

A photograph of the Montreal Biosphère, a large geodesic dome structure made of glass and steel, situated on a wooden boardwalk. In front of the dome, there are several black rectangular kiosks displaying images of nature. A Canadian flag flies from a pole on top of the dome. The sky is clear and blue.

OUR URBAN FUTURES MONTRÉAL SCENARIO SET





Contents

- 3 The Narratives**
- 4 The Process**
- 5 A Corporate Community**
- 10 Alone In This Together**
- 15 #UN@YMQ**
- 20 A.I.N'T It Swell?**

The Narratives

The following scenarios were developed using Dator's Generic Images of the Future framework. This deductive scenario development method classifies social change into four different narratives. These narratives provide a structure for the development of contrasting scenarios.

- **Continuation and growth scenario** (business as usual, more of the status quo growth)
- **Decline and collapse** (system degradation or failure modes as crisis emerges)
- **Limits and discipline** (behaviours to adapt to growing internal or environmental limits)
- **Transformation** (new technology, business, or social factors that change the game)

The Narrative Breakdown

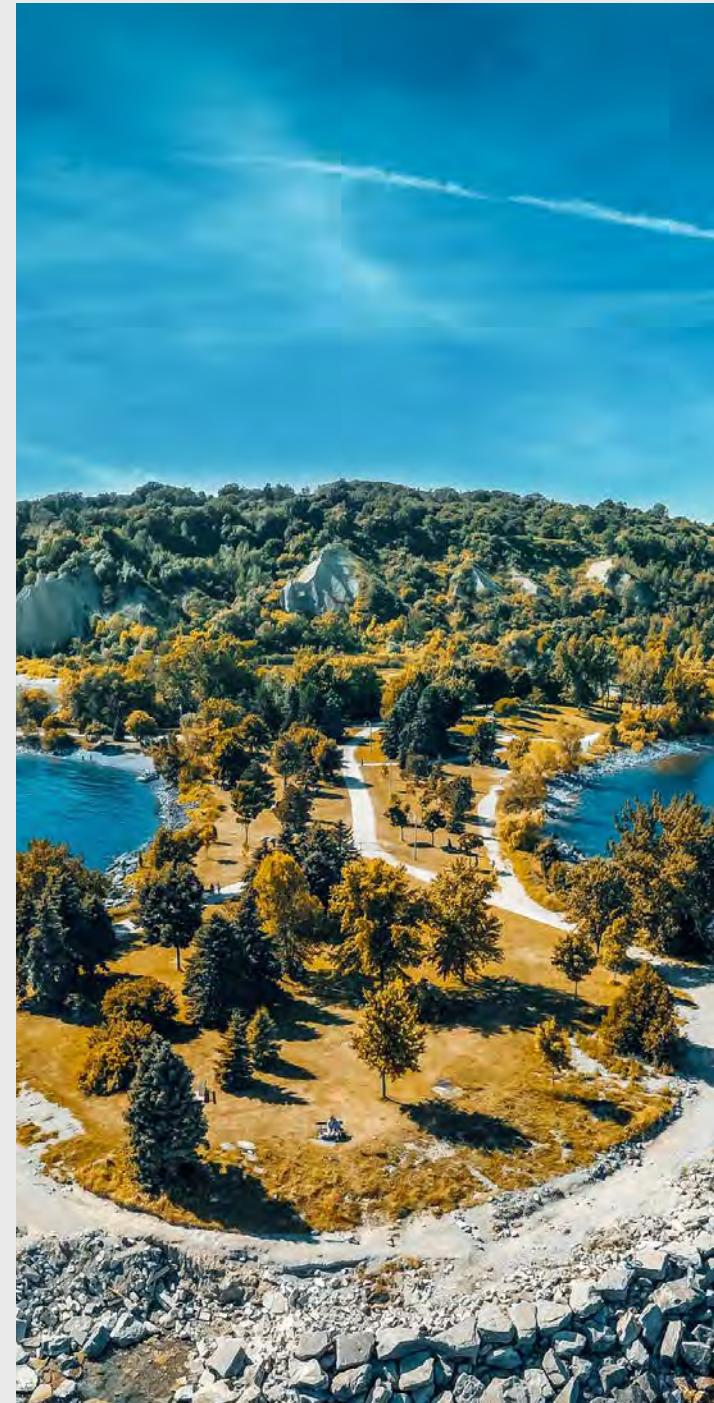
Forces	Futures			
	Continue	Collapse	Discipline	Transform
Population	Growing	Declining	Diminished	Post-human
Energy	Sufficient	Scarce	Limited	Abundant
Economics	Dominant	Survival	Regulated	Trivial
Environment	Conquered	Overshot	Sustainable	Artificial
Culture	Dynamic	Stable	Focused	Complex
Technology	Accelerating	Stable	Restricted	Transformative
Governance	Corporate	Local	Strict	Direct

The Process

The following scenarios were developed with the input captured in a virtual workshop on February 18, 2021, with an expert group with representatives from the Montréal municipal government, architectural firms, academia, and community organizations. We've also collected input from experts through this *questionnaire*. The contents of the scenarios are informed by the input of these experts and their interpretations of a set of *47 trends* researched over the last eight months. The scenarios are as follows:

- 1. A Corporate Community:** Continuation and growth (*see page 5*)
- 2. Alone in this Together:** Decline and collapse (*see page 10*)
- 3. #UN@YMQ** Limits and discipline (*see page 15*)
- 4. A.I.N'T it Swell:** Transformation (*see page 20*)

These scenarios can stimulate new thinking, future-proof long-term decision-making, and help to test emergent strategies. Ultimately, this approach can help in identifying a preferred vision for regional urban development and consequent opportunities and risks in the way we plan and invest in infrastructure.



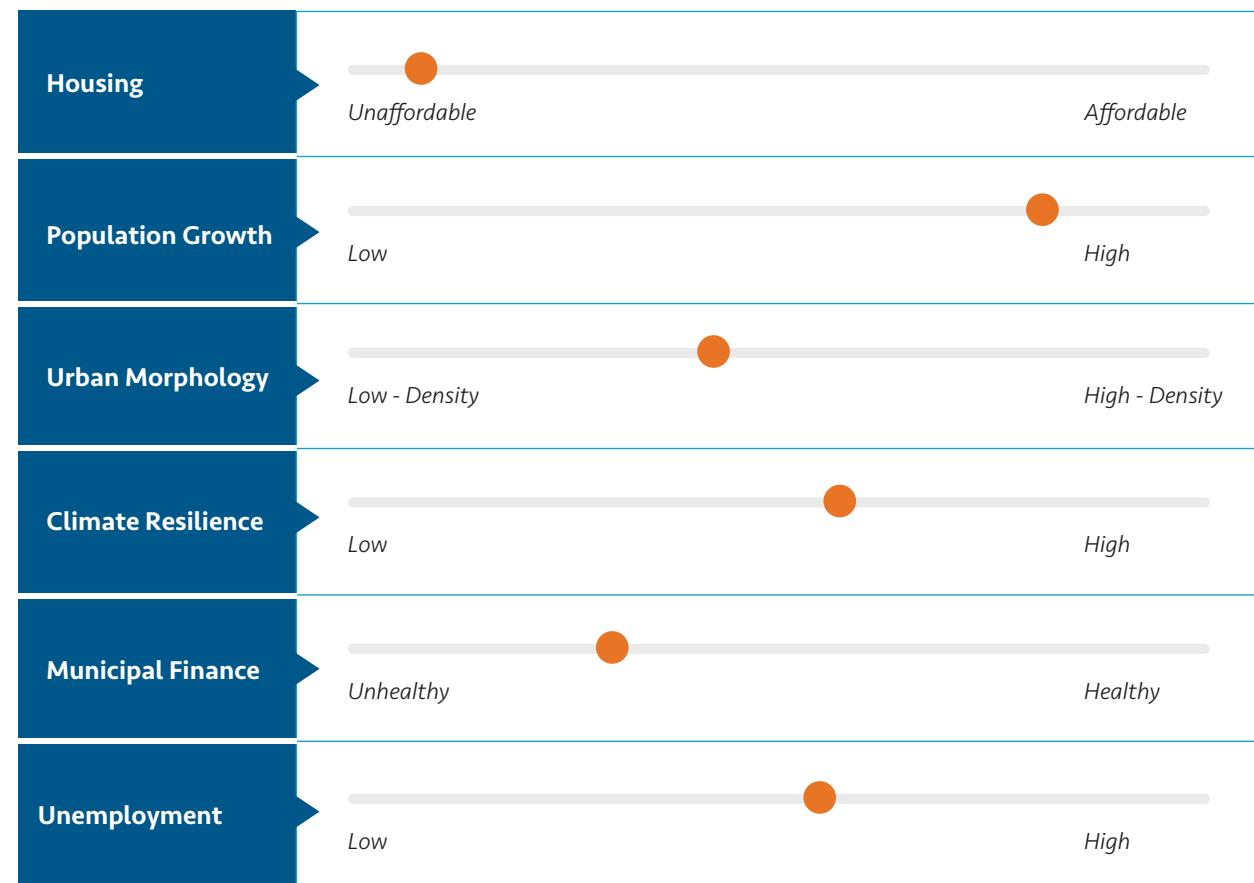
A Corporate Community

Continuation and Growth

Summary



Tech and defense industries are at the heart of the booming economy and growing population. Government regulation and investment in green infrastructure has curbed some environmental impacts, though exceptions for the extraction industry resulted in deferred environmental targets. The downtown core is trendy and expensive, characterized by major chains and corporate campuses. Services are privatized and corporations have a strong influence in shaping civic projects.



Scenario

In 2050, Montréal's economy is dominated by the tech and defence industries, fueling a population boom; the Ville de Montréal is 2.2 million large, while the communauté métropolitaine de Montréal (CMM) has 5.6 million residents within its borders (which stretch to the communauté métropolitaine de Sherbrooke (CMS)). While the post-pandemic rise of isolationism, along with China's regulation of the export of rare earth minerals, led to economic stagnation and the decline of globalization, many credit the provincial and federal governments' heavy investment in green infrastructure, tax credits for environmental retrofits, subsidies for service industries, commissioning of new artistic works, and auctioning of natural resource development and exploitation rights in the north for strengthening the economy.

As these debt-fueled government programs wrapped up, the discovery of lithium and dysprosium deposits in the north, critical for making electric car batteries and microchips, was of critical importance to the integrated North American Trade Zone (NATZ) and the new continental defence shield. Exploiting them was a small environmental price to pay for the prosperity of the province, especially with Quebec now on track to meet their deferred environmental targets in 2070.

With the economy growing and the effects of climate change - flash flooding, severe snow squalls and wind storms - increasing in intensity, many welcomed renewed regulation. Luckily, the government infrastructure programs had converted the worst-affected areas along the shores into green spaces or stilt-buildings for public service delivery. The carbon tax reigned in GHG, except in the extractive sector which, given its importance to the economy, was granted an open-ended exemption.

Many chip and battery manufacturers set up automated factories in Longueuil and Mirabel to have proximity

access to raw materials from the north. Tech start-ups followed, taking advantage of ready access to microchips and [Montréal's talent in Artificial Intelligence \(AI\)](#). The breakthrough success of a local tech startup heralded as "the next Facebook" solidified the CMM's tech reputation, and soon, programmers, software engineers, and data scientists flocked to the region. On their heels came venture capital firms, eager to invest in the next big idea.

The Island of Montréal (or simply, "The Island") is the hip and chic place to live and work, with each condo surpassing the next in extravagance and price. Luxury condos forty storeys tall line the streets (the striped-down building code won't let them be built any taller because of erratic climate-induced wind storms). The downtown has a corporate vibrancy; because of high rent, street-level retail is occupied by major chains, with designer showrooms with drone-delivery and franchise restaurants like Executive Food Trucks which rent former municipal parking infrastructure.

Because of the height restrictions, heritage and parkland has been opened for private development; the park surrounding Mount Royal has shrunk by eighty feet to accommodate condo buildings. While some complain, adding these high-value housing units to Canada's hottest housing market is one way to increase property tax revenue.

Corporate campuses of prominent tech companies like Facebook-Yahoo! Inc., have taken root in former malls, with new office towers, temporary housing, and private amenities. Because of perks like on-campus private concerts, the boundary between work and life is blurred. For many, their sense of community and identity comes from their employer. The startup mentality of long hours, sacrifice, and competition has become dominant in all industries, resulting in high levels of burnout.



Autonomous vehicles and generous work from home policies have driven up the price of single-family homes in the ever-expanding suburbs. Many move to start families or be closer to the seniors' care villages where their aging parents live. With schooling done from home, children are assigned schools based on their needs, rather than their home address. Parents, however, often send their kids to community learning hubs to log in to school so that they can work from home in peace.

Palatial estates sit just outside of the suburban communities. Private autonomous copter services deliver these tech billionaires safely to and from their corporate campuses or condo penthouses. If high winds prevent the copters from flying, then they, like others in the suburbs, take advantage of easy access to autonomous car sharing services; the majority of electric car sharing infrastructure, like overnight garages and charging stations, is in the suburbs. While autonomous cars are very expensive, those who own one make money by storing it off-island and letting it join the sharing economy.

Automation and AI have replaced many workers, not only in manufacturing and construction, but also in professional services. Many now serve primarily as reviewers, verifying and stamping the output of AIs. Those who are employed are in constant fear of being replaced. To remain competitive, they work longer hours and pursue professional development on their off time. However, their mental health takes a toll.

Those without jobs, like climate migrants or those replaced by automation, make their home in the cheaper industrial and manufacturing districts, where neighbourhoods have been shaped by the needs of industry, not people. When the building code was relaxed, so were social and affordable housing policies; what little remains has been moved to these neighbourhoods. However, there is a vibrant underground cultural life here, though most artists prefer the more affordable CMS.

The rise in population has increased Montréal's representation in the legislature, giving it more seats than any other region. This has helped the CMM and provincial governments to work together. There is a deepening divide, however, between Montréal and the rest of Quebec; the communauté métropolitaine de Québec (CMQ) competes with the CMM for businesses, tourists, and prestige. Many feel that the CMM skews the representation of Quebec and doesn't reflect the province's true feelings. People have protested, but have been countered by "Free Montréal," a Montréal secessionist group.

The CMM is responsible for governance, infrastructure, and coordination of services across the region. However, while some of the post-COVID recovery was financed by short term gains from selling off public assets (such as mineral exploration rights or Hydro-Quebec), the majority was financed through cost sharing arrangements leveraged against future municipal tax revenues and immediate debt issuance, burdens which the municipality still bears. And as the suburbs grew, so did service areas and delivery cost, exacerbating the strain on already overextended finances.

Luckily, privatization has yielded savings. Waste, sewage, drinking water, and public transit are now in the hands of private industry, relieving the municipality of the cost of maintenance. New civic projects are recommended by corporate partners (like the private management of municipal airspace for drone deliveries and taxi copters) and after careful consideration, the CMM often agrees.

Some say that privatization has led to a decline in service; even though shared car services are subsidized as public transit, some argue that algorithms prioritize private, higher-paying calls. There are also rumours that members of the CMM's Executive and Procurement Committees have been accepting "incentives" to direct contracts to certain bidders and keep tech friendly policies moving forward. These rumours are unproven, and, given the present

financial situation, the police forces are not funded enough to properly investigate. Regardless of their accuracy, however, it is clear that, as the repayment of debt looms, closer relationships between government and the private sector are inevitable.



Timeline/Pervasive Events

2024

In response to US trade sanctions, China curbs exports of "items of importance" - computer chips, rare earth metals - to Silicon Valley.



2030



After a controversial auction of the exploitation rights for recently-discovered dysprosium and lithium deposits in Quebec's north, the provincial Minister in charge suddenly retires to a ten-acre estate in Bermuda.

2037

Amalgamation expands the CMM to include Granby and its surrounding communities.



2042



Three people are injured in a clash between Quebec First and Montréal Libre outside of the provincial legislature; politicians denounce the violence.

2047

A worldwide K-Pop reunion tour kicks off by playing the Google-IBM Corporate AGM, the only Canadian stop.



Summary Table

Dimension	Driving Forces	Impact
Environment	Increased frequency and intensity of weather events - snow squalls, flash flooding, wind storms. Subordinate to economy.	Shore lines are vulnerable, especially the northern shore. Intensification in safer downtown cores and suburbs, investment in green infrastructure. Extended deadline to 2070 to meet climate targets. Limiting building height and affecting drone / copter traffic
Socio-Demographics & Behaviour	High income earners; strong identity and connection with work. Obsession with "being cool."	Increase in work hours and burnout; growing population. Extreme division between the haves and have-nots.
Power, Influence & Concentration of Capital	Soaring property values in downtown core and suburbs; large representation in provincial and federal legislatures; corporate	Montréal has great influence in Quebec politics; large divide between Montréal and rest of province; tech-friendly policies and privatized services;
Innovation	Job automation, remote work, autonomous personal air / land transport	Increased urban sprawl, pressure to train and remain relevant, increased mental health issues;
Economy & Finance	Focused on tech and defence; discovery of rare earth metals; rise of isolationism; government issuing debt	Population boom; attracting venture capital and other financial institutions; establishment of North American Trade Zone;
Population Distribution	Population boom; urban densification; corporate campuses; suburban growth; autonomous shared transit	Increased suburban sprawl; low affordability on island; migration of working class to industrial neighbourhoods;

TRENDS	Trends	Subtle Trends
	Suburban Growth /Urban Densification Increase in Taxation Needs Sudden Nature Shocks	Empowered Megacities Education 4.0 Tensions with Trade Partner

Alone in This Together

Decline and Collapse

Summary



Reduced government investment in infrastructure leads to a mass exodus of businesses and people. The CMM is dissolved and communities are administered at the borough level with informal coordination between boroughs and towns. The suburbs become more isolated and wary of outsiders. On the island, increased community management of neighbourhoods contributes to a strong sense of social connection.



Scenario

In 2050, the effects of post-COVID austerity linger; reduced government investment in public infrastructure and subsidies kept many on the edge of collapse. However, other provinces, including Ontario, invested heavily, including subsidizing companies to relocate to their province. While their debt-fueled economies sprang back, Quebec's austere one did not.

Trade agreements and globalization led to the global mega-mergers of many companies headquartered in Montréal, which then moved to places with lower labour costs and better tax advantages, while others took advantage of Ontario's relocation subsidy. Many were swayed by a leaked paper from the governing provincial party prioritizing Quebec independence; its authenticity was denied, but the damage was done. To staunch the outflow, matching subsidies were offered - if the leaving companies relocated to Quebec City.

People followed as fashion brands moved to New York City, tech to San Francisco, aerospace to Texas, and shipping to the new northern ports that could take advantage of the reconfigured shipping lanes through a newlythawed arctic. With only 1.1 million in the ville de Montréal, and 1.8 million in the former communauté métropolitaine de Montréal (CMM), many worry about their once-grand city, especially as representation in the provincial legislature has shrunk. Many feel Montréal's voice is not heard at the provincial level. Some believe the government dissolved the CMM in an attempt to reduce cooperation between communities and increase service delivery costs in order to drive more people out of the region so they could solidify their populist majority in the legislature for years to come.

With no CMM, municipalities are administered at the borough level with informal coordination between neighbouring towns and boroughs. On the island,



boroughs remain friendly and communicate with each other; however, the ville de Montréal is no longer the leader. Off-island, suburbs have isolated themselves from their neighbours, as social media's deep divisions are reflected in the municipal councils, driving the creation of values based communities. For some, this means suspicion of outsiders.

Many young people moved, either to other provinces or up north, for work, leaving their families behind, clustered in the centres of the boroughs. Former apartment buildings were turned into co-ops as owners looked to divest their assets, while others were simply abandoned. In some cases, entire neighbourhoods were turned over to community management. What little investment in public spaces there is comes from the communities themselves in the form of community-led projects; some use parks as urban farms, while others use them as spaces for gathering and debate. Formal and informal community-level engagement and consultation is the norm, and the culture reflects that; community festivals reflect and honour their communities and tell their stories. Everyone can contribute to the community; seniors take on leadership roles, such as child care, or giving advice. Cohabitation is encouraged between seniors and younger families as a way to exchange knowledge, expertise, and care.

Trust is currency, and personal relationships count for more than credit history; shopkeepers are likely to extend a tab based on a handshake rather than credit card. Amongst neighbours and communities, bartering and skills exchanges are the norm, from bicycle repair to delivery services. But they all are seeded in a culture of community support, like the rise of community microloans.

As the cost of real estate dropped, university and CEGEP campuses expanded, buying up their bordering neighbourhoods to make a buffer between them and the poverty outside. Plus, with Hydro-Québec's restrictions on energy consumption in order to meet energy export

quotas, the additional land allows the campuses to be self-sufficient with geothermal power. Online learning enabled professors and students to teach and learn from anywhere, expanding the universities' international reach. They are the largest employers in the city, however, their staff live in the isolated off-island suburbs, which leads to resentment of the local resident population.

The large influx of students makes the city more transient; with no reason to stay, the students leave the city during the summer. The city's transience is reinforced by resource exploitation up north; many come down for a weekend in Montréal, to visit family or have a night on the town at one of the many clubs or bars. However, these visits may be coming to an end; old bacteria released by thawing northern permafrost has caused outbreaks of disease, and the government has set up quarantine towns midway between Montréal and the north to protect the province at large. The success of the bars and clubs, along with the underfunding of police, have led to organized crime taking root on the north shore, setting up large, walled compounds. Local residents turn a blind eye, as their communities are crime free; organized crime doesn't want any trouble in their backyard.

Those fortunate enough to have an Internet connection cobble together work online, such as taking shifts as an Artificial Intelligence (AI) Gap Filler, resolving questions that AI can't yet answer. It allows for flexible hours, but provides minimal income and makes many feel hopeless. They are stressed about paying for the essentials, and encourage children to contribute to the family income by also working online. **It is tempting for families to take advantage of the provincial "Future of Quebec" subsidy, designed to increase Quebec's declining population by offering a subsidy to families for every child past the second.**

Shrinking population has meant that investment in infrastructure and public services have been cut to the

bone, even in the suburbs. The last major infrastructure project, a water-sewage upgrade, was delayed because of bureaucratic red tape, multi-community coordination, and reversals of the policies of previous administrations, making private companies hesitant to enter P3 partnerships. As a result, years of patching and repairing has created a patchwork system of infrastructure that needs to be overhauled when the money is available. Luckily, mild climate impacts have prolonged the life of most infrastructure, although flooded areas have simply been abandoned.

The wealthy live in Quebec City, the seat of power. Now that many residents have left Montréal, it may be time for the city's rehabilitation. **The province has begun to offer subsidies for rural Quebecers to relocate to Montréal, in hopes of making service delivery easier, the economy more robust, and Montréal a revitalized Quebec City.**



Timeline/Pervasive Events

2022

With the population fully vaccinated, protests now erupt outside the provincial legislature and city halls throughout the province, protesting the wave of austerity; the province holds steady.



2027



The **merger of Bombardier and Boeing is approved**, creating the second largest of the three remaining airplane manufacturing companies globally; the company immediately moves its headquarters and manufacturing to Hong Kong.

2032



Citing an increased administrative burden, the new provincial government dissolves the CCM, leaving it to the boroughs to coordinate services.

2036



Ground is broken on the James Bay II Hydroelectric project in the north of the province; temporary housing is set up for the influx of workers to the north, both Quebecers and climate migrants.

2047

After twenty-three years of delays, **the Montréal wastewater treatment project is put on indefinite hold** after boroughs refuse to agree on permits for the cross-borough work.



Summary Table

Dimension	Driving Forces	Impact
Environment	Increase in global temperatures; exploitation of the environment for economic gain; flash flood event.	Warmer seasons; Increases in mould and related breathing difficulties from wetter winters and warmer summers; air conditioning a right.
Socio-Demographics & Behaviour	Exodus due to shrinking economy; low birth rate; rising trust in permanent local communities.	Increase in values-based communities; thriving community arts; implementation of child subsidy.
Power, Influence & Concentration of Capital	Collapse of cross-region cooperation; power and capital centres in Quebec City; increase in neighbourhood and community leadership	Community-led programs and initiatives fill programming and service gaps; crumbling infrastructure - uncertainty drives out private investment
Innovation	Online learning; Consolidation of public services; remote work;	Educational institutions increase their international reach; resilience hubs bring all public services under one roof; people can participate globally in workforce, though for low paid work (like AI Gap Fillers)
Economy & Finance	Decrease in property values; Increase in local economies; barter and exchange; educational institutions are the largest employer; many multinational mergers	Expansion of educational institution campuses; trust is currency; people trade skills and services with one another; downtown communities feel transient, due to influx of students; the rise of megabcompanies that relocate to more tax-sensitive jurisdictions
Population Distribution	Concentration of population in centre of boroughs and towns; suburbs for those with jobs; suburbs become isolationist; young people move on for work leaving families behind	Turnover of neighbourhoods to community co-ops; influx of students and northern workers make population feel transient.

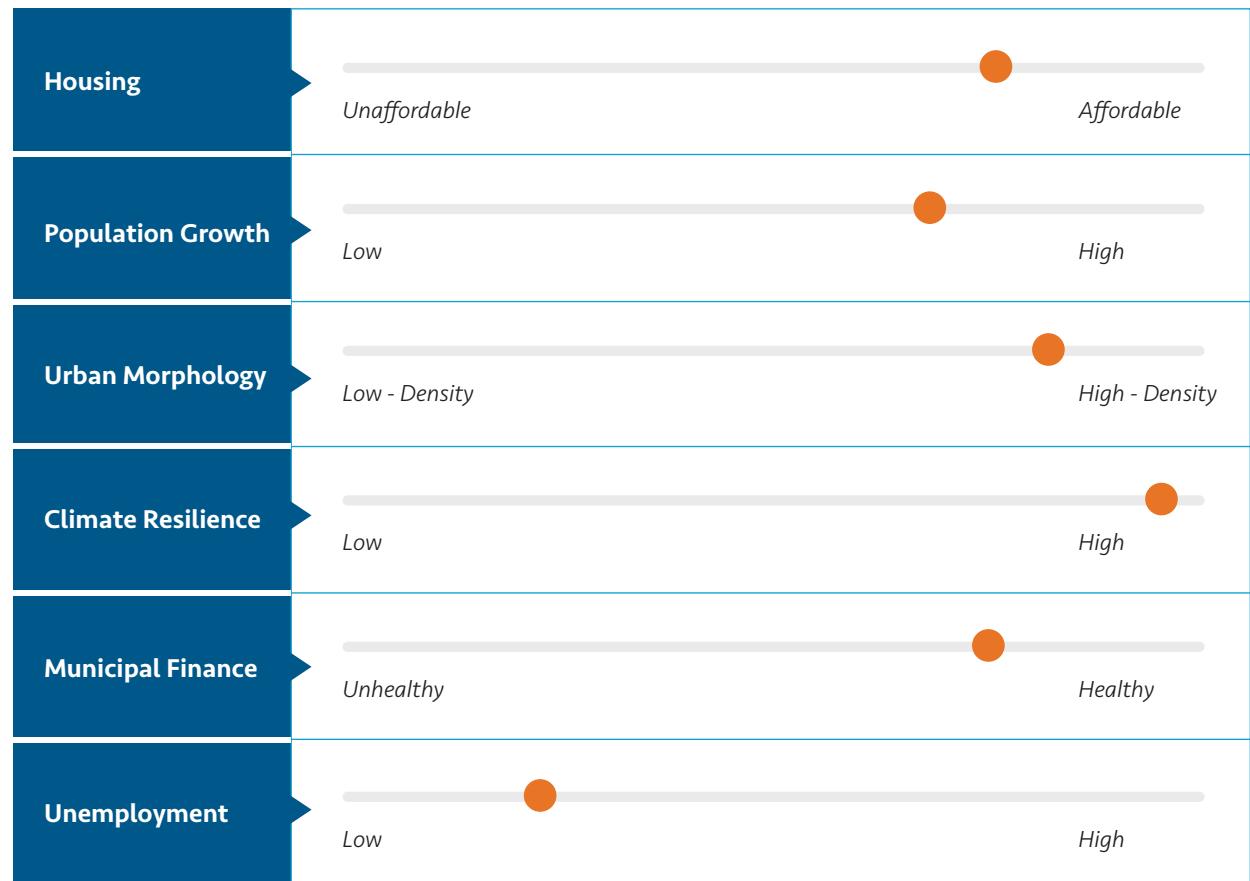
TRENDS	Trends	Subtle Trends
	<ul style="list-style-type: none"> Must be Austere Sharing Economy Rise of Co-Ops 	<ul style="list-style-type: none"> Remote Work Precedent Rise of Political Extremism Fear of Pathogen Exposure

Limits and Discipline

Summary



Montréal is world-leader in climate resilience due to increased government regulation and strong environmental policy. The UN relocates to Montréal, followed by a slew of international organizations, businesses, and NGOs. Security and environmental requirements lead to significant rebuilding and retrofitting of the built form, but a careful reuse of materials maintains the city's charm and character. Increased security needs lead to increased citizen surveillance.



Scenario

In 2050, Montréal's government-based economy is highly regulated. Shortly after COVID, Montréal's economy slowed. While the government subsidized faltering industries - like restaurants, entertainment, and travel agencies - it seized the opportunity to subsidize green businesses, regulate carbon, and enforce full life-cycle impact thinking. This helped Montréal reach its climate targets sooner than anticipated, showcasing the success of cross government cooperation, and bringing international attention to the city.

Others did not fare as well; with rising ocean levels, New York City (NYC) found itself underwater. Canada lobbied the United Nations (UN) to move north. Canada's reputation as a trustworthy peacemaker, and Montréal's newlyminted reputation as an international climate leader, swayed the UN. Montréal was rezoned, rebuilt, and reformed to accommodate the UN, with the crowning design achievement being the intertwining UN and communauté métropolitaine de Montréal (CMM) buildings, representing cooperation between the two governments.

During the upgrading and rebuilding of Montréal, many existing buildings - heritage and otherwise - were altered, retrofitted, or in some cases, simply moved. These changes were necessary, as the security and environmental updates to the onerous building code were deemed of such high importance that they superseded grandfathering clauses. However, materials like glazing, bricks, and steel, were reused, minimizing environmental impact. Many say the city feels familiar but different.

In order to meet the building schedule, the rebuild was funded using private-public partnership models: for most, the government dictates the requirements to private consortiums who build, maintain, and operate the infrastructure, and the government guarantees a 75-year

lease with the private consortium as landlord or service provider. This process meant less up-front capital investment and reduced maintenance and administration costs. However, it committed significant future municipal revenues.

Several rundown neighbourhoods were gentrified, becoming designed communities. All condos and developments not only have a mixed-use approach - high and low-income housing, entrepreneurship spaces, schools, etc. - but must also have a positive social impact. As such, new developments are planned as communities, and construction is often delayed until a full "community impact" study can be undertaken, frustrating developers, given the slow pace of bureaucracy. Waste is also regulated; "Collection Day" is a rare event for the neighbourhood kids when they get to see a garbage truck.

Strict socio-economic mixing policies are now bearing fruit; people feel connected to their neighbours, and tolerance and inclusivity has increased. [As Montréal is the UN host for climate refugees, and the epicentre of refugee claims in Canada, the downtown, suburbs, and small towns are home to people starting anew.](#) However, many gated compounds remain in the ever-expanding Quartier International. Embassies, and their security details, disrupt nearby neighbourhoods, as do ambassadors' residences, both on and off island. Sprawl is actively managed by the CMM's policy of intensification, but exceptions are made for ambassadors, some of whom live in sprawling gated compounds. They often fly to the Laurentians and Eastern Townships to visit exclusive clubs where business is conducted away from public eyes.

Security concerns have eliminated the downtown's parking infrastructure, leaving designated pick-up and drop-off zones, after which autonomous cars retreat to parking garages in the suburbs. While private car ownership is

allowed, mandatory participation in the sharing economy is required. Public transit is free, subsidized by car licensing fees. However, many active transit arterials connect the region, using decommissioned roads converted into green space. Given the traffic congestion from visiting motorcades, many bike, rollerblade, or walk to get around. However, fears of espionage encourage early closures, frequent patrols, and constant recording of all public spaces.

After a major hack attack on hydroelectric dams that flooded three northern communities, hydro-electric energy has become taboo. Energy conservation is enforced, with mandatory rolling blackouts in non-critical locations. Retrofits, ranging from solar panels to energy-absorbing paint, help make buildings self-sufficient. The energy grid is expanding, with public surfaces, like sidewalks and roads, now hosting weight-bearing solar panels, though snow removal during harsh, icy, winters, requires them to be replaced every few years, tripling the length of construction season.





Climate change is responsible for the harsher, icier winters, as well as the hotter temperatures that made Quebec ideal for rootborers and borworms that destroy crops and arrive unnoticed on the bottom of shipping containers in Montréal's port. An annual controlled burn of a three kilometer ring around the CMM prevents spread. However, to ensure food security, greenhouses and vertical farms - office towers converted into urban farms - line the flooded islands of the St. Lawrence. Work has begun on an artificial river running parallel to the St. Lawrence to provide easier access to water for more vertical farming.

The UN brought with it many international institutions and companies; non-governmental organizations (NGOs), international agencies, and lobbying firms fill Montréal's downtown office towers and suburban commercial lowrises. The majority of residents work for them, directly or indirectly, having gone through a thorough background and security check. This process assigns individuals a security and trustworthiness score (STS) by collecting and analyzing data, including their choices of employer, associates, and banking history, amongst other data points. While participation is said to be completely optional, it is, in practice, mandatory; those without an STS are considered unemployable. They, along with the low STSers (because of a criminal past, a controversial social media post, or an association with other low STSers), find employment in the few non-UN related jobs left. They are often taken advantage of, and have little to no recourse. They fall into a cycle of decline, end up underhoused, and are resettled outside of the CMM.

Some worry that the increase of international travel might make Montréal the epicentre of a new pandemic. Others fret about the loss of sovereignty. Those concerns led the province to strengthen ties to the CMM by making it the only community responsible to the new Ministry of International Cooperation. The CMM has jurisdiction over municipal affairs, urban planning, security, and other services, and is accountable to oversight

committees of borough representatives, underserved groups, and community members representing stakeholder groups. All decisions, however, must adhere to provincial and UN policy.

The “International Transfer” from various levels of government help support the increased demand on services as a result of the UN and provides the majority of the CMM’s operational funding. The UN and province have an agreement on which services will be provided to the UN. For example, the municipality must provide protection services to the UN and its delegates, and all UN international laws and agreements must be obeyed, increasing administrative burden in the ever-growing bureaucracy. Security considerations have also increased tenfold, from financial monitoring and regulation to catch bribery, to ubiquitous government surveillance. Following the aftermath of the hydroelectric hack, the province established a Digital Cyber Squad to counter attacks on critical infrastructure, and monitor all public spaces (both physical and digital) for espionage, subversive behaviour, or contravention of the law. Fines for minor breaches, like spitting or littering, are sent by email, while serious breaches are dealt with by enforcement squads. There are few privacy advocates left, at least publicly, and despite the unease that many residents feel every day, few choose to complain.

Timeline/Pervasive Events

2022

The provincial government releases its post-pandemic recovery plan titled **"Healthy People, Healthy Places,"** focusing on targeted post-pandemic subsidies and stimulus to green companies.



2029

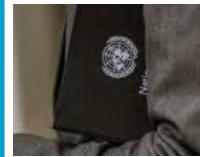


Environmental advocates flock to Montréal to mark the achievement of reaching not only the 2030 carbon reduction targets, but also the **2050 carbon neutrality targets.**

2033

Canada wins its bid to host new UN headquarters.

The Ministry of International Cooperation begins work on rebuilding and reshaping Montréal.



2039

A hack attack on hydro-electric infrastructure in the north floods three towns and derails Churchill Falls renegotiation talks; the province establishes a dedicated counter-attack force (Digital Cyber Force) with broad powers to monitor, surveil, and prevent, both in online and physical space.

2046

The US and Chinese Ambassadors were spotted dining together at Chez Gumes, a popular vegan restaurant in a vertical farm overlooking the artificial river running through Sorel-Varennes.



Summary Table

Dimension	Driving Forces	Impact
Environment	Seasonal extremes and warming weather; rising ocean levels; increased environmental regulation	Insect infestations that destroy crops moving agriculture to vertical farms; carbon tax; mandatory energy conservations and rolling blackouts, and reduced waste output
Socio-Demographics & Behaviour	Socio-economic mixing policies; increased concern for community; increased state surveillance; Security and Trustworthiness Scores (STS) prevalent.	Trust and inclusivity built in buildings and neighbourhoods; community impact studies prior to major projects; constant monitoring increases anxiety and depression
Power, Influence & Concentration of Capital	UN and international law adhered to; increased cooperation between CMM and UN; P3 projects reshape the city	Strained bureaucracy; ambassadors and embassy needs given priority; more state control and intervention and paranoia; municipal finances committed to longterm service contracts or leases
Innovation	Automated transport; active transport arterials; Security and Trustworthiness Scores (STS) prevalent.	Parking infrastructure moved to suburbs; association with low-STS scorers discouraged, people strive to know the right people and live in the right spot.
Economy & Finance	Regulated financial markets and transactions; government-based economy; P3 projects	Dependence on UN and related businesses; STS and invasive background checks required; bank accounts monitored for money laundering
Population Distribution	Influx of climate change refugees; stable population; socio-economic mixing policies; managed suburban growth and densification	Montréal is the refugee capital of Canada; people are assigned to resettle in the downtown, suburbs, and small towns; the poor and remaining wealthy live alongside one another.

TRENDS	Trends	Subtle Trends
	Climate Migration Socio-Economic Mixing Mobility Diversification	Changing Shorelines Data Ownership Tensions Fear of Pathogen Exposure Building Retrofitting

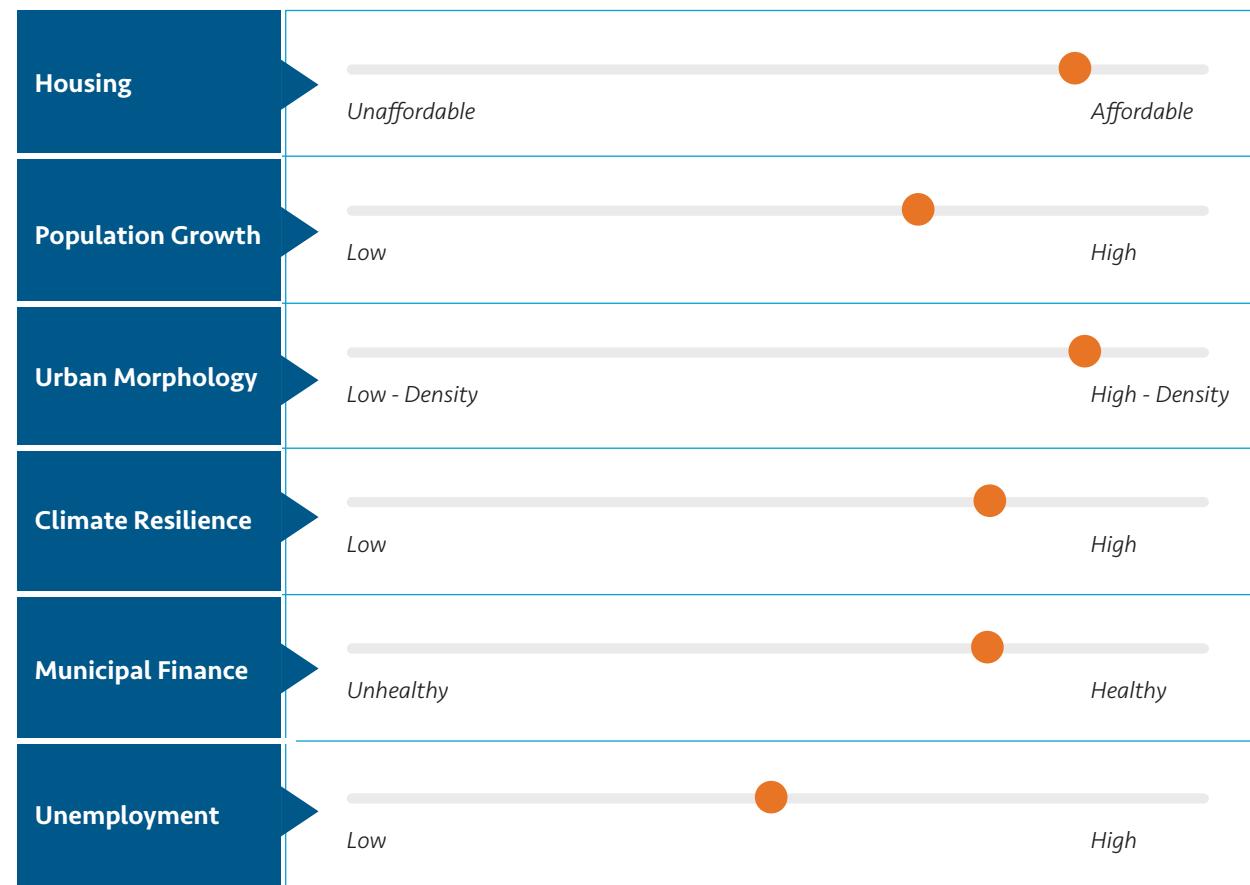
A.I.N'T It Swell?

Transformation

Summary



Thanks to government investment in green energy, Montréal becomes a major exporter of green energy. The majority of residents receive some form of Universal Basic Income, allowing them to pursue employment based on personal satisfaction and passion. City planning and infrastructure decisions are primarily made by AI and smart city technologies. As life becomes increasingly virtual, so too does personal identity and community. This contributes to increased isolation and a distrust of outsiders.



Scenario

In 2050, climate change has been good for the city of Montréal. Hayfever and allergy season might run eight months of the year, but at least the city does not experience the same extreme weather as Toronto or New York. This has made it an attractive place to settle, leading to an increase of population: 1.7 million in ville de Montréal, and 4.1 million in the former communauté métropolitaine de Montréal (CMM).

Nicknamed "Green Texas," Quebec is a major green energy exporter, supplying the entire eastern seaboard of the United States with electricity, and exporting lithium, batteries and knowledge to hungry markets in Europe and Asia. The post-pandemic government's investment in the development of these new sources of renewable energy is paying dividends - literally, to publicly-owned Hydro Quebec.



With a tenfold increase in revenue, Hydro-Quebec's provincial dividend enabled the province to pay off its debt quickly while increasing municipal transfers and investment in municipal infrastructure, both critical and noncritical. However, for every long-awaited city-wide infrastructure project (like upgrades to wastewater treatment facilities), another targeted wealthier neighbourhoods (like the installation of electric vehicle charging stations around Parc King George). Many questioned how objective the funding decisions were, and when it became known that a shelter would be demolished and replaced with a state-of-the-art community centre in the Mayor's neighbourhood, Montréalers marched on city hall, demanding all citizens have equitable access to services and the benefits of the energy economy.

In response, Montréal-based Members of the National Assembly (MNAs) used their voting block to convince the left-leaning government to pass a top-up to the federal pandemic legacy project, Universal Basic Income (UBI). Using funding from energy revenue and savings from assistance programs and healthcare, the majority of Quebec residents receive some form of UBI. However, some top earners have snuck income offshore in order to qualify.

Along with the protests, a group of hacktivists penetrated the CMM's data firewall, installing an algorithm to gather information from existing sensors, like traffic cameras and water meters, log patterns, and reallocate services and direct infrastructure investment accordingly; once Montréalers saw data-driven decisions being made, they began to support AI decisions over the bureaucrats. The success of the city-management Artificial Intelligence (AI) led to the formation of the provincial Bureau of Municipal Information (BMI) to manage municipal data collection and interpretation via AI, and implement resultant actions, throughout Quebec. With that mandate, the BMI began to centralize and manage services and

allocate resources, from library management to automated transit services to building permit review. Data collection is now key to a well-functioning government, with Internet access a guaranteed, public utility.

The BMI also uses smart city sensors to estimate a company's level of strain on the municipal system, and bill them back. Transportation, for example, pays for its usage of roads and pollution, while accounting firms pay for electricity usage and sewage treatment. For individuals, payback depends on income and can take many forms: while some do direct payment, others do volunteer work cleaning parks or sorting recyclables. A municipal sales tax adds to the BMI's budget, as do donations to "la Fondation d'Infrastructure Municipal," a foundation that encourages people to improve municipal infrastructure and services by giving tax credits for donations on par with political parties.

As a result of the BMI, municipal governance has shifted; if the BMI AI wants to proceed with a project requiring a change in law, it pushes a referendum out to mobile devices. The result is yet another data point. A recent predictive analytics upgrade has enabled the BMI to build infrastructure ahead of demand; however, some believe that a predictive model reinforces and institutionalizes wealth and poverty, the exact thing that it was meant to challenge.

Employment is based on satisfaction and passion; there are more artists, entrepreneurs, and PhDs. The cultural sector is a large employer, with thriving online theatres, virtual museums, and e-publishers, while many enrollment in liberal arts-base Massive Online Open Courses (MOOCs) is flourishing. And now that risk has been somewhat assuaged by UBI, digital entrepreneurship flourishes amongst the disadvantaged. Many professionals also work remotely from virtual "work centres," like surgeons who do

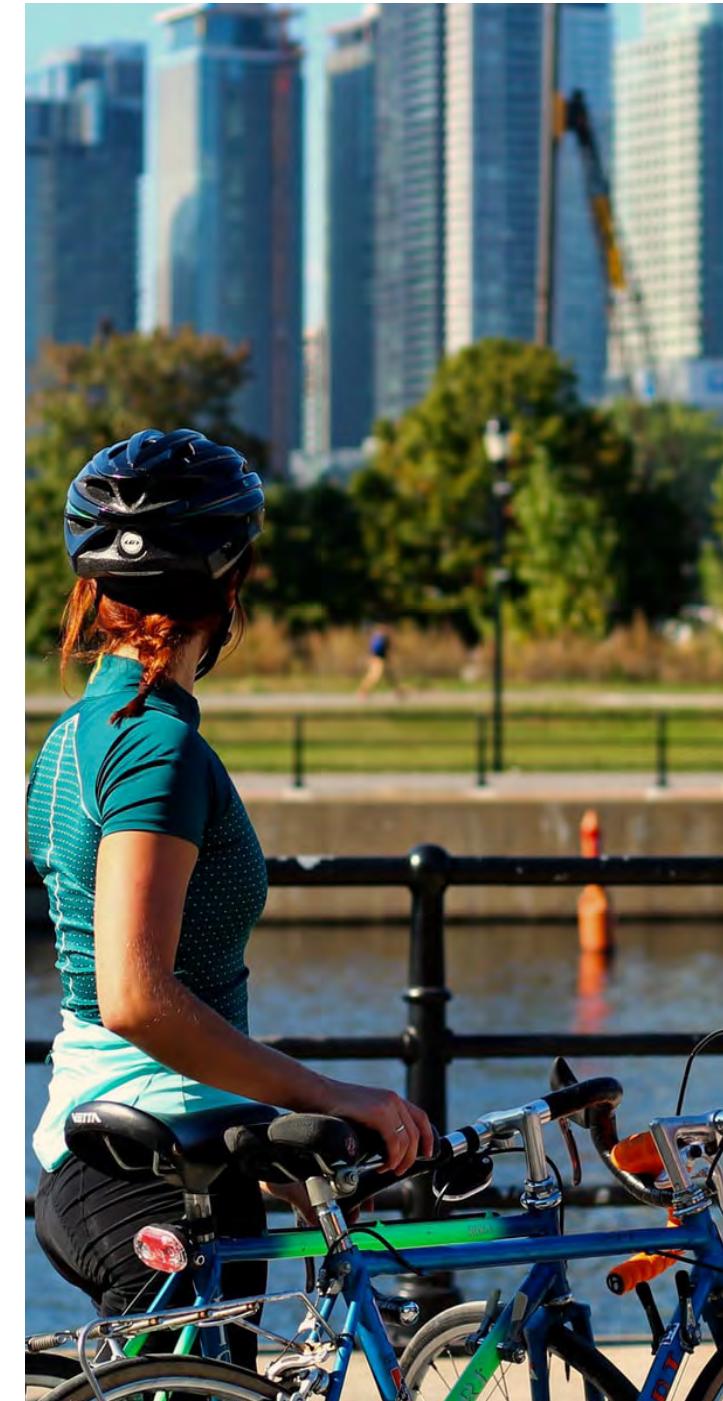
remote surgeries with mechanical hands.

The work force is fluid, and to attract employees, employers offer positive incentives, like reduced workweeks that enable employees to look after their parents who age in place. Cash-strapped small business owners that can't afford automation voice concern about attracting workers for unattractive work, and often do it themselves.

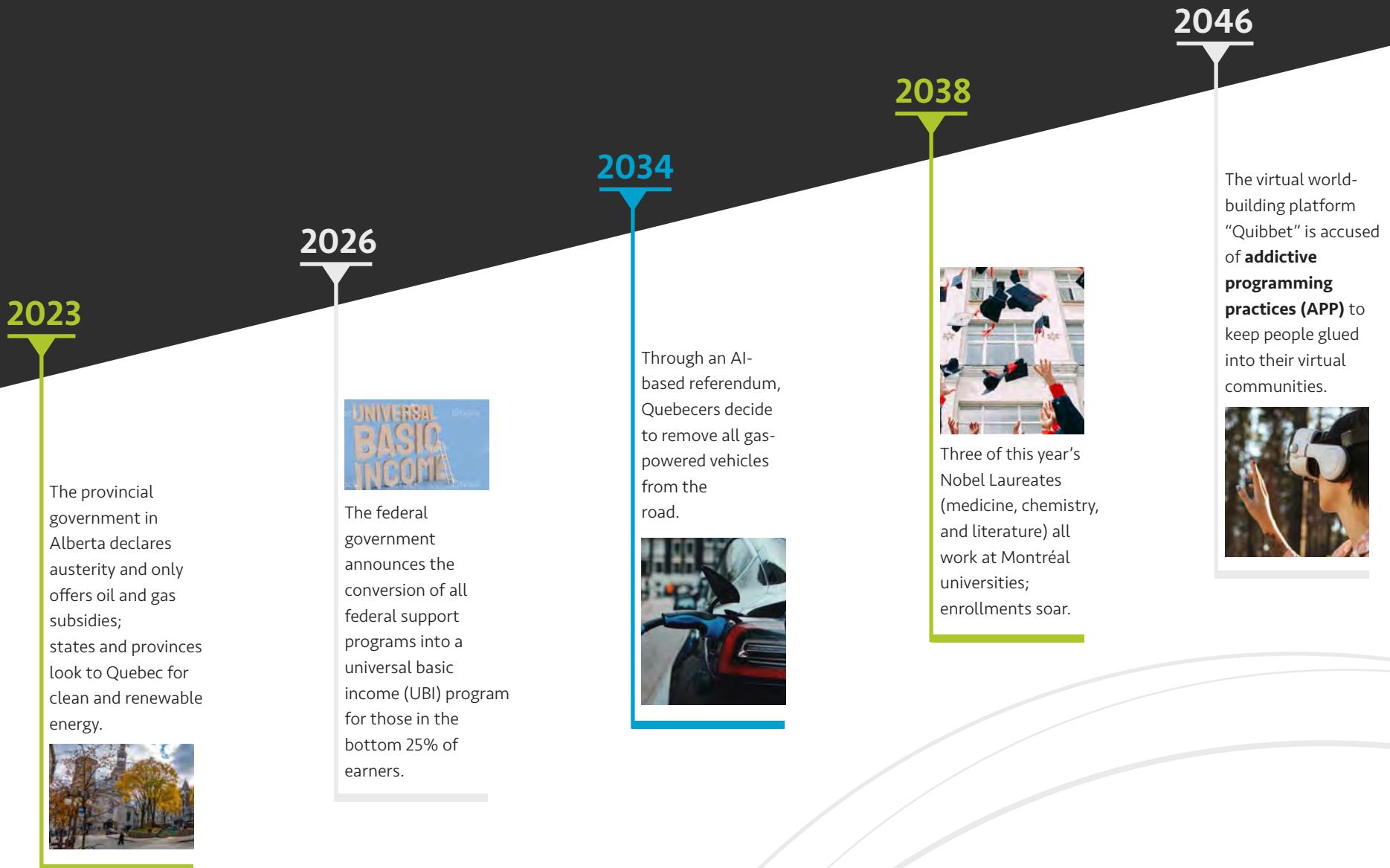
Others rely on the five year residency rule before people are able to claim UBI, and take advantage of the latest influx of Louisiana climate migrants, hiring them to work in poor conditions for low pay.

Local provisioners crowd out multinational corporations on downtown streets. The virtualization of work has allowed the conversion of abandoned office towers into community housing and co-ops based on chosen communities intended to help build connections between people. The BMI's mandated green retrofitting was meant to give people a sense of pride in where they lived: harvesting rainwater and using grey water systems were meant to protect the city's drinking supply, mandatory usage of embodied carbon building materials meant to reduce carbon in the atmosphere, and green roofs were meant to clean air and contribute to the goal of zero carbon. However, as life has become increasingly virtualized, identity stacking - the connection to multiple virtual communities of identity and interest - has moved many to seek their community in online spaces. With advances in Virtual Reality (VR) making the virtual space as real as the physical one, many spend their days living only in the virtual world. More people live in bare, low-cost, utilitarian, single-bedroom buildings that cater to those that have gone "full digital." When they venture outside of their buildings, they are suspicious of people from outside of their virtual environment. Public green spaces, while connected to encourage active transport, are fiercely protected by their surrounding communities; many who enter a park that is not on "their home turf" report feeling uncomfortable, and fear being followed.

This rise of disconnection and absence of unified identity have led many to leave the city for the suburbs and smaller towns to try to find that identity. Many suburbs, while still subject to the BMI, are built around a common identity, and many search for a sense of spiritual meaning in the increasingly alienating world; religious practices are on the rise, as are political factions that give people an immediate sense of connection and identity. Depression and anxiety are prevalent; it's the feelings of alienation and disconnection, not poverty, that lead to the majority of crimes nowadays. The BMI's algorithm approaches it as an issue of law enforcement, and many who had supported the BMI AI's adoption are beginning to think it may be time for a return to human intervention.



Timeline/Pervasive Events



Summary Table

Dimension	Driving Forces	Impact
Environment	Mild impact from climate change; investment in green infrastructure and renewable energy	Longer hay fever season; Montréal is ideally situated to welcome more climate refugees; benefit from green energy hub
Socio-Demographics & Behaviour	Satisfaction driven populace; virtualization of life; community-based housing; increase in seeking meaning and connection	People seek passion and indulgence; some disconnect from reality and find connection in virtual space; no overall sense of identity or community; people become suspicious of those outside of their social circle; rise in political extremism and religious practice; depression and anxiety
Power, Influence & Concentration of Capital	Universal Basic Income; AI-optimization based decisions and investments; provincial control of municipal affairs;	Some hide income offshore to qualify for UBI; AI charges back companies and people for usage and strain on infrastructure system; provincial centralization of services and decision making; AI-selected referenda pushed directly to people on certain issues
Innovation	Smart city sensors; City-management AI with predictive analytics; enhanced VR; work centres3D printing and modular homes.	All municipal investment and resource allocation decisions are based on algorithms and data and reinforce the inherent biases therein; the virtual world is indistinct from the real one, and people can spend all their time in virtual space; virtual and remote work
Economy & Finance	Universal Basic Income; remote work	UBI leads to more passion driven career selection; reduced risk leads to more underrepresented groups to become entrepreneurs; local economies emerge, crowding out multinationals; professionals can build international client bases.
Population Distribution	Identity-based suburbs; Virtual spaces as home; Co-op towers in downtown; sprawl and growth managed by city management AI.	Those who live in virtual space; others in downtown have clung to chosen identities / families for their living spaces. Those who fear the alienation of the virtual worlds flock to identity-based communities in the suburbs as available.

TRENDS	Trends	Subtle Trends
	Smart City Testing Energy Revolution The Addiction and Dependency	Digital Activism Remote Work Precedent Digital Divide The New Gig Economy



futurecitiescanada.ca  @FutureCitiesCA

