PLANNING THE NEXT GGH
EXECUTIVE SUMMARY

The economic landscape of the Greater Golden Horseshoe (GGH) is in the midst of a dramatic shift. A more balanced pattern of urban and suburban employment growth has given way to the hyper-concentration of knowledge-based activities in and around downtown Toronto. This pattern is reinforced by the loss or slower growth of the economic activities that have historically been dispersed throughout the region.

Office work is being redefined, with the loss of administrative jobs resulting from computer technologies and automation, and new ways of working that mix offices, labs, tech space, startups, universities and colleges, and other uses. Disruptive technologies, like blockchain or Artificial Intelligence, have increased uncertainty, as have threats of trade disruptions.

Understanding this shift is especially important as municipalities review and modify their official plans to conform with the 2017 *Growth Plan for the Greater Golden Horseshoe*. These plans will shape growth and land use in the region for years to come, and need to ensure the right kinds of development opportunities in the right places to meet the changing requirements of business, supporting the economic vitality and resilience of the GGH.

Planning the Next GGH outlines how the GGH economy is changing, identifies the key drivers of this change, and describes the resulting economic landscape of the region. The analysis focuses only on employment in the tradeable industries (that is, "core employment") that are the economic foundation and shape the geography of the GGH, leaving aside population-related industries such as retail and personal services. The report maps the current geography of jobs in the region and patterns of change between 2006 and 2016. This work builds on the 2015 Neptis report, *Planning for Prosperity*.

The key questions addressed in this report are:
• What kinds of economic activities should we be planning for? How is the makeup of the GGH changing? What kinds of economic activities are growing, and what kinds are slow-growth or in decline?

- Where in the region should we be planning for growing activities, and within what kinds of urban environments? What areas are declining?
- What areas are most vulnerable to trade disruptions and automation?
- In the context of economic restructuring, disruption, and uncertainty, how can we make planning more effective to support key Growth Plan objectives such as the efficient use of infrastructure and integration of transit and land use planning? And how can land use planning support the economic resilience, competitiveness, and prosperity of the regional economy?

NEW ANALYTICAL APPROACHES

In order to answer these questions, new analytical approaches are needed. Conventional planning for employment has relied on linear extrapolations of past trends and analyses of economic change at a broad industry level. This approach does not capture the shift under way in a regional economy being reshaped by technological disruption, and provides little specific information on the kinds of economic activities that land use planning needs to provide for.

This report offers, first, a framework for understanding long-term structural change, the key drivers of restructuring, and the new economic geography.

Second, it introduces 12 industry "Archetypes" as an analytical tool designed specifically to better inform land use planning for employment-related uses. Archetypes are groups of tradeable industries that share both similar economic characteristics and locational preferences, helping planners make clear links between economic change on one hand and spatial patterns on the other. Archetypes differ from the concept of "clusters" as defined by Michael Porter in 1990 in *The Competitive Advantage of Nations* – a geographically proximate group of interconnected companies and institutions. Together, employment in Archetypes represents 1.46 million of the 2.38 million core employment jobs in 2016 across the GGH.

Finally, we also undertake an analysis of the geography of disruption, identifying the places and municipalities in the GGH that are most vulnerable to automation and potential trade disruptions.

The intelligence gained from such a nuanced dynamics-driven, regional-level spatial analysis can be used to create more anticipatory regional and local planning frameworks, better suited to face potential challenges, address future land needs, and create the right kinds of urban environments and planning regimes.

WHAT KINDS OF ECONOMIC ACTIVITIES SHOULD WE BE PLANNING FOR?

The transition to a knowledge economy is driven by globalization and technological change. This shift is challenging routine work, and fostering the growth of skilled, tech-related, and knowledge-intensive activities.

Booming Archetypes include Soft Tech, Finance, High Order Business Services (HOBS), Arts and Design, Higher Education, and Logistics. Declining Archetypes suffering net job losses include Other Manufacturing, Other Wholesaling, and Back Office.

WHERE SHOULD WE BE PLANNING FOR EMPLOYMENT GROWTH, AND IN WHAT KINDS OF URBAN ENVIRONMENTS? WHAT AREAS ARE DECLINING?

Hyper-concentration in and near downtown Toronto

Economic drivers have strengthened the forces of spatial clustering, and restructuring has brought about the hyper-concentration of economic activity in and around downtown Toronto. The Archetypes that show the most growth are also those that have strong tendencies to concentrate spatially. In the GGH, Finance grew by 47,000 jobs between 2006 and 2016, HOBS by 25,000, Soft Tech by 19,000, and Arts and Design by 10,000 jobs. Overall, downtown Toronto has seen the addition of 67,000 new "core" jobs and 85,600 total jobs between 2006 and 2016.

EMPLOYMENT BY ARCHETYPE, GGH 2006 AND 2016

	2006	2016	Change	% Change
Finance	228,150	275,300	47,150	20.7
High Order Business Services	98,215	123,345	25,130	25.6
Back Office	54,710	51,715	-2,995	-5.5
Arts & Design	102,645	112,665	10,020	9.8
Soft Tech	71,960	91,270	19,310	26.8
Hard Tech	72,810	51,225	-21,585	-29.6
Science-based	52,950	64,980	12,030	22.7
Higher Education	59,635	78,100	18,465	31.0
Logistics	25,170	32,635	7,465	29.7
Other Wholesaling	139,920	121,750	-18,170	-13.0
Special				
Aerospace	10,815	13,150	2,335	21.6
Telecoms	25,400	32,035	6,635	26.1
Pharma	22,960	25,175	2,215	9.6
Other Manufacturing	516,255	386,480	-129,775	-25.1
Archetypes Total	1,481,595	1,459,825	-21,770	-1.5
Archetypes Total w/o Other Manufacturing	965,340	1,073,345	108,005	11.2
Total GGH core employment	2,300,015	2,375,465	75,450	3.3
Total GGH employment	3,437,935	3,710,915	272,980	7.9

A slowdown in job growth elsewhere in the GGH

Outside the Toronto core, we see a slowdown in job growth. Between 2006 and 2016, three of the five Suburban Knowledge-Intensive Districts (SKIDs) – the suburban areas that had previously attracted the most significant core employment growth – saw no growth or even losses: Markham, Sheridan, and Waterloo. Only the Airport and Meadowvale SKIDs grew between 2006 and 2016, with the latter expanding by almost 7,000 jobs. Overall, core employment in the SKIDs grew by a modest 8,500 jobs in the 10-year period. By contrast, in the 2001–2011 period, core employment in the SKIDs grew by 35,000 jobs, while downtown Toronto added 42,000 jobs, as described in *Planning for Prosperity*.

Employment growth in the SKIDs to 2016 included Soft Tech, Finance, Pharma, Telecoms, and Science-based Archetypes, and to a lesser extent, Hard Tech. Outside the SKIDs, Telecoms and Pharma exhibit small concentrations of employment growth. Meanwhile, Logistics has seen significant job growth across the region.

There was little to no core job growth in the Urban Growth Centres (UGCs), Major Transit Station Areas (MTSAs), and other Strategic Growth Areas designated in the Growth Plan.

Areas of job loss across the GGH

There are significant areas of core employment loss across the region, including southern Oshawa, the inner suburbs of the City of Toronto, southerly employment areas of the 905, south of the QEW, in Hamilton city centre, and in Kitchener and Cambridge. The megazones, which had seen modest growth in core jobs between 2001 and 2011, lost over 5,000 jobs between 2006 and 2016.

These changes can be attributed to declining employment in certain Archetypes: including the loss of 130,000 Other Manufacturing jobs, 22,000 Hard Tech jobs, 18,000 Other Wholesaling jobs, and 3,000 Back Office jobs in this period.

WHAT AREAS ARE MOST VULNERABLE TO AUTOMATION AND TRADE DISRUPTIONS?

Employment in the industries most vulnerable to automation represents more than 692,000 jobs. These are primarily manufacturing industries, so the geography of vulnerability reflects the distribution of these jobs in employment areas across the GGH. This includes the three megazones, Toronto's inner suburbs, and the cities of Guelph, Oshawa, Alliston, Cambridge, and Oakville.

Accommodation and food services is also an industry at high risk of automation – and the only industry in our report that represents non-core employment. Employment in this industry shows a different geography from other vulnerable industries, with a concentration in downtown Toronto, and a pattern following the geography of population elsewhere.

Employment in the industries that are most vulnerable to trade disruptions represents almost 200,000 jobs. Here too, manufacturing industries and districts figure prominently, including auto manufacturing locations, such as those in Guelph, Oakville, Alliston, Cambridge, and Oshawa.

HOW CAN WE MORE EFFECTIVELY PLAN THE NEXT GGH?

A shifting economic landscape, and growing disruption and uncertainty call for new approaches to land use planning.

Planning agencies at all levels must factor the new economic geography of the GGH into land use planning. It affects what kinds of employment-related growth municipalities can expect, where, and the kinds of urban environments needed to accommodate new employment. This is critical to successful Growth Plan implementation, as well as planning for places and major investments that depend upon anticipated employment growth. To this end, Growth Plan employment forecasts and allocations could be updated and more robust analytical approaches adopted.

Strategic, regional perspectives are needed, such as more anticipatory, forwardlooking planning approaches. Proactively planning to ensure growing Archetypes like Finance, HOBS, Soft Tech, Arts and Design, or Logistics are accommodated is key to effective planning and the continued economic success of the region.

The hyper-concentration of job growth raises critical issues about planning for a core under intense growth pressure, and an increasingly dominant single centre for the GGH. A strategic, regional economic development perspective might ask if we ought to think seriously about planning for a second regional "downtown" elsewhere, to promote economic resilience, reduce commutes, and achieve other benefits.

Hyper-concentration also has implications for Urban Growth Centres (UGCs), Major Transit Station Areas (MTSAs), and other Strategic Growth Areas outside downtown Toronto. Planning strategies could include the proactive updating of plans and renewal of employment environments to meet the needs of new economy businesses. And since the supply of places designated for dense office uses likely far outweighs demand, serious consideration should be given to prioritizing among these many nodes and corridors.

While planning in the GGH has tended to focus on growth, there is a need to address areas of transition and loss. Along with other planning strategies, close integration of planning with place-based economic development strategies would support regeneration of these areas.

Planning can play a role in addressing potential disruptions and uncertainty, promoting economic growth and resilience. More anticipatory and flexible planning approaches can ensure the evolving needs of businesses are met, and create urban environments that support innovation. Planning frameworks can offer greater flexibility in permitted employment uses, and anticipate and guide the evolution of buildings, densification, integration of transit, and other factors.

A strategic, regional perspective is key to the competitiveness and successful planning of the region. For example, conversions of employment land that are considered only in the municipal context may lead to suboptimal outcomes for the regional economy as whole. A regional economic development strategy, supported by a regional database, would also help guide the successful planning of employment areas.

Better planning for the many diverse areas that contain employment in tradeable economic activities is critical to the future of the Greater Golden Horseshoe. Areas catering to business play a key role in achieving fundamental planning objectives related to the efficient use of infrastructure, sustainable transportation, and a livable region. Also, the continued economic competitiveness and prosperity of the GGH depend in part upon effective land use planning.

Successful planning relies on integrating an understanding of the economic dynamics and new realities that we face in the Next GGH.