

Introduction



The Greater Toronto Airports Authority (GTAA) welcomes the opportunity to help shape Canada's first National Infrastructure Assessment (NIA) and appreciates the government's recognition of the importance of planning now for our future needs. The COVID-19 pandemic has caused extraordinary global economic disruption, making it even more critical to create a new roadmap for infrastructure investment in Canada that stimulates growth, boosts trade, and creates jobs.

The competitiveness of Canada's airports is an integral part of establishing a long-term vision for where and how both public and private sector infrastructure investment is to be focused. And as Canada moves to build back better following this unprecedented global event, it is imperative to ensure that this trading nation's key transportation assets are well considered. Airports are critical national infrastructure that support job creation, economic development, trade, tourism, and foreign direct investment. Airports are not just the front door that reflect a country's prominence and sophistication, increasingly, countries that are seeking to be more globally competitive, demonstrate their vision through their state-of-the-art airports.

Throughout the pandemic, Toronto Pearson played an essential role in bringing much needed PPE (Personal Protective Equipment), vaccines, medical supplies, and other essential goods into Canada. Even as passenger air traffic came to a virtual standstill, Toronto Pearson enhanced its efforts to accommodate the substantially increased cargo activity to ensure the continuation of the domestic and global supply chain. As the country's largest airport and Canada's global gateway, Toronto Pearson is a key driver of economic development, good jobs, and sustainable growth for all Canadians. It is also the place where newcomers to Canada arrive home for the first time.

Pre-pandemic Toronto Pearson was the 5th most connected airport in the world¹ and the 4th largest port of entry into North America; and as a result, played a key role in making Canada a global trading nation. In 2019, greater than 40% of air cargo in Canada came through Toronto Pearson, 70% of which was transported in the underbelly of passenger planes. Global connectivity is a key success factor not only in the movement of travellers and goods, but in expanding Canada's Gross Domestic Product (GDP). Each of Toronto Pearson's daily international flight services has an estimated \$54 million impact on Canadian GDP.² Toronto Pearson is the anchor of the Airport Employment Zone (AEZ), ranking only behind downtown Toronto as the second largest employment zone in Canada. The AEZ employs more than 300,000 people, including 50,000 directly in airport operations.

The pandemic's severe impacts have placed Canada on a slower growth trajectory. We must return to a place where a healthy and competitive Toronto Pearson helps Canada to compete globally for jobs, investment, and trade, while also planning for the airport of the future. COVID-19 has also prompted a rethinking of how we keep passengers healthy, make spaces safe, efficient, and accessible, and how we stay globally connected. The existential climate crisis has made it clear that the aviation sector must accelerate efforts to transition to net-zero emissions. To do all of this, we need to think big, and we need to think bold!

The GTAA has identified a series of near and medium-term infrastructure projects that, if prioritized, will address these urgent external pressures and help achieve the goals of the NIA. Investments in border modernization, decarbonizing airport operations, improving airport access for people and goods – especially through better transit connections – are the core of our long-term vision to create jobs, address the impacts of climate change, and make spaces healthier and more equitable. We also must rethink the partnerships and funding models needed by better coordinating across jurisdictions and through public investment, which could include public-private partnerships in the transformative infrastructure projects required to build the airport, and Canada, of the future. As we set the priorities that will help us chart our way to 2050, the GTAA's vision is underpinned by a data-driven, outcome-oriented approach to sustaining airport competitiveness, which is a critical factor to ensure a healthier, stronger, more sustainable economy for future generations of Canadians.

 [&]quot;Megahubs International Index", OAG, pg. 4. https://www.oag.com/hubfs/Free_Reports/Megahubs/2018/Megahubs_International_Index_2018.pdf?hsCtaTracking=cb970431-e381-4ada-b54b-b168f98d9eb7%7Cf52e0462-7e9f-4091-a2e7-91d2eda51d07.

^{2. &}quot;Toronto Pearson's Economic Impact: A report for the Greater Toronto Airports Authority", Frontier Economics, 20 October 2016. https://cdn.torontopearson.com/-/media/project/pearson/content/corporate/our-future/pdfs/toronto-pearson-economic-impact-report-2016.pdf?modified=20190301001653&la=en

Impact of the Pandemic

COVID-19 has had an unprecedented impact on the aviation sector, resulting in significant declines in passenger traffic and revenues. According to analysis done by the Canadian Airports Council (CAC), the number of passengers that moved through Canada's airports in April 2021 was at only 7% of 2019 levels. This steep reduction had an adverse impact on airport financial viability. Despite more than a decade of steady growth across the country before COVID-19, air connectivity has been severely reduced. Businesses from across the country that used to depend on aviation connectivity to reach their customers and suppliers no longer have the same reliable options, and the loss of connectivity in northern and remote communities has had a particularly significant impact on access to critical services and supplies.

The longer it takes to recover from these challenges, the more difficult it will be for Canada's airlines to compete in the same markets that are also served by foreign carriers who may have an advantage due to support received as part of their government's overall pandemic support plan.³ Other countries are ensuring the future competitiveness of their economies by providing significant financial grants and other direct pandemic aid to their airports. Those countries are already well on their way to recovery, while Canada is at risk of becoming less competitive vis-à-vis the U.S. and Europe.



In 2020 at Toronto Pearson:



Passenger traffic was down 74% from 2019. In Q4, passenger traffic was down 87% year over year.



Total airport revenues decreased by 46% resulting in a net loss of over \$383 million, a decrease of 374% compared to 2019.

2020 financial results prompted:



A 27% reduction in the GTAA's workforce; Partners have laid off 13,500 people.



A significant and immediate reduction of \$265 million in the GTAA's 2020 capital expenditure program reduction (from \$610 million to \$345 million).

In Q1 2021 at Toronto Pearson:



Passenger traffic was down 89% from 2020 in Q1 2021



Total airport revenues in Q1 2021 were down 55%, compared to 2020, resulting in a net loss of \$127 million.



The GTAA's capital expenditure program continues to be significantly reduced as compared to the GTAA's pre-pandemic capital plan.

As a result of the COVID pandemic and changing travel restrictions in place around the world, there is very limited accurate visibility on the future of travel demand. The CAC has estimated that passenger and flight activity may not return to pre-COVID-19 levels for at least **three to five years.**

The global competition for air connectivity related jobs will continue even as demand returns, but due to the financial constraints brought about by the COVID-19 pandemic, airports (including Toronto Pearson) have had to dramatically reduce their current and future year capital expenditure programs.

^{3. &}quot;Holding Pattern: Canada Needs a Swift Recovery and Competitive Air Sector", Canadian Airports Council, 27 May 2021. https://canadasairports.ca/wp-content/uploads/2021/05/CAC-Whitepaper-26May2021-Final.pdf

Where We are Starting: Progress on Toronto Pearson's Infrastructure Priorities

Toronto Pearson is a recognized and award-winning climate leader within the global airport industry and has already begun making investments to achieve its environmental goals.

- The GTAA shares the government's commitment to a netzero future and has demonstrated significant progress

 including by surpassing the objectives of the airport's
 "20/2020" Sustainability Strategy to reduce greenhouse gas
 (GHG) emissions by 20% (from 2006 level) by 2020;
- We have created a roadmap to net-zero by 2050 for GTAA owned and operated facilities, including a milestone of a 45% reduction in GHG emissions by 2030;
- We have invested in energy reduction projects that focus on switching to energy-efficient LED lighting and upgrading the airport's heating, ventilation, and air conditioning systems; and
- There are 32 electric vehicle charging stations around Toronto Pearson for use by the public, with 80 more used by for service vehicles that are part of airside operations.

As in all sectors, innovation is also a key driver of airport competitiveness. Toronto Pearson leads in innovation, bringing cutting edge technologies to the airport to create a healthy environment for passengers and workers.

- In June 2020, the GTAA launched its "Healthy Airport" commitment, and Toronto Pearson was the first airport in Canada to be awarded the Airports Council International Healthy Airport Accreditation. Toronto Pearson was also named the best airport in North America for the fourth year in a row and received recognition for "Best hygiene measures by region";
- We established CleanSlate stations to allow passengers and workers to disinfect personal electronic devices and deploy autonomous floor cleaners and UV lights in high-touch areas to enhance hygiene;
- The GTAA partnered with BlueDot to manage future risk from COVID and other infectious diseases; and
- We have been a leader in COVID testing; working with government to establish testing regimes for passengers and workers and developing our own studies in collaboration with the Industrial Research Assistance Program, which included the construction of an on-site Covid testing laboratory.



One of the key areas for innovation includes better ground transportation connections for travellers. The GTAA is committed to affordable, clean, safe, and efficient public transit options and has been working closely with Metrolinx and other transit agencies on improved transit access to Toronto Pearson. This includes:

- Improvements to service and related infrastructure enhancements to the UP Express;
- Studying planned Eglinton Crosstown West, Finch LRT, and Kitchener GO transit connections to the airport;
- Improving the flow of busses around the airport to increase transit service; and
- Creatively addressing last-mile solutions.



Our GHG emissions have dropped by over 60% since 2006 - the equivalent of 44,800 tonnes of CO².

Where We are Going: Toronto Pearson Priorities for the NIA

1. Assessing Canada's infrastructure needs and establishing a long-term vision

The core priorities identified for the NIA are promoting economic growth, driving job creation and competitiveness, addressing climate change, increasing resilience, and improving social inclusion and quality of life for all Canadians. The GTAA's roadmap for needed near and medium-term infrastructure investment projects aligns with these goals. Our vision:

- ✓ Will help build a stronger, greener, more resilient economy;
- ✓ Plays a role in sustaining the social and economic wellbeing of our communities;
- Provides people with safe, reliable, efficient, and accessible spaces and connectivity options;
- Creates and maintains good paying jobs; and
- Supports foreign direct investment, trade, tourism, and global connectivity.

Toronto Pearson is Canada's main trade corridor to the world and the AEZ is the second largest employment zone in the country. Unlocking growth at Pearson and building the airport of the future is one of the most effective ways to unlock growth in Canada.

A 2016 Frontier Economics study commissioned by the GTAA predicted the potential to increase airport generated and facilitated jobs from 332 000 to 542 000, and increase airport-generated GDP from \$35.4 billion to \$62.1 billion by 2030.⁴ Air connectivity is key to this significant growth opportunity.

After 9/11, airports, travellers, and workers had to adjust to new rules and regulations. Similarly, there will be a new set of rules as a result of the pandemic. Some of these new rules will require investments in infrastructure and possible airport modifications. Therefore, when assessing Canada's needs, it is important that the government prioritize critical investments in airport infrastructure such as technology to modernize the Canadian border, creating a touchless/low-touch passenger flow, passenger verification through digital travel credentials and standard protocols for digital health verification. Other projects such as better goods movement processes, better transit connections, important accessibility improvements and investments in achieving the airport's net-zero goals will help to support a sustainable and balanced economic recovery.

Our infrastructure roadmap is green, digital, efficient, healthy, and fair, driving a more globally competitive future.

The unique economic impact of the airport: 332 000 jobs generated and facilitated by Toronto Pearson today

101,000 direct, indirect and induced jobs

Induced Employment
Job facilitated through the spending of direct and indirect employees

Indirect Employment
Job facilitated in the supply chain as a result of the airports activities

Direct Employment
Job created at and around the airport

52,000 jobs through tourist spending



Jobs facilitated by expenditure incurred by inboud visitors

179,000 catalytic jobs



Jobs resulting from the FDI and trade facilitated by the airport's additional connectivity

Source: Frontier Economics, Quod and MNP.

benefits within their respective country. Few other comparable infrastructure investments have the same potential impact.

Pre-pandemic Toronto Pearson was the 5th most connected airport worldwide, and anchor to the 2nd largest employment zone in all of Canada. Without proper investment to remain competitive with other global airports, Toronto Pearson is at risk of losing its status as the 5th most connected airport worldwide and subsequently causing jobs to be lost in Canada.

Big or small, an airport is a magnet for jobs, investment, and economic activity. The more direct connections that an airport serves, the greater the strength of the magnet for foreign direct investment (FDI). Companies, from around the world, choose to locate near an airport so they can easily and quickly move goods and people to the places they need to go on direct flights. The more direct connections, the more attractive the adjacent lands are for investment and head office locations. These direct flights, in turn, provide access to Canadians to travel the world and for the world to visit Canada, generating significant tourism

^{4. &}quot;Toronto Pearson's Economic Impact: A report for the Greater Toronto Airports Authority", Frontier Economics, 20 October 2016. https://cdn.torontopearson.com/-/media/project/pearson/content/corporate/our-future/pdfs/toronto-pearson-economic-impact-report-2016.pdf?modified=20190301001653&la=en

Getting people and goods around faster, cheaper, and cleaner

The GTA has urgently needed mobility solutions for one of Canada's most congested zones for some time. As Canada's second largest employment area, there were normally about 1,000,000 trips to and from the AEZ each day before the pandemic. This is not expected to change post-pandemic, even with more flexible work from home arrangements. There were also almost 450,000 people travelling from the West GTHA each day to the East. Many travel downtown, but more than double that number travel across the "northern and midtown arcs" of the region – and while 42% of the trips downtown are via public transit, along the 407 and 401 corridors it is less than 10% each. Even with the emergence of hybrid work arrangements, we need to act now to manage commuting pressures, reduce future GHG emission levels and increase transit access to new employment areas.

Better transit connectivity in Canada's second largest employment area would:

- ✓ Allow for higher value, intensified employment lands.
- Connect people to jobs and amenities and business to talent.
- Free up road assets for more efficient goods movement between modes.
- ✓ Encourage more sustainable travel modes.
- ✓ Unlock the economic potential of the AEZ: Some of the world's busiest airports have leveraged the concept of the "Aerotropolis" to become global hubs of business, innovation, and residential development all reliant on seamless ground accessibility to the airport and immediate air connectivity to the world.

Further, a significant ground transportation hub twinned with Canada's largest and most globally connected airport is a proven recipe for economic growth. As Canada considers how infrastructure can improve access to affordable, clean,

safe, and efficient transportation options and how to make the connections between the required infrastructure and Canada's strategic trade corridors, we have identified critical projects that require government support which includes a national commitment to invest in a regional transit centre in the Toronto area, serving Toronto Pearson and the AEZ.

Individual projects requiring government study and commitment include:

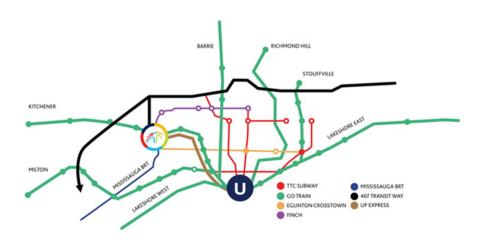
- The Eglinton Crosstown West Extension;
- The Finch LRT;
- The Kitchener GO;
- Various regional and local bus improvements and last mile connections; and
- · Continued connection of the UP Express.

A June 2021 Ontario Real Estate Association report⁵ named a Pearson area transit hub as the first of ten critical infrastructure projects for a more competitive Ontario, with the potential to:

- Add 50,000 to 70,000 additional workers from new businesses and employment space in the AEZ;
- Take 43 000 existing vehicles off nearby roads daily, freeing up capacity for the movement of goods; and
- Increases productivity by reducing more than 3 million hours annually of lost time stuck in traffic.

Building Connectivity in Priority Neighborhoods

Despite being an employment hotspot, some communities near the airport have unemployment rates above the provincial average and are underserved by transit. A major transit hub would connect those residents to new jobs and services, giving them the upward income mobility to grow and prosper.



^{5. &}quot;The Ten Infrastructure Projects for a More Competitive Ontario", Ontario Real Estate Association, June 2021. https://top10projects.ca/downloads/ten-infrastructure-projects-for-a-more-competitive-ontario/

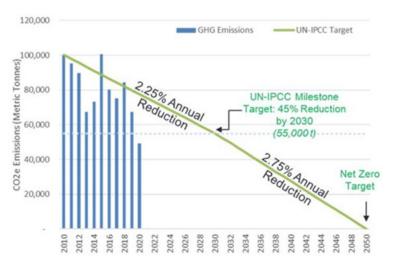
Powering our economy for clean energy systems and netzero structures

As we looks toward recovery, Toronto Pearson has an essential role to play in a more resilient Canada. Transitioning the country's largest airport to a net-zero future requires a data-driven approach. Using clean technologies and innovative decarbonization solutions, we have identified a series of critical green infrastructure projects that will have a measurable impact on the GTAA's climate goals while supporting Canada's transition to a net-zero economy:

- Retrofitting Toronto Pearson's 117-megawatt (MW)
 Cogeneration Facility to clean energy;
- Converting to clean energy using solar PV electricity;
- Energy efficient facility retrofits and new construction;
- Heating, and cooling from energy in sewers;
- Geothermal, solar walls, and the purchase of offsite clean energy;
- Accelerating green aviation with sustainable aviation fuel supply chain development and infrastructure for electric and hydrogen powered aircraft;
- · Carbon removal technology and carbon offsets; and
- Switching to electric vehicles through fleet conversion (including airside buses).

Pearson's Cogeneration facility accounts for approximately half of the GTAA's total GHG emissions. The airport's path to net-zero must include reducing the carbon generated by the Cogeneration plant via conversion to natural gas, hydrogen, or another clean alternative.

GHG Trend toward Net-Zero GHG for GTAA Owned and Operated Facilities



Staying connected in a digital society and improving social spaces and services

In the post-pandemic world, a healthy, touchless approach to passenger processing is required to help protect passengers and our workforce. Investments are needed in projects that support innovation and enhance the digital tools to deliver on improved health and efficient performance. Toronto Pearson is committed to creating accessible spaces that promote well-being. The GTAA has identified a series of projects to reduce barriers and leverage next-generation digital technologies to improve our spaces and services:

- Border modernization for reduced-touch, faster border clearance processes, including biometrically enabled systems at check-in and boarding with lower contact and accessible technology;
- Building modifications to accommodate new technology and improved passenger flows;
- Use of digital identity verification to support healthier, more efficient travel;
- Verifying passenger health through globally aligned testing standards and credentials;
- Facility renovations to create an accessible and low touch environment; and
- Development of accessible self-service technology for parking and passenger information kiosks.

Our people are our strongest asset. Investment in technology is not about replacing people with machines; it is about using our workforce more effectively in more fulfilling, and higher value roles.



2. Improving Coordination Amongst Infrastructure Owners and Funders

Toronto Pearson is located within and adjacent to several of Canada's largest municipalities. Infrastructure planning for the airport requires coordination between many stakeholders and aligning visions that are established at local, provincial, and federal levels. An outcome of the NIA must be to promote increased coordination among infrastructure owners and investors.



The GTAA recommends:

- Improved coordination between municipal, provincial, and federal plans. Infrastructure planning occurs at various levels of government, and within these jurisdictions there are multiple funding mechanisms. Plans at each level should be linked, and funds coordinated between them to ensure improved, efficient collaboration and alignment on identified priorities. This is particularly important for key national transportation assets such as Toronto Pearson, which crosses multiple jurisdictions.
- Establishment of a formalized federal/provincial collaboration and consultative mechanism. Improved coordination between provincial and federal governments

- to conduct joint assessments of collective gateway multimodal transportation systems will identify priority areas for <u>funding with increased</u> potential for returns on investment.
- Leadership by government to support private sector partners to decarbonize and meet 2050 goals beyond the immediate footprint of the airport. For example, this could be facilitated in the goods movement sector by accelerating the transition of diesel transport trucks to electric.

3. Determining the best ways to fund and finance infrastructure

As the NIA explores opportunities to improve public and private sector funding, financing, and innovative ways to pay for infrastructure, a long-term, goal-oriented approach is needed as opposed to short-termism. A common weakness in the infrastructure investment decision process is the absence of analysis that captures what is at risk in the future if an investment is not made today.

A Canadian Centre for Economic Analysis report, *Navigating the COVID-19 Socio-economic Shock: How infrastructure investments will facilitate future growth in Ontario* highlights that "smart infrastructure investments are only fully realized over the long-term. For this reason, investing in new infrastructure should not be seen as a reflex stimulus response but rather a consistent, ongoing journey along a path to ensuring conditions are in place for long-term economic recovery and growth."

The GTAA's sixty-year ground lease with the federal government (that began in December 1996 and contains a twenty-year term extension option) requires that the GTAA return the airport at the end of the lease unencumbered by debt. This stipulation could hinder the GTAA's ability to plan and invest in long-term infrastructure development towards the end of the lease.

In rethinking how it funds and finances infrastructure, the government should take a more flexible approach to working with airports to allow the infrastructure investments required to maintain the competitiveness that drives a significant part of Canada's economy. This will continue to be particularly critical from now until such time as airports are back in a position of financial strength.

The GTAA recommends:

- The Canada Infrastructure Bank play a role in assisting airports to "Build Back Better". The government had the foresight to set aside significant funding through this program for infrastructure projects that support economic growth for the benefit of Canadians. Canada's airport authorities and the GTAA in particular are among the most reliable partners in the country for the CIB to count on to deliver large scale projects on budget and on time, while meeting our shared goals.
- Over the next ten years, the government consider reinvesting \$1 billion in airport ground rent to critical and strategic airport projects at Toronto Pearson.

 Much like the ten-month waiver provided in March 2020 that helped stabilize the GTAA's finances at a time when revenues had been dramatically impacted due to almost non-existent passenger activity, this is a long-term solution whereby airport rent would be reinvested in critical new infrastructure. This would permit the GTAA to both make new infrastructure investments and extend the life cycles of existing assets. Directly reinvesting into infrastructure projects will help meet objectives outlined in the NIA by driving economic growth and job creation, addressing climate change, and improving social spaces and wellbeing.

^{6. &}quot;Navigating the COVID-19 Socio-economic Shock: How infrastructure investments will facilitate future growth in Ontario", Canadian Centre for Economic Analysis, June 2020. https://rccao.com/research/files/How-Infrastructure-Investments-Will-Facilitate-Growth-June-2020.pdf



Conclusion

With its first National Infrastructure Assessment, it is critical that the government establish data-driven, strategic infrastructure priorities that include well-coordinated investments to ensure that key national infrastructure assets such as Toronto Pearson are positioned to support Canada's ability to compete into the future. In our view, the government needs a long-term, goal-oriented approach which not only addresses the immediate value of the investments we make, but also the critical importance of timing to Canada's future prosperity.

By delivering projects that will drive competitiveness and unlock the enormous economic potential of Toronto Pearson, together the government and the GTAA can build a more prosperous, inclusive, and resilient Canada. By rethinking how we collaborate to coordinate and fund infrastructure priorities, together we can turn aspiration into reality and meet our shared economic, climate and inclusivity goals. Investing in Toronto Pearson – Canada's gateway to the world - is investing in the best of our country. When people arrive at Pearson, they are arriving in Canada - safe, welcoming, equitable, innovative, and a leader in climate change action.





