water and weather hazards. This is also true for warning about pandemics. People have the opportunity to prepare for hazards, when those hazards recur with a known frequency. Pandemics, however, reappear infrequently, so even with a perfect communication channel, the attention span of society is very short and as a result the response to the warning by society lags. So, there will be a staggered response for any society to effectively respond to a pandemic warning.





Does the disaster management plan consider the preparedness and response to a pandemic of this scale?

Dealing effectively with pandemics will require both shortterm and long-term strategies. Most cities, it seems, did not have in place plans in case of a pandemic but cities that responded guickly clearly managed better. These responses included closing schools and other public spaces, setting and enforcing social distancing rules, and communicating them effectively through various media. Obviously, the general preparedness of health care services and facilities was important. In places where hospitals and health care systems are privatized and fragmented, coordination turned out to be much more difficult.

Juha Ilari Uitto,

Director of Independent Evaluation Office (IEO) of the Global **Environment Facility**







respondents have reported that the disaster management plan of their city had considered the preparedness and response to a pandemic of this scale.





Do you think the supply of skilled/unskilled workers in cities will be affected after COVID-19?

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The reverse migration of Skilled and unskilled Workers due to COVID-19 pandemic was very detrimental, for the Construction industry and the economic growth. Though Lockdowns are being removed progressively, people will still be on a "wait and watch" mode as the disease is still prevalent. Once a vaccine is found and majority of the population is inoculated, only then unrestricted movement of people will start and supply will resume but at a higher cost. The contractors will adopt more to mechanized construction to fill the gap in workmen.

D K Sen, Wholetime Director, Senior EVP and Head -Infrastructure, Larsen and Toubro







of the respondents are of the opinion that the supply of skilled and unskilled labour will be affected post COVID-19 but will get back to normal eventually

21%

Supply will be affected only for upto six months

9%

Supply will never return to normal

Supply will be affected for upto a year

37%

30% Labour supply will be temporarily

reduced and return to normal

Whereas, 30% believe labour supply will be affected temporarily and will return to normal upon finding a vaccine. 9% believe COVID-19 will affect the supply of labour permanently



In the short term (up-to six months), please rate how you consider the travel demand of each of the following modes will be impacted post COVID-19?

"

In the short term the modes that will be most impacted are public transport and shared mobility due to rejection from customers because of health and safety concerns. We are seeing a widespread 50% reduction in capacity and corresponding reduction in incomes, that will have a big impact in the short - long term. This is the main issue that cities are facing because public transport is the backbone of mobility. Right now to change from public transport to other modes of mobility except private transport is difficult, and thus we are likely to see increases in private mobility.

Daniel Serra, EIT Urban Mobility, Spain



Substantially increase
 Increase
 Reduced
 Substantially reduced

e 🛛 🗖 No change

The survey reveals that the travel demand for Personal Vehicles, Online Delivery vehicles, Micro Mobility modes like E-Scooters, Walking and Cycling will increase substantially While (due to public health concerns), public transporttrips are likely to be reduced drastically in the short term.



In the medium term (from six months up-to two years), Please rate how you consider the travel demand of each of the following modes will be impacted post COVID-19?

"

It would be very difficult to predict exactly what will happen but public transport will be very much effected specially in peak hours. I think it is a great opportunity for micro-mobility modes. There are great opportunities for companies to grow in this sector. Cities are increasingly thinking about it but it takes time to improve and to attract the investments. Globally it's a great opportunity for micro mobility. I think it is also a great opportunity for flexible and demand responsive transport, this will reduce the dependence on public transport and can provide alternatives to private car usage that are more sustainable.

Daniel Serra, EIT Urban Mobility, Spain



CRDF CEPT

The respondents were of the view that confidence in public transport will be restored gradually over the medium term, but the public transit trips will still not reach close to pre COVID-19 levels.

Conveyance using Personal Vehicles, Online Delivery vehicles, Micro Mobility modes, Walking and Cycling will continue to be preferred over public transport.

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In the long term (more than two years from now), Please rate how you consider the travel demand of each of the following modes will be impacted post COVID-19 ?

"

With COVID-19 there would be serious repercussions on public transport demand given the social distancing protocols and the fear psychosis of the Pandemic. I expect there would be drastic reductions in Public transport demand. The demand for Public Transport would still be less to the extent in first two to five years and in the long term after five years the demand for public transport is expected to reach pre COVID-19 levels.

PRK Murthy,

Director (Projects) Metro, Metro PIU, Mumbai Metropolitan Region







The data shows that respondents think that in the long term, public transport trips will bounce back to normal levels However, the COVID-19 pandemic will result in the popularity of walking, cycling and micro mobility modes, with online delivery vehicle traffic increasing drastically in the long term.



What do you think about the following statement? Cities need to invest more in developing cycling and walking infrastructure.

"

Walking and cycling allow for both physical distancing and liveable cities: Investments in cycling and walking should be a top priority – and they are comparatively cheap: A pop-up bike lane comes at un-matched 9500 Euro/km as per figures from Berlin.

Armin Wagner,

Senior Transport Policy Advisor, Transformative Urban Mobility Initiative (TUMI)





What elements of public transport do you think need to change to adapt to post-lockdown cities?

"

For life in our cities post pandemic, public transport can, will, and should come back better. There has been many challenges faced during this crisis, but the sector can continue to learn lessons. Public transport can be more attractive and safer to travel in. In order to limit and manage crowds, supply will be strengthened, and the service frequency augmented, offering a better and more regular service. The sector will become more flexible and technological innovations will need to advance at a faster speed. There are many opportunities to make public transport more people-focused and more efficient: the passenger should be the priority.

Sylvain Haon, Senior Director of Strategy at UITP



Public health interventions e.g., safe spacing of passengers, enforcing the use of masks, public health messaging etc., are the major requirements that experts feel that public transport agencies will needto work on in order to pull travel demand back on to public transits. Also, transit agencies willneed to work on improving routes and frequency levels.



In the future which travel modes do you think should be given the greatest investment and space on streets ?

"

The answer would depend on the size of cities and distribution of densities, so we have to be cautious about broad based generalization. The answer is that cities should develop a mobility plan responding to their population needs, characteristics and funding capacity. Globally we see cities are growingly prioritizing walking and cycling, public transport and IPT before supporting personal travel modes. This is a major reversal of past trends, but also reflects an asset base in place. Larger metropolitan areas with long distances to travel and high density will need investment in mass transit within the PT categories in high capacity corridors.





Respondents ranked the various modes of travel with respect the future investment and there is a very clear consensus that cities should invest in walking and cycling modes followed by public transport and electric mobility. Personal travel modes should get least priority when it comes to investment and and to providing space on streets.



In the short term (up-to six months of opening air space), Please rate how you consider air travel demand will be impacted post COVID-19?

This pandemic will not be over until there is a vaccine available worldwide. Until then, the trade-off between security and freedom and that applies to us all. But for us as an airline group, one thing is clear: We were the first industry to be affected by this global crisis and aviation will be one of the last to leave it. We are not expected to get back to pre-crisis demand until 2023.

Carsten Spohr, **CEO** Lufthansa





Due to uncertainty around the timing of a vaccine to prevent the spread of COVID-19, most of the respondents are of the view that air travel demand will be substantially reduced in the next six months.



88%

of the respondents say that domestic travel will be badly hit

say that international travel will be severely impacted due to border closures and other public health reasons.



In the medium term (from six months up-to two years of opening air space), Please rate how you consider air travel demand will be impacted post COVID-19?

"

Today we are assuming that at some point in 2023 we will have a complete flight plan again. But also because of the recession we will see worldwide, it will certainly hit a market that does not have the same demand dynamics as in recent years.

Carsten Spohr, CEO Lufthansa



International Air Traffic



In the medium term, most respondents think that air travel demand for both domestic and international travel will still be lower than pre COVID-19 levels. However the decline will not be to the same extent as in the short term. This shows that gradually in the medium term air travel is likely to increase gradually, but will still remain at lower levels when compared to the pre-COVID-19 scenario.



In the long term (two years onwards of opening air space), Please rate how you consider the air travel demand will be impacted post COVID-19?

In the crisis, we are expecting ten percent lower yields and a ten percent lower utilization of our aircraft. After the crisis, we will probably have a fleet that is 100 aircraft smaller, but with larger aircraft and higher productivity, we will be able to achieve traffic performance comparable to that before the crisis.

Carsten Spohr, **CEO** Lufthansa





In the long term, it is expected that air travel demand for both international and domestic travel will be back to pre COVID-19 levels.



of the respondents are of the view that domestic air travel demand will eventually come back to pre COVID-19 levels; and in fact 27% feel that domestic air travel demand is likely to increase.



of the respondents expect that international air travel demand will likely to be back to pre COVID-19 levels.



Do you anticipate seeing an impact on digital connectivity (broadband internet) in cities as a result of increasing work from home and e-commerce?

Through the COVID-19 situation it has become apparent that connectivity can be delivered through proximity and transportation or communications, need to be considered holistically, in future city planning. Digital connectivity, both in private and public areas will play a key role in creating safe, productive and resilient communities that can coordinate, respond and adapt to any extreme situation. It is clear that the collaboration between private and public bodies will be needed with a wider vision in mind, to enable anyone to access amenities and opportunities equally even in the toughest conditions.

Dr George Economides, Future Mobility Team Leader, Innovation Hub, Oxfordshire County Council, UK







93% Yes 5% 2% Can't say No



The survey clearly shows that authorities will need to work on improving digital connectivity arising from the increasing popularity of work from home and e-commerce platforms. The vast majority (93%) of the respondents anticipate a significant impact on digital connectivity with increasing home office and e-commerce activity.



Do you think your city needs to strengthen digital infrastructure to meet the requirement of potential increases in data?

"

The need and room for strengthening digital infrastructure in the face of growing demand is logical. With education, health services, transport already seeing inroads in the move to digital platform, it is imperative that the digital infrastructure is strengthened. The rural setup also requires robust and affordable digital infrastructure. At present connectivity in rural areas specially in Africa is still a challenge. One has to go to the cyber cafes available or purchase expensive data bundles in order to access online service(s).

Prof. Oyuko Mbeche

University of Nairobi Director and Member of the Board Kenya Rural Roads Authority





In the future do you think it will be more important for cities and governments to invest in transport connectivity or digital connectivity?

"

The answer is that it is not an either or. Both are highly needed. Digital connectivity can easily be provided through private investment if the business environment is created right, and accordingly given limitations in public funding, this is likely a lower priority for scarce government resources. Similarly there are many opportunities to crowd in private capital in public transport (e.g. buses/terminals) while focusing public resources on viability gap funding under contract with clear KPI enhancing accountability.

Gerald Ollivier, *Lead Transport Specialist, World Bank*



connectivity should be prioritised over transport

connectivity.



What technological changes do you think might happen in the management of cities and mobility?

"

The COVID-19 pandemic has pushed us to embrace technologies that we were considering for the future urgently and overcome any obstacles. The wide use of tele-health, object-recognition cameras for social distancing and UAV medical delivery trials have accelerated. This horrific disease has nevertheless forced us to rethink carefully of how we use big data and analytics to effectively manage and create resilient cities, as well as how can we best introduce a "new normal" into the business as usual.

Dr George Economides, Future Mobility Team Leader, Innovation Hub, Oxfordshire County Council, UK



How can cities improve their public health responses to be better prepared for future public health emergencies?

"

The role of mayors and local authorities as guardians and promoters of good health and well-being is crucial in the COVID-19 pandemic and to build back green, healthy and prosperous urban societies of the future.

Dr Tedros Adhanom Ghebreyesus, Director General, World Health Organisation



KEY TAKEAWAYS : CITY



KEY TAKEAWAYS : MOBILITY



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DISCLAIMER:

The situation surrounding COVID-19 pandemic is dynamic and rapidly evolving, on a daily basis. Although we have taken great care prior to producing this report, it represents thoughts and opinion at a particular point in time. The results insights shown in the white paper represent the views of surveyed respondents only. Further the views & opinions expressed in this document are those of the authors and other contributors and do not necessarily reflect the positions of the institutions or governments. While every effort has been made to verify the data and information contained in this report, any mistakes and omissions are attributed solely to the authors and not to the organization they represent. In order to understand GIZ, Cities Forum, CRDF-CEPT or Ideal Management Consultants point of view, please contact them directly.