
Brampton Economic Development Master Plan

May 25, 2018

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Introduction: Building on Brampton's new approach to economic development

Showcasing Brampton

The 2017–18 bid for Amazon's second headquarters helped put the Toronto region and Brampton on the map with regard to investment attraction.

For example, the City's partnership with Toronto Global allowed the City to spread the word about Brampton's current and potential employment lands, young and skilled talent pool, and emerging and active cultural scene, as well as significant regional investments that have been made in transportation infrastructure.

Unlike other Canadian cities, Brampton has undergone significant population growth over the last three decades. It is now the ninth largest, and fastest-growing, city in Canada, thanks in part to a significant influx of new Canadians. It is expected that the city will continue to grow at a strong rate over the next 20 years, with the estimated population in 2041 being almost 900,000, compared to the current figure of more than 600,000.

However, more than 60 percent of current working residents leave the city every day to go to work. The number and right kind of jobs—suited to residents' education, talents, skills and preferences—are simply not available within Brampton's borders. In order to bring 140,000 net new jobs to Brampton over the next 20 years—and in light of global competition, technological disruptions and demands for talent—Brampton must continue to deliver services and programs that support talent development, new Canadians, and increased innovation and competitiveness.

To this end—and to ensure Brampton becomes a significant competitor to other Canadian and global cities—the City is transforming its approach to economic development. Acknowledging the role culture plays in the vibrancy of the city, the Economic Development and Culture office is driving business development and investment in key sectors (advanced manufacturing, health and life sciences, innovation and technology, entrepreneurship and logistics) and taking other important steps, including these:

- playing a key role in the Advanced Manufacturing Supercluster (Toronto to Waterloo region);
- providing entrepreneurial services and resources through the [Brampton Entrepreneur Centre](#);
- developing a new health and life sciences cluster in the downtown;
- focusing on creating a medical hub through the Community Improvement Program;
- creating an innovation hub around the new Ryerson University campus and the Centre for Innovation;
- building a strong technology community; and
- developing a culturally vibrant community and a strong sense of place in Brampton.

Yet the City must push beyond these initial measures to develop and invest in new approaches. It must embrace measured risk-taking, emphasize adaptability and agility, step up its investment activity, and lead partnerships with businesses, the academic sector, not-for-profits and other groups to meet its goals.

Brampton is in a uniquely competitive position. It must make the most of its large, diverse and growing population by generating improved employment, investment, innovation and socio-economic benefits of its own. Brampton

Steering Committee members

Private sector

- Cliff Benson, VSETA Engineering and Brampton Mastermind
- Joe Crump, The Crump Group, Inc.
- Natalie Francis, Marketing Strategist
- Kanwar Dhanjal, Just Instruments Inc.
- Evan Moore, Prouse, Dash & Crouch, LLP
- Rod Rice, Rice Development Corp.
- Heather Strati, Deloitte Private, and Chair, Brampton Board of Trade

Non-governmental organization

- Shalini da Cunha, Executive Director, Peel Halton Workforce Development Group

City of Brampton

- Councillor Jeff Bowman
- Councillor Doug Whillans
- Robert Seguin (Committee chair)
- Martin Bohl
- Tyson Ma
- Denise McClure
- James Macintyre
- David Smouter
- David Waters

needs to become a destination for sustainable job growth and a strong regional economic partner to compete, and attract talent and investment.

Brampton's economic development work over the coming decades must not only be prioritized with key sectors and assets in mind, but also fit into recent developments—such as the announcement of a new Ryerson University campus, the Centre of Innovation, investments in the health cluster, and Brampton's participation in the Advanced Manufacturing Supercluster—while continuing ongoing support for businesses.

A plan for the future

In 2016, Brampton City Council approved the development of a plan to guide the City of Brampton's economic development activities for the next 25 years.

This forward-looking plan is fully integrated with the City's 2016–2018 Strategic Plan and is informed by the [Brampton 2040 Vision: Living the Mosaic](#) and the [Culture Master Plan](#). The development and involvement of the steering committee was rooted in the desire for a collaborative process leading to the evolution of the master plan.

Through the Strategic Plan, Council endorsed the priority to make both the City and Brampton's people future-ready. The Strategic Plan brings six “game changers”—[Health Partnerships](#), [Planning Vision](#), [Riverwalk](#), [Regional Connections](#), [University](#) and [Urban Centres](#)—into sharp focus as the drivers of the next 30 years of life and growth in Brampton.

These pillars tie directly to economic development, making it essential that the City develop and follow a robust and proactive plan to bring about the desired future—that is, “a mosaic of vibrant centres with quality jobs, a rich range of activities, and integrated living,” as the Brampton 2040 Vision describes it.

This plan gathers current information on the local, regional and global economic challenges the City and its partners must grapple with to build a healthy and vibrant community

Original research grounds the plan, most notably a survey of six cities across the globe that share characteristics with Brampton and face similar challenges. The results shed light on the creative steps—both successful and unsuccessful—the cities took and that, in turn, inspired a made-in-Brampton course of action that reflects local circumstances and the city's place in the Toronto region, southern Ontario, Canada and the world.

Led by a steering committee made up of select business and community leaders, and a number of City representatives, the City also sought the input of Brampton business leaders and entrepreneurs through four focus groups.

The resulting plan forms the foundation on which the City can develop and implement key policies, actions, plans, tactics and programs to achieve its goals.

The big picture: Economic trends that will affect Brampton's growth

Since Brampton's economy is not immune to broader economic trends, the City's emerging approach to economic development must be fully informed by local circumstances and also regional, national and global patterns of change.

As foundational work for the development of the Brampton Economic Development Plan, City staff undertook a thorough review of the business and economic literature to fill out their understanding of the ever-changing strategic and economic landscape.

Of particular note are the numerous studies that have appeared on future growth and constraints related to disruptive technologies, including developments such as artificial intelligence, the Internet of Things, quantum computing and cyber-security. Underlying these analyses is the recognition that as these technologies become minimum requirements, sustained innovation and commercialization will be central to long-term business growth and community prosperity.

Such technological changes have also prompted analyses of future impacts on talent, workforce development, and demands for new and continuous learning, as well as impacts on jobs and businesses. In turn, demographic changes and migration trends have spurred studies of possible new constraints on future talent pools and skills capacities.

The following reviews some of the key trends and the implications for economic development and prosperity that underpin this plan's recommendations and short- and long-term actions.

Canada's growth opportunities

In its December 2017 final report, the federal Advisory Council on Economic Growth stressed that past growth is not likely to be sufficient to meet the needs of future growth in Canada. In the council's view, the status quo would not suffice – but a future of slower growth is not inevitable for Canada.

The report sets out three drivers of economic growth:

- the pace of technological change, which has accelerated rapidly, reshaping business and the world of work;
- the shift of global economic power from West to East; and
- the aging populations of major advanced and emerging economies.

The report acknowledges that these drivers will lead to both a wealth of new opportunities and markets for Canada, and numerous challenges for Canadians and Canadian businesses wishing to succeed.

Global risk and reward

The World Economic Forum's "Global Risk Report 2018" identifies a series of high-level global economic, social and policy risks that will have varying impacts on future prosperity, security and growth: inequality and unfairness, risks of conflict, and planet-level environmental distress.

The report lists major economic "storm clouds"—long-term vulnerabilities, such as finance and debt, the limits of cyber-defences, the lack of policy firepower, technical disruption, and politics and protectionism, for example—and analyzes their potential adverse economic impacts, and contains possible strategies for responding to them.

The report also notes that a number of technologies cut across a range of sectors, and emphasizes the challenges stemming from cyber-security in all sectors.

Technological disruptions

In a February 2018 article, "Solving the Productivity Puzzle: The Role of Demand and Promise of Digitization," McKinsey Global Institute identifies three waves of changes in labour productivity in the U.S. economy, with the third being digitization. While transforming operating and business models in all sectors, digitization can, according to the authors, address productivity growth—critical to increased prosperity—and promote and sustain productivity by its diffusion. This digitization diffusion will help drive existing and new competitors to perform better, in turn leading to greater product and service improvements and innovations.

Talent, competition and disruption

"Disruptive forces in the industrial sectors: Global executive survey" (McKinsey & Company, March 2018) highlights the results of a recent survey of 300 global executives in various industrial sectors.

There was wide recognition among respondents of massive advances in data generation, computing power and connectedness to drive both the scale and speed of disruptions for industrial and related firms. Respondents also noted the variety of new disruptive technologies—artificial intelligence, the Internet of Things, cyber-security, electrification in developing economies—that could create vast new market opportunities. However, these would be matched by challenges related to talent, continuous training, applicability of existing business models and the need to handle the speed and scale of such sometimes simultaneous disruptions.

Innovation and public policy

The latest Institute for Competitiveness and Prosperity Working Paper, “[The Final Leg: How Ontario can win the innovation race](#)” (April 2018), identifies a key gap in innovation capacity in Ontario. The paper focuses on commercialization, and the need to develop ways to significantly improve and deliver on private and public resources already dedicated to innovation. The Institute notes the unique importance of innovation—regardless of the scale of firms—to achieve sustained prosperity.

Building upon previous federal, provincial and private sector reports on this topic, the paper identifies opportunities to improve public policy and programming related to innovation activities, operations and institutions, so as to expand the benefits of new disruptions across all firms. In particular, the paper’s authors analyze new pilot projects being carried out in Ontario in conjunction with various institutes of the German Fraunhofer Society. These projects seek to link innovation policy, research and development investments, skills development and training, and new talent creation, to then successfully commercialize investments in research and development, and innovation in entrepreneurial firms, scale-ups and existing commercial operations.

These reports, as with many others, emphasize the scale, speed and intensity of new market and technology disruptions on investments, talent and existing marketplaces. Consequently, the agility of firms and public bodies to respond to these disruptions, while sustaining new public and private investments, and capacity to innovate, is at a premium.

Steering Committee input

- The City of Brampton can play a key leadership and facilitation role in workforce development.
- Incentives and business support loans should be available to new start-ups.
- The City must develop and implement a new brand that reflects the focus on key innovative sectors, culture and a sense of urban place.
- Brampton needs a collaborative space/incubator to nurture and develop new business opportunities.

Invited business and organization focus group input

- Brampton will be a world-class, tech-based smart city, education destination and innovation hub.
- It will be an established technology and advanced manufacturing hub.
- It will have a transformed brand: from bedroom community to the next metropolitan centre.
- It will have an established and prominent academic presence.
- Businesses will be proud to be here, while the lifestyle will attract and retain employees.
- Brampton will be a community that encourages work-life balance.
- It will be a business destination with sustainable office infrastructure and green space.

Research and analysis: Five key themes for growth

Following on the literature review presented in the previous chapter, City officials commissioned original research to ground recommendations for specific economic development initiatives for Brampton based on the experience of other, similar cities, and input from local stakeholders. This chapter reviews the results of this research, organized by the five key themes the City identified as being critical to achieving sustained economic growth, as follows.

Talent and workforce: Attracting, developing and retaining talent is paramount to any city's economic growth. The right workforce gives a city a competitive edge. Investment flows in. Existing businesses thrive. Residents are gainfully employed in their community. At the same time, investment into local talent stimulates collaboration and partnerships—with businesses and post-secondary institutions—and ample opportunities for innovation.

Investment: Public and private investments in public infrastructure, commercialization of new knowledge, green investments and education not only bring social and cultural benefits to cities but also foster a more sustainable, diverse and innovative local economy that offers opportunities for all citizens.

Innovation and technology: Innovation and entrepreneurship shape the future of a city and drive economic growth by spurring the creation and dissemination of new knowledge and technological breakthroughs. City governments play a crucial role in providing the local conditions in which entrepreneurship and innovation can thrive—fostering transformative job creation, technological development and productivity.

Employment lands: City leadership is proactive in managing the supply of available employment lands to promote commercial, and industrial development. Strategic initiatives and processes reduce encroachment into existing employment areas and preserve designated and future employment lands while fostering connections within the municipality and with neighbours. Brampton's work under this theme will require collaboration with the Government of Ontario, since it protects and manages employment lands through the *Planning Act* and various other Provincial plans.

Competitiveness: A city's competitiveness drives economic development, and stimulates wealth and prosperity for residents by facilitating business and industry growth. The City must develop and implement policies, initiatives and processes—particularly in the area of investment attraction—to help Brampton stand out in an increasingly challenging globalized environment.

Comparator cities

To choose the six comparator cities, City staff, the members of the Steering Committee and the consultant jointly developed selection criteria related to demographic, geographic, economic and liveability factors, as follows:

- cities with similar population size and growth to that of Brampton;
- cities that exhibit characteristics to which Brampton aspires; and
- cities that are highly regarded for their economic growth, technological impact and overall appeal.

Using these criteria, the following are the six comparator cities:

- Surrey, British Columbia;
- San Jose, California;
- Austin, Texas;
- Charlotte, North Carolina;
- Columbus, Ohio; and
- Oslo, Norway.

The following table provides basic data about Brampton and each of the six other cities. The full consultant's report (available on the City of Brampton website) contains more information on each jurisdiction.

	Population	Average Growth	Unemployment Rate (%)	Household Density (/km ²)	City Revenue (Million CAD)	City Expenses (Million CAD)
City Population (5-year, %)	Rate (%)	Income (CAD)	(/km ²)	(Million CAD)*	(Million CAD)	
Brampton ¹	593,638	13.3	8.3	98,855	2,229	734.0
Surrey ¹	517,887	10.6	6.5	93,586	1,637	698.8
San Jose ²	1,025,350	7.6	7.4	154,366	3,609	1,132.2
Austin ²	947,890	16.9	5.0	114,596	1,977	1,235.0
Charlotte ²	842,051	14.5	8.5	110,146	1,758	732.6
Columbus ²	860,090	9.0	6.9	80,879	2,461	1,080.2
Oslo ^{3,4}	658,390	9.9	4.7	128,639	1,544	8,391.5

Sources and Notes:

¹ Statistics Canada Census; City's Annual Report 2016 (used for City Revenue and Expenses). Note that the City of Surrey's large revenue surplus was used to finance capital asset acquisitions related to public infrastructure such as transportation, water, sewer and drainage.

² U.S. Census Bureau -Census; City's Annual Report 2016 (used for City Revenue and Expenses); Bank of Canada's Annual Average FX Rate, 2016 (USD/CAD at 1.3248).

³ Statistics Norway; Bank of Canada's Annual Average FX Rate, 2016 (NOK-CAD at 0.1578). High Income and wealth taxes constitute nearly 60% of the City Revenue. * Please refer to the Appendix for a breakdown of the cities' operating streams of revenue.

⁴ The Oslo revenues reflect very different revenue sources-largest percentage revenue sources are: income and wealth taxes, and state grants, with property taxes providing a very modest contribution to City revenues. In turn, the City expenses include salaries and wages for a large portion of Oslo workforce (exceeds 25%), payments for extensive social services, and payments for Municipal services including funding for private sector firms providing competitive/innovative solutions. The City as the National capital requires a level of state support, and the Municipal budget covers the City of Oslo and the surrounding region (source: E&Y analysis, May 2018).

To provide City officials with a comprehensive understanding of the various policies, programs, initiatives and partnerships in each of the comparator cities in relation to the five themes, the consultants conducted 16 on-site interviews between November 2017 and March 2018. In each case, the consultants spoke with key participants in economic development activities from the public, private and post-secondary education sectors, with the focus on concrete results achieved under each theme and within specific areas of focus (as noted in boxes, below). The interviewers also sought to identify what worked, what did not, what needed to change, and the processes the cities followed to successfully make those changes.

The interviews and subsequent analyses revealed a number of key characteristics that set the context for how these municipalities responded to the five themes in collaboration with their business communities and post-secondary institutions. Among these characteristics, the following are of importance:

- All six cities experienced or continue to experience high rates of population growth, often double-digit increases over one or more decades.
- All are experiencing internal demographic changes, and significant internal migration and immigration to sustain their population growth.
- As a result of high growth rates, all have had to adapt—not always as successfully as hoped—to challenges related to infrastructure, transit/regional connections (including airports), employment lands and housing prices.
- All six cities have large post-secondary institutions (university and college) within their municipal boundaries signalling by their scale, a longer term evolution of those institutions within those cities, and changing roles for those institutions with the municipalities and business communities.
- Each city had plans or had taken actions related to its downtown core. Moreover, almost all cities had programs or investments in place to further economic growth in selected neighbourhoods or major parts of the city beyond the downtown core.
- While all six have varied geography and histories (three are capital cities), all have diverse economic sectors, with significant initiatives to build and sustain growth and diversity in culture and the arts.

The following summarizes select key initiatives the cities undertook related to each of the five key themes, and some of the most significant gaps in Brampton's efforts to date, measured against the most common initiatives of the comparator cities.

Areas of focus

- **Focused partnerships:** Engagement in targeted partnerships with educational institutions and/or local businesses to develop cohesive industry programs aimed at talent attraction and retention.
- **Workforce expansion:** Programs/partnerships that promote employment opportunities and/or skill development for local workforce expansion.
- **Youth employment:** Programs promoting employment opportunities and/or skill development for youth.

Talent and workforce

Officials in the comparator cities recognize the importance of talent attraction, development and retention for future economic growth, having undertaken initiatives to develop a pipeline of talent to help meet local workforce demands and attract new businesses.

Key initiatives

- Establishing focused partnerships with post-secondary educational institutions and local businesses aimed at attracting and retaining workers.

The City of Surrey established a partnership with Simon Fraser University and Fraser Health to invest \$1 million over three years in Innovation Boulevard, which supports health technology companies through all stages of development.

Energy Production and Infrastructure College, a partnership between the University of North Carolina Charlotte and Duke Energy, ensures that the talent force and business demands align.

The City of Austin has a strong and lengthy partnership with the University of Texas Dell Medical Centre to attract talent and ensure that companies understand the capabilities of the local talent pool.

There is a strong partnership between Columbus Region's secondary and post-secondary institutions and local Honda assembly plants. For example, Honda and Marysville Early College High School introduce students to advanced manufacturing and STEM fields at a young age.

- Creating initiatives and partnerships that promote employment opportunities and skills development for workforce expansion in growing sectors.

Project P.I.E.C.E. identifies labour market shortages in key industries in Charlotte, and increases employment among those with multiple barriers to employment, such as youth, visible minorities and the financially underprivileged.

San Jose's Workforce Foundation provides intensive case management, training services, educational programs and supportive services to help youth secure employment.

How does Brampton compare?

- Brampton has engaged in fewer partnerships targeted at talent attraction and retention with the business and post-secondary educational sector than the other cities.
- Brampton has fewer youth employment initiatives than the other cities.

Areas of focus

- **Strategic sectors:** Key local sectors for investment based on already demonstrated capabilities and assets in the region and/or emerging opportunities for innovation based on local strengths of firms and their assets.
- **Transportation and urban development:** Strategic development plans for infrastructure expansion/maintenance and urban centre improvements.

Investment

Comparator cities facilitate public and private investment in infrastructure, housing, green space and education to help accelerate productivity, create jobs and bring a higher standard of living to residents.

Key initiatives

- Identifying strategic target sectors for public and private investments founded on demonstrated capabilities and asset strengths in the region as well as future innovation capabilities.

Common growth sectors include information and communications technology, life sciences, advanced manufacturing and clean technology.

- Creating strategic development plans for infrastructure design/expansion and urban centre improvements.

The City of Charlotte envisioned “centres” and “corridors” as focus areas for commercial development, and “wedges”—low-density residential areas—to accommodate the growing population. Public infrastructure, such as major roads and rapid transportation, connects the wedges to the centres and corridors.

- Investing in parks and recreational areas to improve quality of life for residents and attract new businesses.

The City of Columbus invested US\$40-million through a public-private partnership to transform the Scioto Mile from an aging, neglected civic resource into a vital network of public green spaces.

Oslo’s urban development vision, the Smart City Strategy, heavily prioritizes increased public greenery investments.

How does Brampton compare?

- Brampton needs to **re-engage with the Greater Toronto Airport Authority** to support the economic development opportunity the city’s proximity to the airport presents. A major multimodal transit centre serving the western GTA, currently at the concept stage, could provide Brampton with a comparative advantage for attracting global companies. None of the comparator cities disclosed information about similar engagements with their local airports.
- While having a large number of public parks, Brampton **lacks substantial public and private green infrastructure investments** that would, in turn, generate private investment, compared to the other cities. However, Riverwalk—including revitalizing downtown Etobicoke Creek and rehabilitating trails and pathways—is one of the six game changers under the current Strategic Plan and an important focus of the Brampton 2040 Vision.

Areas of focus

- **Focused partnerships:** Engagement in targeted partnerships with educational institutions and/or local businesses to develop initiatives aimed at supporting local entrepreneurship, innovation and technology commercialization.
- **Start-up financing:** Established programs or initiatives that help small businesses raise adequate financing (e.g. loans with longer amortization periods, flexible payments).
- **Public procurement:** Proactive stimulation of innovation via public procurement of innovative products and services (e.g. “smart city” products, energy efficiency).

Innovation and technology

Understanding that the generation of new knowledge and technology is a driving force for long-term economic growth. Comparator cities create and promote an environment in which entrepreneurs and innovation can thrive.

Key initiatives

- Establishing focused partnerships with post-secondary educational institutions and local businesses aimed at supporting entrepreneurship, innovation and technological commercialization.

Oslo’s StartupLab is a public-private research park that facilitates contacts between start-ups and clients, leading to more than 1,000 jobs created over three years.

Austin’s partnership with Dell Medical Centre supports medical commercialization.

Charlotte’s Innovation Park is a private development project with a 200-acre campus that houses 7,000 employees.

- Supporting small businesses and start-ups with financial programs that provide micro-financing at competitive rates (e.g. loans with longer amortization periods and flexible payment schedules).

Surrey relies heavily on provincial incentives but also seeks to enhance its existing business outreach program by providing one-stop access to government services.

The City of Columbus’s Economic Community Development Institute offers micro loans to businesses, while the incubator “10-Xelerator” is a mentorship-driven investment program.

How does Brampton compare?

- Brampton has fewer incubators and research labs to support entrepreneurship and innovation than the other cities.
- Brampton invests less money and resources to actively stimulate innovation when benchmarked with leaders in this field. The City of Oslo invests more than CAN\$4.2 billion every year in public procurements to develop “smart city” technologies. Brampton is currently participating in Canada’s Smart Cities Challenge, with a focus on innovation and technology, including opportunities for procurement innovations.

Areas of focus

- **Strategy:** Comprehensive strategy for employment lands to ensure a long-term job supply and, more generally, strategies for protecting and preserving employment lands (e.g. developing a comprehensive zoning by-law) for future industrial development in key sectors of City focus.
- **Investment attraction:** Provision of employment land investment incentives designed to encourage job creation and generate new investment in key sectors.
- **Place-making:** Community-based participation approach to the City's planning and design process for employment lands and investment attraction.

Employment lands

Comparator cities recognize the importance of promoting local economic growth and employment by managing available employment lands for development.

Key initiatives

- Developing a detailed employment lands strategy that protects and preserves employment lands to ensure a long-term job supply.

Surrey's Employment Land Strategy provides a formal set of development goals and creative solutions to protect employment land and generate employment growth, in the face of investment competition from the city's large urban neighbour, Vancouver.

- Undertaking strategic land-use planning and establishing special economic development zones to attract private investments and encourage job creation.

San Jose's Plan Bay Area 2040 aims to develop efficient transportation networks and more housing choices that can grow sustainably.

How does Brampton compare?

- Brampton has not always made the protection of employment lands a priority as the City has grown over time.
- Brampton provides fewer financial incentives compared to the comparator cities in the U.S. Columbus offers up to a 100-percent exemption on new property taxes for construction or improvement of new buildings in the downtown core, and up to 50 percent in income tax rebates for expanding businesses.*

*The Municipal Act in Ontario restricts the abilities of municipalities to provide the level of incentives available to U.S. cities.

Areas of focus

- **Vision and implementation plan:** Development of a clear long-term vision and plan to achieve goals and address current challenges.
- **Financial incentives:** Strategies to enhance business attraction and retention (e.g. special economic investment zones, community improvement plans and property tax abatements).
- **City brand strategy:** Development of a clear and concise brand strategy that promotes the region's core assets to the local population and a global audience.

Competitiveness

The comparator cities all strive to develop policies, strategies and institutions that help improve the competitiveness of their cities in order to drive economic development.

Key initiatives

- Develop an implementation plan for the Economic Development Master Plan that addresses future goals and how to meet current challenges.

Oslo's 2025 plan sets out how the city will work to be the world's most sustainable and innovative municipality.

- Providing financial incentives to stimulate business attraction and retention.

Austin offers tax credits and attractive rebates to prospective businesses in the areas of research and development, renewable energy adoption tax exemptions, and job creation rebates in eligible economic development zones, as well as property tax abatements and exemptions to encourage large-scale manufacturing.

- Developing a brand strategy to promote the city and region.

Oslo's brand management strategy focuses on sustainability (goal of achieving a rating of 0-0-0 on all environmental impacts) and highly qualified labour.

How does Brampton compare?

- Brampton has already started to **collaborate with local stakeholders to attract investments in competitive sectors**. Charlotte works extensively with stakeholders from the private sector, universities and cultural groups to promote development in the urban core.
- Brampton has **collaborated with neighbouring cities and regions** to leverage resources and business development activities (e.g. the Toronto Global partnership and the leading role that Brampton plays in the Advanced Manufacturing Supercluster).

A plan today for Brampton's tomorrow

The need is clear and compelling. To accommodate expected population growth and develop the economic base to support it, the City of Brampton must continue to build on its new approach to economic development to achieve concrete results:

- new and innovative global industries and firms setting up in the city;
- greater innovation in all sectors;
- greater overall business growth;
- more in-city jobs, including those for the growing numbers of newcomers to Canada and Brampton;
- an agile talent pool that can adapt to shifts in technology and other economic pressures;
- home-grown capacity for post-secondary training and retraining;
- augmented business retention and expansion investment, as well as an influx of new funds from outside the city; and
- a larger base of successful entrepreneurs and enhanced opportunities for entrepreneurship development.

The City cannot pursue economic development of this scale on its own. To accomplish its long-term economic development goals, the City, members of the local business community, and representatives of post-secondary institutions and other partners must come together to develop proactive and joint measures, and opportunities for collaboration.

The City must be open to having various partners lead economic development activities, depending upon the priority and on the strength of the partners.

These partnerships, many to be developed and nurtured over time, also need to be managed within the context of current operating budgets and resources, while at the same time focusing on key performance metrics such as jobs and investment.

The City's ongoing approach to economic development must make more effective use of both private and public investment in business growth, through direct investment into projects and activities, supportive trade, immigration and foreign direct investment policies, and training grants.

The way forward

This is a new vision and mission for economic growth in Brampton, built on short- and long-term actions for the City and its partners. It lays out three overarching goals in the areas of innovation, talent and competitiveness. Success in these areas will see Brampton achieve the level of superior growth and corresponding business and community capacity it needs to realize the desired future of the city and its citizens.

This plan aligns with the goals of the City's Strategic Plan, Brampton 2040 Vision and Culture Master Plan. In particular, the three overarching goals respond to needs associated with each of the five themes and the City's game-changer initiatives

The goals are grounded in the input of Brampton-based stakeholders and how they envision a vibrant, healthy city. The analysis of the six comparator cities informs the goals and proposed actions by underlining the challenges, successes and growth trends they face, and the similarities and differences to Brampton. This analysis also emphasizes the importance of City investment and the necessity of making links between the City, businesses and partners to foster agile collaboration to meet the imperatives of sustainable growth.

Vision

Brampton is a global leader in innovation, talent, jobs and investment.

Mission

- To create a business community and business climate in Brampton that supports the creation of more than 140,000 net new local jobs over the next 20 years, with at least 60% of residents working within the community.
- To develop and support vibrant business, education and innovation ecosystems that generate new investment, new businesses and entrepreneurs.
- To develop a City that is transformed and provides a living mosaic of business, culture and diversity to its citizens.

1

Innovation

Goal: Drive strategies that ignite opportunities to transform Brampton into a nationally recognized destination for innovation that enhances entrepreneurship, attracts new domestic and foreign investments, and sparks the creation of new businesses, products and services.

Short-term actions

- Build momentum in the innovation ecosystem across all sectors including Entrepreneurship, Health and Life Sciences, Innovation and Technology, Advanced Manufacturing, Clean Tech and Logistics.
- Launch a City-led incubator and co-working space to enhance entrepreneurship, attract new investment, spark innovation and create new businesses. Start-ups will have access to programming, mentorship, networking and resources that are fundamental to growing a business in a technology-driven marketplace.
- Build strong relationships with the Brampton business community to maximize the innovation benefits of the new Ryerson-Sheridan campus and other post-secondary institutions to build competitiveness and innovation.
- Partner with the Brampton business community to secure additional funding for the Advanced Manufacturing Supercluster to achieve heightened innovation and attraction of talent and global business.
- Evaluate and assess the support services available for technology entrepreneurs in Brampton to identify gaps (e.g., campus linked accelerator) and determine how post-secondary institutions (e.g., Ryerson, Sheridan) and the Ontario Network of Entrepreneurs partners can provide needed services.

Long-term actions

- Build an innovation team within the economic development office, and in partnership with Ryerson and Sheridan, to foster a culture of innovation within the city. Directly connected to Brampton's 2040 Vision, this team will champion the creation of a City Innovation office.
- Work with strategic partners in building a platform to encourage the piloting of new technologies within Brampton.
- Leverage new and existing partnerships to successfully transition the pilot incubation and co-working space into a leading innovation hub for technology businesses.

2

Talent

Goal: Establish Brampton as a national leader for attracting, developing and retaining new jobs and talent for the workplaces of tomorrow.

Short-term actions

- Build on new and existing business partnerships that support talent development initiatives across all sectors (Health and Life Sciences, Innovation and Technology, Advanced Manufacturing, Clean Tech, Logistics and Creative Industries) for youth, newcomers and entrepreneurs.
- Create a Business Talent Task Force, working with representatives from secondary schools, non-profit organizations, businesses and post-secondary institutions to implement talent development/retention action plans. Engagement with youth and newcomers will be the priority.
- Work with the Culture team to build a culturally vibrant community and a strong sense of place in Brampton. Elevating the quality of life is key to attract and retain the brightest and best talent to Brampton. This initiative will support the Culture MasterPlan and Brampton's 2040 Vision that in 2040, Brampton will support a mosaic of artistic expression and production.
- Continue to build and work on the Advanced Manufacturing Supercluster Initiative, implementing a talent development proposal targeting company management and staff. The proposal will also include a plan to attract the next generation of manufacturing workers.
- Launch an online business networking and mentoring platform to give Brampton youth and newcomers opportunities to build new business relationships and to foster inclusion.

Long-term actions

- Collaborate with Brampton's post-secondary institutions to create, facilitate and lead opportunities for new experiential learning and talent development across all sectors.
- Partner with the business community, post-secondary institutions and federal and provincial governments to establish programs to attract foreign talent and skills to meet the unique needs of Brampton businesses, non-profit organizations and entrepreneurs.
- Implement a Business Talent Task Force to develop retraining and reskilling talent programs to meet changing business and technology needs across all sectors.

3

Competitiveness and Investment

Goal: Build and sustain a globally distinct and competitive urban City of Brampton

Short-term actions

- Develop and implement an Investment Attraction Strategy, grounded in Brampton’s 2040 Vision and focused on select global markets.
- Create a Jobs and Investment Group with business leaders from within and outside Brampton, entrepreneurs, post-secondary institutions and other influencers to implement new approaches to drive job growth, innovation and investment across Brampton.
- Initiate immediate outreach to the Greater Toronto Airport Authority to focus on job and investment creation for the transportation and logistics sector and related industries. Brampton needs to be a significant partner as the airport becomes a top-tier global hub.
- Develop City policies and programs using financial and non-financial incentives to achieve job and investment growth in high priority sectors and areas.
- Continue to work with transit to ensure strong connections to business needs, for both job growth within and for business attraction.
- Working with Osler Health System, Central West Local Health Integration Network, health and life sciences companies, and MaRs, Brampton will lead an action plan to build, market and grow the “Medical Zone” in the downtown / central area of the City. This will create an ecosystem of health-related companies, health professionals supporting the hospitals (both the new Peel Memorial Centre, as well as the new third hospital) and related laboratories in Brampton.
- Continue to provide expedited, one-on-one services to guide developers and investors through the development process to facilitate jobs and investment.
- Work in partnership with the Culture team to champion the development of the Creative Economy, driving the success of the Culture Master Plan. A culturally vibrant community is critical in attracting knowledge workers and companies to Brampton.
- Strengthen arts and culture in Brampton by facilitating connections to the business community, developing opportunities for investment and support of culture.

Long-term actions

- Build on new and existing collaborations and investments to implement the Brampton 2040 Vision;
 - For the downtown to become a hub for culture, diversity, education and innovation, and health and life sciences;
 - Invest in a global design process and competition for the Uptown area to bring international awareness and attract investment; and
 - Work with a cross-departmental team and key business partners to develop and implement plans, products, marketing and sales activities for the proposed Uptown Centre and Bramalea redevelopment.
- Support the creation of a city-wide branding initiative, incorporating arts and culture, to complement the Investment Attraction Strategy.
- Implement a comprehensive strategy to successfully realize higher value uses and investments in Brampton's employment lands.
- Build on work with the Greater Toronto Airport Authority, and with other municipal partners to develop East Brampton into a new global innovation and investment cluster for transportation and logistics sectors.
- Create a position in Economic Development that drives and supports business growth in the creative industries.
- Work with Culture team to develop an arts and entertainment business investment strategy to attract, enhance, and retain creative cultural assets to support a culturally vibrant, tourism-friendly community.

Next steps

- Develop robust and relevant performance metrics measuring job creation, new business development, investment, and innovation and entrepreneurship.
- Prepare proposals for discussion with Council on how best to respond to any significant changes in economic and business conditions (positive or negative), including adjusting the performance metrics, as required.
- Define the role of key stakeholders and partners in various proposed collaboration initiatives.
- Develop and implement a communications plan.

The Economic Development and Culture Department will spearhead regular outreach by the City, business leaders or associations, post-secondary institutions and Council to the comparator cities. These outreach initiatives will monitor economic development activities, challenges and successes, expanding mutual learning opportunities and capitalizing on best practices for improving sustained economic growth over the next two decades.

The aspirational goals set out in this plan are based on solid analysis and feedback from key stakeholders. They build on the City's sector-focused, streamlined approach to delivering economic development services in support of Council's direction on generating jobs and investment in key sectors.

This Economic Development Master Plan recommends measurable and reportable actions and investments, delivered in the context of assigned budgets and resources. Ultimately, it can deliver new local jobs and economic growth, spur innovation and entrepreneurship, and provide a living mosaic of business, culture and diversity for Brampton citizens.

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**Appendix B:
Analysis for
Economic
Development
Master Plan:
Final
consultant's
report**

The bibliography that follows is divided into two sections: The first section contains sources of information reported in the Final Report to the City of Brampton as it relates to the comparator cities' key initiatives on the five key themes – *Talent/Workforce*, *Investment*, *Innovation and Technology*, *Employment Land*, and *Competitiveness*. The second section contains sources of information as it relates to the comparator cities' initiatives on the six Game Changers – *Regional Connections*, *Urban Centre*, *University*, *Health Partnerships*, *Planning Vision*, and *Riverwalk*. The sources comprise of information obtained by on-site stakeholder interviews for each comparator city as well as publicly available sources to verify and detail the information obtained from these interview discussions.

Initiatives on Key Themes

Surrey

Talent/Workforce

- [1] *The Innovation Boulevard*: Based on interview discussions with members of the city's Economic Development group and Simon Fraser University as well as publicly available sources, e.g. City of Surrey's 2016 Annual Report (URL: https://www.surrey.ca/files/Annual_Report_2016_Web.pdf) and the Innovation Boulevard's webpage (URL: <http://www.innovationboulevard.ca/>).
- [2] *International Cities of Refuge Network*: Based on interview discussions with members of the Kwantlen Polytechnic University and publicly available sources, e.g. International Cities of Refuge Network webpage (URL: <https://www.icorn.org/about-icorn>).

Investment

- [3] *Sector Focus*: Based on interview discussions with members of the city's Economic Development group.
- [4] *Transportation Development*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. the city of Surrey's 2016 Annual Report (URL: https://www.surrey.ca/files/Annual_Report_2016_Web.pdf) and Summary Reports from Vancouver's regional transportation authority, TransLink.

Innovation and Technology

- [5] *The Innovation Boulevard*: See reference [1]
- [6] *Clean Energy Hub*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Surrey's Clean Energy Sector Profile Report (URL: <http://www.surrey.ca/files/10434CleanEnergySectorProfileLOWRES.pdf>).
- [7] *Start-up financing*: Based on interview discussions with members of the city's Economic Development group.

Employment Land

- [8] *Employment Land Strategy*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. the report Employment Lands Strategy Surrey, British Columbia (URL: https://www.surrey.ca/files/Employment_Lands.pdf).

Competitiveness

- [9] *Vision*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. The City of Surrey Economic Strategy 2017-2027 (URL: <http://www.surrey.ca/files/SurreyEconomicStrategy.pdf>) and the City Centre Development Plan (URL: <http://www.surrey.ca/files/CityCentreBrochure.pdf>).

[10] *Financial Incentives*: Based on interview discussions with members of the city’s Economic Development group and publicly available sources, e.g. The City of Surrey Investment Opportunities (URL: http://www.surrey.ca/files/Surrey_Investment_Opportunities.pdf).

San Jose

Talent/Workforce

[11] *Focused Partnerships*: Based on interview discussions with members of the city’s Director Office and Economic Development group as well as publicly available sources, e.g. Silicon Valley Talent Partnership’ webpage (URL: <http://svtpca.org>) and partnership announcements such “Feeding Silicon Valley” (URL: <http://www.sanjoseca.gov/DocumentCenter/View/68314>) and “Rafiki” (URL: <http://www.sanjoseca.gov/documentcenter/view/62642>).

[12] *Initiatives on Workforce Expansion*: Based on interview discussions with members of the city’s Director Office and Economic Development group as well as publicly available sources, e.g. Work2future’s webpage (URL: <http://www.work2future.biz/>) and the Workforce Innovation and Opportunity Act San José Silicon Valley Workforce Investment Network Local Plan Program Years 2017-2020 (URL: https://cwdb.ca.gov/wp-content/uploads/sites/43/2017/04/work2future-Exec-Summary_Local_Plan.pdf).

Investment

[13] *Sector Focus*: Based on interview discussions with members of the city’s Director Office and Economic Development group.

[14] *Transportation Development*: Based on interview discussions with members of the city’s Director Office and Economic Development group as well as publicly available sources, e.g. The City of San Jose 2017 Annual Report (URL: <http://www.sanjoseca.gov/DocumentCenter/View/72245>).

Innovation and Technology

[15] *Office of Civic Innovation*: Based on interview discussions with members of the city’s Director Office and Economic Development group as well as publicly available sources, e.g. The City of San Jose Office of Civic Innovation webpage (URL: <http://www.sanjoseca.gov/index.aspx?NID=5188>).

[16] *Business Incubator Programs*: Based on interview discussions with members of the city’s Director Office and Economic Development group as well as publicly available sources, e.g. The City of San Jose Business Incubator Program webpage (URL: <https://www.sanjoseca.gov/index.aspx?nid=874>).

Employment Land

[17] *Employment Land Strategy*: Based on interview discussions with members of the city’s Economic Development group and publicly available sources, e.g. Envision San Jose 2040 (URL: <http://www.sanjoseca.gov/DocumentCenter/Home/View/474>), San Jose Market Overview and Employment Lands Analysis (URL: <https://www.sanjoseca.gov/DocumentCenter/View/53472>), History of Employment Land Conversions in San José and the Fiscal Impact of Land Use (URL: <http://www.sanjoseca.gov/DocumentCenter/View/43609>), and Framework for Preservation of Employment Land (URL: <https://www.sanjoseca.gov/DocumentCenter/Home/View/414>).

[18] *Plan Bay Area 2040*: Based on interview discussions with members of the city’s Director Office and Economic Development group as well as publicly available sources, e.g. City of San Jose Priority Development Areas (URL: <http://www.sanjoseca.gov/index.aspx?NID=2041>) and Plan Bay Area 2040’s webpage (URL: <https://www.planbayarea.org/>).

[19] *Place-Making / Easy Urbanism*: Based on interview discussions with members of the Economic Development group as well as publicly available sources, e.g. The City of San Jose Planning Division's partnership on design approaches such as "Using Art to Engage" and "Sidewalk Café" (URL: <http://www.sanjoseca.gov/index.aspx?NID=5279>).

Competitiveness

[20] *Vision*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. Envision San Jose 2040 (URL: <http://www.sanjoseca.gov/DocumentCenter/Home/View/474>).

[21] *Financial Incentives*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of San Jose Economic Development webpage (URL: <http://www.sanjoseca.gov/index.aspx?NID=870>).

[22] *City Brand*: Based on interview discussions with members of the city's Economic Development group.

Austin

Talent/Workforce

[23] *Focused Partnerships*: Based on interview discussions with members of the city's Economic Development group and University of Texas as well as publicly available sources, e.g. City of Austin 2017 Comprehensive Annual Financial Report (URL: <https://assets.austintexas.gov/financeonline/downloads/cafr/cafr2017.pdf>).

[24] *Initiatives on workforce expansion*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. Imagine Austin Year 5 Progress Report (URL: <http://www.austintexas.gov/imaagineaustin/progressreport>) and City of Austin's Human Resources Department webpage (URL: <http://www.austintexas.gov/department/workforce-solutions-capital-area-north>)

Investment

[25] *Sector Focus*: Based on interview discussions with members of the city's Economic Development group.

[26] *Transportation Development*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Austin 2017 Comprehensive Annual Financial Report (URL: <https://assets.austintexas.gov/financeonline/downloads/cafr/cafr2017.pdf>).

[27] *Invest in Austin*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Austin's Economic Development Department webpage (URL: <http://www.austintexas.gov/investinaustin>).

Innovation and Technology

[28] *Innovation Office*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Austin's Economic Development Department 2016 Strategic Economic Plan (URL: https://austintexas.gov/sites/default/files/files/EGRSO/EDD_Strategic_Economic_Plan_2016_No_Ap_pendix.pdf) and the Innovation Office webpage (URL: <http://www.austintexas.gov/department/innovation-office-programs>).

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- [29] *Small Business Division*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Austin's Small Business Division webpage (URL: <https://austintexas.gov/department/small-business-program>).
- [30] *Incubators*: Based on interview discussions with members of the city's Economic Development group and University of Texas as well as publicly available sources, e.g. City of Austin's Economic Development Department 2016 Strategic Economic Plan (URL: https://austintexas.gov/sites/default/files/files/EGRSO/EDD_Strategic_Economic_Plan_2016_No_Appendix.pdf) and Austin Technology Incubator's webpage (URL: <https://ati.utexas.edu/>).
- [31] *Innovation at University of Texas' Dell Medical School*: Based on interview discussions with members of the city's Economic Development group and University of Texas as well as publicly available sources, e.g. Dell Medical School's Health Product Innovation webpage (URL: <https://dellmed.utexas.edu/health-product-innovation>).

Employment Land

- [32] *Employment Land Strategy and Challenges*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Austin's Planning and Zoning Division webpage (URL: <http://www.austintexas.gov/department/planning-and-zoning>)

Competitiveness

- [33] *Vision*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. (URL: <http://www.austintexas.gov/department/imagine-austin>)
- [34] *Financial Incentives*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Austin's Global Business Expansion Division webpage (URL: <http://austintexas.gov/department/economic-development-division>).
- [35] *Brand Strategy*: Based on interview discussions with members of the city's Economic Development group.

Charlotte

Talent/Workforce

- [36] *Focused Partnership*: Based on interview discussions with members of the city's Economic Development group and University of North Carolina as well as publicly available sources, e.g. University of North Carolina's Energy Production & Infrastructure Center webpage (URL: <https://epic.uncc.edu/about/overview>).
- [37] *Initiatives on Workforce Expansion*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Charlotte's Economic Development Department webpage (URL: <http://charlottenc.gov/ED/Workforce/Pages/default.aspx>).

Investment

- [38] *Sector Focus*: Based on interview discussions with members of the city's Economic Development group.
- [39] *Strategic Urban Planning*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Charlotte's Planning Division webpage (URL: <http://charlottenc.gov/planning/AreaPlanning/CentersCorridorsWedges/Pages/Home.aspx>)

Innovation and Technology

[40] *Applied Innovation Corridor*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. a draft report of Charlotte Center City 2020 Vision Plan (URL:

<https://www.mecknc.gov/OpenMecklenburg/Documents/CenterCityVision2020.pdf>).

[41] *Innovation Park*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. Innovation Park webpage (URL:

<https://innovationparknc.com/>)

Employment Land

[42] *Employment Land Strategy*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Charlotte Compressive Annual Financial Report (URL: http://charlottenc.gov/mfs/finance/publications/FY17_CAFR.pdf) and the city's Transit Planning webpage (URL: <http://charlottenc.gov/cats/transit-planning/Pages/land-use.aspx>).

Competitiveness

[43] *Vision*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. a draft report of Charlotte Center City 2020 Vision Plan (URL: <https://www.mecknc.gov/OpenMecklenburg/Documents/CenterCityVision2020.pdf>).

[44] *Financial Incentives*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. Charlotte Chamber Economic Development Incentives Summary (URL:

https://charlottechamber.com/clientuploads/Economic_pdfs/charlotte_incentives.pdf).

[45] *Focused Partnerships*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. Charlotte Center City Partners webpage (URL: <https://www.charlottecentercity.org/>) and Charlotte Regional Partnership webpage (URL: <https://www.charlotteusa.com/>).

[46] *City Brand*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. Charlotte Regional Visitors Authority webpage (URL: <http://www.crva.com/>).

Columbus

Talent/Workforce

[47] *Focused Partnership*: Based on interview discussions with members of the city's Economic Development group, Columbus 2020 and Ohio State University as well as publicly available sources, e.g. Columbus 2020 (URL: <http://columbusregion.com/columbus-2020/>), SciTech partnership's webpage (URL: <http://www.stcc.org/>) and The Ohio State University's Corporate Engagement Office webpage (URL: <https://www.osu.edu/initiatives/corporate-engagement/>).

[48] *Initiatives on Workforce Expansion*: Based on interview discussions with members of the city's Economic Development group and Columbus 2020 as well as publicly available sources, e.g. Government of Ohio's Office of Workforce Development webpage (URL: <http://jfs.ohio.gov/owd/index.stm>) and Somali Community Association of Ohio (URL: <http://www.somaliohio.org/>).

[49] *Automotive Manufacturing*: Based on publicly available sources, e.g. The Columbus Region's Automotive Manufacturing Industry Spotlight (URL: <http://columbusregion.com/industries/automotive/>).

Investment

[50] *Sector Focus*: Based on interview discussions with members of the city's Economic Development group.

[51] *Transportation Development*: Based on interview discussions with members of the city's Economic Development group and Columbus 2020 as well as publicly available sources, e.g. City of Columbus Economic Development webpage (URL: <https://www.columbus.gov/development/economic-development/infrastructure-improvement/>) City of Columbus Urban Infrastructure Recovery Fund webpage (URL: <https://www.columbus.gov/planning/uirf/>)

[52] *Urban Development*: Based on interview discussions with members of the city's Economic Development group and Columbus 2020 as well as publicly available sources, e.g. Columbus Recreation and Parks Department's Scioto Mile webpage (URL: <http://www.sciotomile.com/>).

Innovation and Technology

[53] *U.S. Smart City Challenge*: Based on interview discussions with members of the city's Economic Development group and Columbus 2020 as well as publicly available sources, e.g. U.S. Department of Transportation webpage (URL: <https://cms.dot.gov/smartcity/winner>) and City of Columbus Smart Columbus webpage (URL: <https://www.columbus.gov/smartcolumbus/>).

[54] *Start-up Financing*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Columbus Economic Development Department's Small Business Services (URL: <https://www.columbus.gov/development/economic-development/Small-Business/>) and The 10Xelerator webpage (URL: <http://10xelerator.com/accelerator/>).

Employment Land

[55] *Employment Land Strategy*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Columbus Department of Development webpage (URL: <https://www.columbus.gov/Development/>).

Competitiveness

[56] *Vision*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. Columbus Downtown Development Corporation webpage (URL: <http://www.columbusddc.com/>)

[57] *Financial Incentives*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Columbus Economic Development Department's Downtown Business Incentives (URL: <https://www.columbus.gov/development/economic-development/Downtown-Business-Incentives/>).

[58] *Columbus 2020 Global trade and investment plan*: <http://columbusregion.com/news-events/press-releases/columbus-2020-unveils-global-trade-and-investment-plan/>

Oslo

Talent/Workforce

- [59] *Focused Partnerships*: Based on interview discussions with members of the city's Economic Development group, University of Oslo, and BI Norwegian Business School as well as publicly available sources, e.g. University of Oslo's "UiOs samarbeid med Oslo kommune – status, målsetninger og prioriteringer" Report [English translation: "University of Oslo's partnership with the city of Oslo – Status, objectives and priorities"] (URL: <https://www.uio.no/om/organisasjon/styret/moter/2017/3/o-sak-5-uio-samarbeid-med-oslo-kommune---status-malsetninger-og-prioriteringer.pdf>).
- [60] *Initiatives on Workforce Expansion*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. "Arbeids- og velferdsforvaltningen" [English translation: "Job and Welfare Department"] (URL: <https://www.nav.no/>).

Investment

- [61] *Sector Focus*: Based on interview discussions with members of the city's Economic Development group.
- [62] *Transportation Development*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. "National Transport Plan 2018-2019" English Summary (URL: https://www.ntp.dep.no/English/_attachment/1525049/binary/1132766?ts=1571e02a3c0) and "Regional plan for areal og transport i Oslo og Akershus" [in Norwegian] (URL: <http://www.akershus.no/file/01909d1ab7bf83209749f91e8e2f9e4f/Regional%20plan%20for%20areal%20og%20transport%20i%20Oslo%20og%20Akershus>).
- [63] *Urban Development*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. City of Oslo's "Planstrategi for Oslo 2016-2019" [English translation: "Strategic Plan for Oslo 2016-2019", document in Norwegian](URL: <https://www.oslo.kommune.no/getfile.php/13177938/Innhold/Politikk%20og%20administrasjon/PolitikKommuneplan/Planstrategi%20vedtatt%20bystyret%20141216-web.pdf>)

Innovation and Technology

- [64] *Incubators and Innovation Hubs*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. StartupLab webpage (URL: <http://startuplab.no/>), Norway Health Tech webpage (URL: <http://www.norwayhealthtech.com/>), Oslo Cancer Research Center webpage (URL: <https://www.ous-research.no/institute/>), MESH webpage (URL: <http://www.meshnorway.com/>), Tøyen Startup Village (URL: <http://www.toyenstartupvillage.no/>).
- [65] *Public Procurements*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. Oslo Smart City webpage (URL: <https://www.oslo.kommune.no/english/politics-and-administration/smart-oslo/>) and Oslo Smart City Accelerator webpage (URL: <http://smartosloaccelerator.no/>).
- [66] *Regional Plan for Innovation*: See document via webpage <http://www.akershus.no/ansvarsomrader/neringsutvikling/neringsutvikling/regional-plan-for-innovasjon-og-nyskaping/>. Direct link to the publication [in Norwegian] <https://www.google.ca/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwi6speBrPHZA>

[hWInlMKHZniDqsQFggzMAE&url=http%3A%2F%2Fwww.akershus.no%2Ffile%2F0295cf6232c398c4d3c477248c991e31%2FH%25C3%25B8ringsforslag%2520Regional%2520plan%2520for%2520innovasj on%2520og%2520nyskapning%2520web%2F&usq=AOvVaw2Ei6SdexKFIRf_bQ2iH0H3](http://www.akershus.no/file/F0295cf6232c398c4d3c477248c991e31%2FH%25C3%25B8ringsforslag%2520Regional%2520plan%2520for%2520innovasj on%2520og%2520nyskapning%2520web%2F&usq=AOvVaw2Ei6SdexKFIRf_bQ2iH0H3).

Employment Land

[67] *Employment Land Strategy*: Based on interview discussions with members of the city’s Economic Development group and publicly available sources, e.g. City of Oslo’s “Planstrategi for Oslo 2016-2019” [English translation: “Strategic Plan for Oslo 2016-2019”, document in Norwegian](URL: <https://www.oslo.kommune.no/getfile.php/13177938/Innhold/Politikk%20og%20administrasjon/Politikk/Kommuneplan/Planstrategi%20vedtatt%20bystyret%20141216-web.pdf>)

Competitiveness

[68] *Vision*: Based on interview discussions with members of the city’s Economic Development group and publicly available sources, e.g. City of Oslo’s “Planstrategi for Oslo 2016-2019” [English translation: “Strategic Plan for Oslo 2016-2019”, document in Norwegian](URL: <https://www.oslo.kommune.no/getfile.php/13177938/Innhold/Politikk%20og%20administrasjon/Politikk/Kommuneplan/Planstrategi%20vedtatt%20bystyret%20141216-web.pdf>)

[69] *Financial Incentives*: Based on interview discussions with members of the city’s Economic Development group and publicly available sources, e.g. EY’s Worldwide R&D incentives reference guide (URL: [http://www.ey.com/Publication/vwLUAssets/EY-worldwide-randd-incentives-reference-guide/\\$FILE/EY-worldwide-randd-incentives-reference-guide.pdf](http://www.ey.com/Publication/vwLUAssets/EY-worldwide-randd-incentives-reference-guide/$FILE/EY-worldwide-randd-incentives-reference-guide.pdf)).

[70] *Brand Strategy*: Based on interview discussions with members of the city’s Economic Development group and publicly available sources, e.g. The Oslo Region Brand Management Strategy (URL: <http://www.oslobusinessregion.no/the-oslo-region-brand-management-strategy-2/>).

Initiatives on Game Changers

Regional Connections

[71] *Surrey*: See reference [4].

[72] *San Jose*: See reference [14].

[73] *Austin*: See reference [26].

[74] *Charlotte*: See reference [39].

[75] *Columbus*: See reference [51].

[76] *Oslo*: See reference [62].

Urban Centre

[77] *Surrey*: Based on interview discussions with members of the city’s Economic Development group and publicly available sources, e.g. Surrey City Centre Plan (URL: <http://www.surrey.ca/files/City%20Centre%20Plan%20without%20Appendices.pdf>) and Surrey Planning and Development webpage (URL: <http://www.surrey.ca/city-government/645.aspx>).

[78] *San Jose*: Based on interview discussions with members of the city’s Economic Development group and publicly available sources, e.g. Envision San Jose 2040 (URL: <http://www.sanjoseca.gov/DocumentCenter/Home/View/474>).

[79] *Austin*: Based on interview discussions with members of the city’s Economic Development group and publicly available sources, e.g. Imagine Austin Year 5 Progress Report (URL: <http://www.austintexas.gov/imagineaustin/progressreport>)

[80] *Charlotte*: See reference [39].

[81] *Columbus*: Based on interview discussions with members of the city's Economic Development group and reference [52] above as well as publicly available sources, e.g. Columbus Commons webpage (URL: <http://www.columbuscommons.org/>).

[82] See reference [63].

Universities

[83] *Surrey*: Based on interview discussions with members of the city's Economic Development group and Simon Fraser University.

[84] *San Jose*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. CommUniverCity webpage (URL: <http://cucsj.org/>).

[85] *Austin*: Based on interview discussions with members of the city's Economic Development group and University of Texas.

[86] *Charlotte*: Based on interview discussions with members of the city's Economic Development group and University of North Carolina Charlotte. See also reference [36].

[87] *Columbus*: Based on interview discussions with members of the city's Economic Development group and Ohio State University. See also references within reference [47].

[88] *Oslo*: Based on interview discussions with members of the city's Economic Development group, University of Oslo and BI Norwegian Business School. See also reference [59].

Health Partnerships

[89] *Surrey*: See reference [1].

[90] *San Jose*: Based on interview discussions with members of the city's Economic Development group.

[91] *Austin*: Based on interview discussions with members of the city's Economic Development group and University of Texas as well as publicly available sources, e.g. Dell Medical School's Health Product Innovation webpage (URL: <https://dellmed.utexas.edu/health-product-innovation>) and (URL: <https://www.seton.net/>)

[92] *Charlotte*: Based on interview discussions with members of the city's Economic Development group

[93] *Columbus*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. CelebrateOne Administration webpage (URL: <http://celebrateone.info/>).

[94] *Oslo*: Based on interview discussions with members of the city's Economic Development group and publicly available sources, e.g. Norway Health Tech webpage (URL: <http://www.norwayhealthtech.com/>).

Planning Vision

[95] *Surrey*: See reference [9].

[96] *San Jose*: See reference [20].

[97] *Austin*: See reference [33].

[98] *Charlotte*: See reference [43].

[99] *Columbus*: See reference [56].

[100] *Oslo*: See reference [68].

Riverwalk

- [101] *Surrey*: Based on City of Surrey's Parks Recreation & Culture Strategic Plan webpage (URL: <http://www.surrey.ca/culture-recreation/3096.aspx>).
- [102] *San Jose*: Based on the City of San Jose Parks, Recreation Facilities & Trails Department's Greenprint Vision (URL: <http://www.sanjoseca.gov/index.aspx?NID=560>).
- [103] *Austin*: Based on City of Austin's partnership with Waller Creek Conservatory on revitalizing the Waller Creek. See documentation from Waller Creek Conservatory webpage (URL: <https://www.wallercreek.org/>).
- [104] *Charlotte*: Based on Mecklenburg County Park and Recreation Comprehensive 10-year Master Plan (URL: <https://www.mecknc.gov/ParkandRec/Parks/ParkPlanning/Documents/Master%20Plan%202014/Mecklenburg%20County,%20NC%20PR%20Master%20Plan%20Update%20FINAL.pdf>).
- [105] *Columbus*: See reference [52].
- [106] *Oslo*: Based publicly available sources on the City of Oslo's "Havnepromonaden" (URL: <https://www.oslo.kommune.no/politikk-og-administrasjon/slik-bygger-vi-oslo/fjordbyen/havnepromenaden/#gref>).