

REPORT

Building Resilience through Cycling



100 Resilient Cities President Michael Berkowitz (second from left) joined CLC Executive Director Khoo Teng Chye (fourth from left) and colleagues from the Singapore office of 100RC and the Centre for Liveable Cities on a ride through downtown Singapore during his recent visit. Source: 100RC

Michael Berkowitz is President of 100 Resilient Cities (100RC), an initiative to help cities around the world become more resilient to physical, social and economic challenges. He was previously the global head of Operational Risk Management at Deutsche Bank. An avid cyclist, he lived in Singapore from 2008 to 2010. In this recent interview with Dinesh Naidu from the Centre for Liveable Cities, he reflects on what makes cities resilient, and how providing for some urban needs, such as cycling, can have benefits across multiple dimensions and thereby help cities to meet the shocks or stressors of the future.

DN Why do resilient cities matter?

MB The world is urbanising at a rapid pace. In 2007, for the first time, more than half of the world's population lived in cities; by 2050, it is projected that up to three-quarters of humanity will do so. It has been estimated that 70% of the infrastructure needed to support this population has not even been built yet.

Cities face different kinds of risks today than they have in the past. While they remain vulnerable to the usual shocks, from earthquakes and hurricanes to terror attacks and other sudden events, they can also be subject to slow, chronic stressors: long-term food, water and energy shortages, high levels of crime and violence, or macroeconomic shifts.

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One US city was almost wiped off the map – not because of a natural disaster, but due to overexposure to a single industry. As America’s automobile industry became less and less competitive, the industry’s hub city, Detroit, was demapped; entire blocks were taken out of commission. What might happen, for example, to port cities which are very exposed to the shipping industry, when 3D Printing disrupts global shipping? It would have a real impact on cities such as Rotterdam or Panama City; perhaps less so in Singapore, which has a more diversified economy.

So urban resilience is about a city’s ability to survive and thrive in the face of whatever shocks or stressors it faces, and that’s why it’s so important in the 21st century.

DN What can cities do to become more resilient?

MB Resilience is often about changing how you approach problems. There are four qualities or characteristics that cities can adopt. One is an integrated approach. Too often, transport people talk to transport people, economic development people talk to economic development people, and housing people talk to housing people. This means some risks — and also opportunities — tend to be missed. Resilient cities have conversations across different silos, across the private sector, government, and civil society.

The second quality is to be more inclusive. The more we engage with all parts of society, the more resilient a city is; the less we do so, the more fragile a city actually becomes. A good example of this is the Arab Spring. It happened in cities that, on the face of it, had a lot of wealth; but they were divided societies, where one class of people didn’t feel like the city was operating for them. It took one fruit vendor from Tunis to set himself on fire and the whole region burned. So inclusivity, and actively getting all voices at the table, matters; it is not just for show.

The third and fourth approaches are to be “risk aware but forward-looking”. Risk aware means you need to design your city with the hazards, the hundred-year floods, the earthquakes in mind. You make sure you know what the risks are that you know that you are going to face, and design for them. But with something like climate change, however, we know that the past is not going to be necessarily a good predictor of the future. So being forward-looking is understanding that the hundred-year flood may not only happen once every hundred years anymore; it may happen every 50 years, or every 25 years. It’s about appreciating that with the rapidly changing environment our cities face, we need to be more proactive.

DN You have cycled in more than 20 cities around the world, including Singapore. Is there a link between cycling and a city’s resilience?

MB I often talk about something called the resilience dividend—it’s not just about the benefits that you get from the thing that you are doing, but also the ancillary benefits that strengthen a city across a number of other factors.



Mr Berkowitz has cycled in more than 20 cities across the world. Source: 100RC

Cycling is one of the best examples of this. A city might expand a cycling network in order to promote better mobility. But this also has health benefits, which keeps the population in your hospitals smaller. It has many proven benefits for small and medium sized enterprises, because foot and cycle traffic on the streets actually leads to better results for shop owners. It benefits community cohesion, because now we know our neighbours, we're interacting with people on the street, not just rushing past them in a car. And it has environmental benefits, because cycle-friendly communities have a smaller climate footprint.

Through one intervention, you strengthen yourself across a number of different dimensions. That's what makes cities more resilient. It is not that a city looks at itself and says: "We need to improve mobility." Yes of course you need to improve mobility, but the next big challenge will not be to your mobility. It may challenge your public health system such as with an epidemic, or your economic base, so you need stronger small and medium enterprises or more diverse middle-class jobs. The point is we don't know what the next thing is — to be resilient means that you need to strengthen yourself across different factors.

DN Which is the best city you've cycled in?

MB The best ones are the northern European cities — Dutch, Danish and German — which have allocated large parts of the road network to protected cycle lanes. A very high percentage of their commuters go by bike. One big advantage in northern Europe is that you have a very good climate for cycling — it doesn't get too hot or too cold, and it is relative flat. In many places, it doesn't rain that much either. I used to live in London. People think of London as a rainy place, but it actually rains by inches; half as much as it does in New York. What you tend to get is lots of cloud cover. This makes cycling to work — to the pub, to your friend's house — a relatively easy and pleasant experience. In some ways, these natural advantages make such cities the best for cycling.

However, I am very excited that other cities are beginning to promote cycling. New York is greatly expanding its cycling network. New Orleans is expanding bike-sharing to its poorest and most vulnerable communities, helping to bridge transportation deserts with public transport hubs. Cities at the forefront of promoting cycling are using this as a tool for equity, resilience and sustainability, which is very exciting to me.

DN What can Singapore do to become a better cycling city?

MB I lived in Singapore from 2008 to 2010, and I was a cyclist even then. But one of the things I've noticed is the massive increase in cycling in the years since I left. There has been an incredible uptake, with different kinds of cyclists on the road: the sports cyclists, the commuting cyclists, the bike messengers. You see many more bike shops. And you see it in the park connectors, which have greatly expanded and become more connected. In order for cycling to really catch on and become mainstream, you need to have the safest possible cycling network, and that's something that Singapore has done quite well.

While North American cities put cyclists on the roads, Singapore allows cyclists on the sidewalks. But I think neither option is good. What you need to do is allocate proper road space for cyclists, and not have them mixing

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with pedestrians on very crowded small sidewalks, or in regular road lanes mixing with cars.

As with every city in the world, when you take away road space from drivers and give it to cyclists, there will be protest. But in any city, only a relatively small segment of the population gets to work by car. Many more people take public transport, walk, or cycle.

So planners should have the fortitude to say: we need to reallocate road space in a more fair and equitable way, and in fact in the process we will make our city stronger, more sustainable, more resilient. The first phase in Singapore’s cycling journey was establishing the park connectors; the second was the rapid take-up in the past 7 to 10 years. The next phase will be to legitimise it as a mainstream mode of transport, and that will help make Singapore and even stronger city than it is today.

DN What are your thoughts on Singapore’s approach to resilience so far?

MB I think Singapore has been doing resilience for a long time. The Marina Barrage, which I’ve cycled over, is a great example of a project that builds resilience. If you had left it engineers, they would have built the barrage, created a fresh water body, and been done with it.

But the way the Barrage has actually been designed and constructed creates a link between the East Coast Park and the Central Business District. It has enabled recreation and biodiversity, and created places for families to meet, exercise and become healthier. And you did it with community participation. All of this helps strengthens Singapore and makes it more resilient.

So here is a project with multiple benefits that strengthen the city and the nation across different outcomes, and it is not the first time Singapore has taken this approach. Indeed, you have been doing this for a long time. What we hope is that Singapore can share some of its lessons on how to adopt this approach effectively in other cities, which look to Singapore as a model for resilience and success.

At the same time, we are living at a dynamic time; if Singapore doesn’t keep learning, evolving, and getting better, then it may become less resilient, and less of a leader. Many things threaten this small nation on an existential level – from a changing workforce to economic conditions and climate threats. Singapore also has to look outside, as it has long been doing, to learn and keep improving.

About the Interviewee



Michael Berkowitz

President
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Michael Berkowitz is President of 100 Resilient Cities — pioneered by The Rockefeller Foundation, where he is also Managing Director.

About CLC

The Centre for Liveable Cities was set up in 2008 by the Ministry of National Development and the Ministry of the Environment and Water Resources, based on a strategic blueprint developed by Singapore's Inter-Ministerial Committee on Sustainable Development. Guided by its mission to distil, create and share knowledge on liveable and sustainable cities, the Centre's work spans four main areas - Research, Capability Development, Knowledge Platforms and Advisory. The CLC Lecture Series is a platform for urban experts to share their knowledge with other practitioners. For more information, please visit us at <http://www.clc.gov.sg>

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