



Billy Bishop Toronto City Airport

URBANISATION

## How cities are shaping our future

Rapid urbanisation is a defining trend of the 21st century with complex economic, geopolitical, environmental and social impacts that are profoundly changing the way we live, work and compete, writes InstarAGF president and chief executive **Gregory Smith**

According to the Organisation for Economic Cooperation and Development (OECD), more than half of the world's population now lives in metropolitan areas. Over the next 50 years, this urban population is expected to increase by more than 70 percent. North America, where InstarAGF is based and invests, is among the most metropolitan regions in the world, with about 80 percent of the population living in urban centres.

Increasing urban density poses significant and costly challenges related to congestion, housing, pollution and infrastructure condition and sufficiency, among others. Yet throughout history, urbanisation has generally proven beneficial for human progress. Cities tend to create clusters of talent, engendering the intellectual capacity and collaboration necessary to maximise human capital and spur innovation.

Globally, just 600 urban centres generate about 60 percent of gross domestic product (GDP) while 20 percent of global GDP comes from 190 North American cities alone<sup>1</sup>, making them vital economic powerhouses that underpin a country's primary global competitiveness and future prospects.

### CITIES FACE WIDENING INFRASTRUCTURE DEFICIT

The ability of our cities to sustain their growth trajectories and for developing urban regions to similarly flourish, is deeply tied to the quality and sustainability of their infrastructure and the degree of innovation brought to the task of financing, building, maintaining and improving it. Modern, large-scale infrastructure development is fraught with challenges related not only to urbanisation, but also demographic shifts, technological change and environmental imperatives. At a time when urban infrastructure needs are

increasingly complex, many of our cities are simply failing to keep up.

As John F. Kennedy once said, neglecting our cities is to our peril, for in neglecting them we neglect the nation. With the unprecedented economic footprint of our urban centres, this statement is even truer today than it was five decades ago.

To be sure, most North American cities are highly livable by global standards. But many lack the revenue tools and innovative capacity to rebuild, modernise and expand infrastructure. In Canada, municipalities are responsible for more than 60 percent of public infrastructure assets, but collect only eight cents of every tax dollar. In the United States, state and local government debt has soared in recent years, with some cities even forced into bankruptcy—Detroit in Michigan, San Bernardino and Stockton in California, and Harrisburg, Pennsylvania, among others.

Further, many municipalities lack the resources and expertise to independently structure and manage large infrastructure projects, with sometimes disastrous consequences, as evidenced by Harrisburg's failed waste incinerator retrofit project, which worsened the city's financial woes and helped push it into insolvency. A further complication is that state and local governments in the US collectively face approximately \$1 trillion in unfunded pension liabilities<sup>2</sup>, an immense financial burden that hollows out long-term economic potential.

Given the condition of our infrastructure and diminishing sources of traditional financing, our collective approach to infrastructure can no longer be business as usual. The immense size of the infrastructure deficit, estimated at up to C\$570 billion (\$430 billion; €400 billion) in Canada<sup>3</sup> and \$3.6 trillion in the United States<sup>4</sup>, demands new thinking about alternative procurement methods and private funding solutions. Indeed, infrastructure investment must become a strategic economic and social priority: every 1 percent increase in infrastructure spending in North America is estimated to have an economic multiplier effect of up to 1.7 times<sup>5</sup>, thereby amplifying our

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overall productive capacity, creating jobs and enabling new economic opportunities.

In more tangible terms, infrastructure helps a city to thrive. Taking an example that is close to home for InstarAGF, the Billy Bishop Toronto City Airport, a unique collaboration between federal and municipal governments and the private sector, has emerged since 2006 as an essential transportation gateway for Toronto.

The airport facilitates regional and cross-border connectivity and integration with some of North America's largest urban centres, translating into increased movement of people and goods and boosting the city's intellectual and commercial capacity. The airport, which hosted 2.4 million passengers in 2014, delivers more than \$2 billion in total annual economic impact to the Toronto area and supports 6,500 high-quality jobs, thereby creating substantial value for the region, and by extension, the country.

#### CITIES AS CATALYSTS FOR PRIVATE INFRASTRUCTURE INVESTMENT

The pace and intensity of urbanisation is driving infrastructure investment opportunities in several core categories, particularly in transportation, water and energy. In fact, our municipalities, along with universities, schools and hospitals (known collectively as the “MUSH” sector), are emerging as the main catalyst for greater private sector participation in infrastructure delivery. This participation takes many forms, whether through government asset sales or public-private partnerships (P3), which are well established in Canada and growing in acceptance in the United States, or new contractual and alternative financing frameworks that range from concession-like structures to green bonds.

Transportation-related investment opportunities stem from the congestion that accompanies urban growth. Gridlock exacts an economic toll on businesses and individuals and dramatically affects productivity and quality of life. In addition, transport alone is responsible for about a quarter of greenhouse gas emissions. Nearly every major municipality



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in North America has a lengthy list of underfunded transit projects. In particular, light rapid transit (LRT) is growing in appeal due to its cost-effectiveness, efficiency and ability to reduce a city's carbon footprint.

Around the world, water use in cities has increased five times since 1950. Further, half of all cities with populations greater than 100,000 are located in water-scarce basins.<sup>6</sup> Problems with both droughts and floods in recent years have highlighted the dire state of North America's water infrastructure in an age of increasing scarcity and unpredictable climate events. In particular, the severe, state-wide water crisis currently playing out in California points to the need in certain regions for the construction and operation of desalination plants along with wastewater treatment, reclamation and re-use facilities. Overall, there is a tremendous need to modernise municipal water infrastructure, which dates back 100 years in many instances.

Energy reliability, security and sustainability is another key area of opportunity. Aging transmission facilities, renewable additions to the supply mix and the replacement of coal with new generation, combined with the strong load growth arising from urbanisation, are leading to demand for new electricity solutions. These include distributed energy and storage and new district heating projects, which, coupled with energy savings technologies, are presenting some intriguing and transformative investment opportunities

in what has traditionally been a slow to evolve sector. We also anticipate increasing consolidation at the local distribution company level as small utilities lack the scale needed to adapt to modern grid requirements.

#### LEVERAGING AND REFURBISHING EXISTING ASSETS AS EMERGING OPPORTUNITY

Investment in these three core areas is not only about building new infrastructure, but also about more smartly leveraging existing assets to save billions of dollars in future infrastructure expansion costs. Technology is having a major impact on how cities think about infrastructure improvement, with examples being the integration of advanced wireless communication technologies into transportation infrastructure and vehicles; alternative fuels and electric vehicles; and more responsive, standards-based systems that offer better intermodal transportation connectivity throughout a given region.

In a similar vein, there is a considerable infrastructure refurbishment and retrofit opportunity in North America's MUSH sector, particularly with respect to energy generation and distribution. MUSH institutions, facing severe funding constraints, are increasingly turning to non-traditional funding approaches to monetise non-core assets such as power systems, both securing a source of revenue that can be reinvested in the institution's core purpose, while also lowering electricity costs and realising customer service and conservation improvements.

InstarAGF is working with partner Johnson Controls to offer this new and distinctive utility model to MUSH institutions, as well as other large commercial and multi-residential users who are seeking to power more economic activity and demand with less energy but need a solution to cover up-front capital costs and fully capture the energy savings potential within their buildings.

#### CITIES WILL SHAPE THE FUTURE

Addressing the infrastructure needs of our cities demands vision, in terms of what is

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possible and desirable and in how investment opportunities are structured, to deliver value to taxpayers and to meet citizens' quality of life expectations.

Interestingly, there is more than enough capital available to fund the staggering cost of upgrading our urban infrastructure. Globally, institutional allocations to infrastructure are on the rise with more than two-thirds of investors planning to further increase their allocation over the long term.<sup>7</sup> Our experience in North America is that a number of local infrastructure fund managers are already stepping up to supply capital to mid-sized domestic projects and assets, including partnering with municipalities. And foreign investors continue to be drawn to the region, reflecting the quality and breadth of the opportunities available as well as North America's relatively stable financial, legal and regulatory environment.

The bigger obstacle lies in how to more effectively compete for this growing pool of capital. For most cities, it starts with creating a pipeline of viable, bankable projects accompanied by defined, predictable governance and legal processes that provide investors with visibility and return certainty. From a wider policy perspective, all levels of government must bring fresh thinking and new cooperation to the table. Canada, for example, is the only OECD country without a national transportation strategy, which undermines the economic potential of its major cities. Finally, today's infrastructure

decisions must serve the current populace as well as future generations, requiring sustained and strategic long-term planning that has been largely absent from the infrastructure dialogue until fairly recently.

For their part, private investors must recognise that the most significant barriers to infrastructure renewal are often political and social in nature, which underlines the importance of effective, comprehensive stakeholder engagement, including within communities and at all levels of government.

For all the challenges it presents, urbanisation also affords opportunities through the very process of urbanisation itself: the opportunity to enrich our communities through the pooling of talent and proliferation of new ideas and the ability to improve quality of life and reduce poverty. More broadly, over time urbanisation will help close the divide between developed and developing countries, where the problem is not typically one of repairing, improving or greening infrastructure, but of actually building it in the first place. If infrastructure investment is an economic enabler in North America, in the developing world it is a game changer.

Urban infrastructure quality has the power to bolster the economic strength of our cities, or to prevent them from achieving greatness. As the pace of urbanisation continues to accelerate in North America and around the world, robust cities are central to a country's global competitiveness. Failing to design, modernise and deliver the infrastructure our cities need will indeed be at our own peril. ■

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