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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 narratives. These narratives provide a structure to develop 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

	Futures			
Forces	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 Narratives 3

The Process

The following scenarios were developed with the *questionnaire input* of a broad expert group consisting of Calgary municipal and Alberta provincial government, architects, planners, designers, academic researchers, and community hubs. The contents of the scenarios are informed by a set of <u>47 trends</u> researched over six months in 2019-2020, alongside input of these experts. The scenarios are as follows:

- **1. Same Elites, Different Pile:** Continuation and growth scenario (see page 5)
- **2. Detroit North:** Decline and collapse (see page 10)
- **3. Sharing is Caring:** Limits and discipline (see page 15)
- **4. Tourism on Steer-oids:** Transformation (see page 20)

These scenarios will support the expert group in identifying a preferred vision for regional urban development and consequent opportunities and risks in the way we plan and invest in infrastructure. Responses from the expert group will be used to define promising actions to support future-readyinfrastructure planning and investment.



The Process 4

Same Elites, Different Pile

Continuation and Growth

Summary



The economy diversified, Calgary and Edmonton are in the last stages of recovery. Continued prosperity depends on a cut-the-fat attitude, and a culture of overwork and retraining. Recurrent climate events force the now booming population out of the blighted downtown core.



Scenario

In 2050, Alberta's powerhouse mixed-energy economy has driven a population boom. While thankful to agriculture and timber for holding the economy steady during the "downturn years," the economy has evolved, with Calgary, Edmonton, and the towns in between now sitting at 4.5 million residents. Government subsidies, infrastructure investment, and corporate tax cuts lured green energy companies, along with their satellite ecosystems, away from Ontario and California. The colocation of green energy and oil and gas, historically rivals, drove mergers and acquisitions, enabling an economic ecosystem based on energy distribution, financing, and market understanding. With the oil and gas industry now in decline due to advances in green technology, green power is the driving force behind Alberta's economy.

The speeding economy, however, means longer hours for those working in it. Many who were made obsolete by automation and AI, laborer and clerk alike, have since been retrained through government-subsidized programs for better jobs in the tech sector. Those who did not take to the retraining or felt that they were too old to retrain either remain unemployed, work in the few low-level service jobs still available, or work in struggling "mom-and-pop" shops. Those that are employed feel an implicit pressure to remain relevant through training and certification, on their own time andexpense. While many top universities offer virtual certifications for skill upgrades, people are drained: these unspoken demands take a toll on mental well-being.

In order to attract top talent from across the world, companies encourage from-home work, to improve quality of life; theoretically, parents have time to spend with their children to help them with homework from a school curriculum highly shaped by skills needed for the economy. Financial math, green science, and the history of globalization are core courses, while music, visual art, and

physical education have all but disappeared from school curriculums. However, in practice, private tutoring services and group lessons fill in the gaps that busy parents don't have the time to fill.

While the encouragement of from-home working has reduced the need for people to go into the office, it is not uncommon for many companies to maintain some form of an office footprint. Office space is now primarily used for record storage, meeting space, and for essential "in-person" functions, like getting a legal team together, evidence storage, or collaborative design sessions. After all, while footprints have shrunken, office space still servesas a marker of status. Physical office space is still seen as a measure ofa company's viability; the bigger the office footprint, the bigger the bottom line. Smaller companies, cultural organizations, and nonprofits, however, keep their administrative footprints small, adhering strictly to workfrom-home to keep costs down. They share space as much as they can which facilitates cultural innovation.

In the downtown core of Calgary, the office towers stand less full. As the shrinkage of mountain snow caps accelerated, the Bow and Elbow Rivers flood downtown Calgary on an annual basis. Most left the urban centre for the suburban outskirts, causing a housing-price increase in suburban neighbourhoods. Former oil field workers cashed out, sold their homes, and moved further out. Any new construction has been driven out of the downtown and into the populous suburbs and the regulatory patchwork of the many small towns throughout the CEC.

Similarly, in Edmonton, the regular British Columbia wildfires blow smoke into Edmonton, causing a dense haze to sit over the city, causing a similar exodus to less-affected areas. Those who are disadvantaged and could not leave are living as best they can. The few independent grocers that they can access charge high prices, as they struggle to make

their incomes fit both rent and food. They remain there, in flood plains or smoke zones, aging in place, unlike wealthy seniors who, after retiring at the age of 73, live in privately-run elder-care villages on the outskirts, or others who live with their families in care-taker suites of homes renovated back when the Boomers had needed them. They are joined by climate refugees who live in the inexpensive urban areas, seeking opportunity in Alberta's economy. They settle in neighbourhoods close to people with shared identities, trying to find and rebuild a sense of community in a new land.

With the advent of shared rapid car-based autonomous transit and work-from-home policies, getting anywhere within Alberta is quick and easy. Because of that, new suburban developments have popped up on former agricultural land far away from city centres. They have the space for shared car infrastructure (i.e. parking structures and charging stations) while championing the credo of "a park on every corner." Those left behind in the cities are envious; in Edmonton, "Right to Drive" protestors decry the removal of urban driving infrastructure, leaving paved parking lots used by few, while in Calgary, urban spaces are evaluated based on a return-on-investment framework, leaving some abandoned, untended, crumbling, only usable for rain water absorption and as habitats for wildlife escaping the mountains. Urban Hunting Lodges allow the few remaining urban middle-class to enjoy the pleasures of immediate hunting after work while also controlling the urban wildlife population. These exclusive memberships bring with them status.

Status is the obsession of the middle-class; sending kids to a real university campus instead of virtual lectures carries as much cache as eating steak instead of following the majority of the world's vegan or lab-meat diet. "Owning yourself" (i.e. owning, not renting, your possessions) is another marker of class; those that can, loan their

possessions to the sharing economy for profit (which the disadvantaged cannot). However, this lifestyle is increasingly fueled by crypto-credit debt in spiraling attempts to keep up with the Joneses; teenagers, plugged in to friends around the world, are disillusioned with their parents' consumption.

However, the competition goes beyond the backyard and affects municipal strategy as well; Edmonton and Calgary not only actively compete with each other for business and prestigious infrastructure, but also with the new mega-city of Red Deer. If one has a lower tax rate or a new building, the others try to match it. It results not only inindependent municipal regulatory frameworks throughout the province, but also in a patchwork of infrastructure that may not meet the needs of the public. Edmonton's vertical sculpture garden designed by a star architect and Calgary's concert hall as an homage to Lincoln Centre are seldom visited as they don't reflect the needs of the public, and are derided as a waste of taxpayers' money.

Concern over finances has led to public-private partnerships for infrastructure and privatization of the management of public services, both municipal and provincial. The expansive growth of suburbs has made it difficult to finance municipal public services, while the provincial government is saddled with debt from rebuilding the economy. While having single companies thatmanage services for several municipalities has led to some level of standardization, the privatization of certain services has gone more smoothly (public transit has been converted to public subsidies of car sharing programs) than others (the expensive Nunavut Water Pipeline to bring fresh glacier water to aid with frequent reservoir shortfalls was protested by the bands of Treaty 8, arguing that the government had failed in its duty to consult).

Smaller cities capitalized on the urban exodus by actively courting the wealthy. As people decided where to move,

divisions that had lived on social media began to appear in towns. Different towns became hubs for different beliefs, and when people sought a place to live, there was a desire to align physical communities with attitudinal ones.

However, the majority of wealthy people moved to the edges of small towns and suburbs, living in semi-rural seclusion on their acreages, or "ranch estates." Those who work the fields or raise steer see them as interlopers, refusing to speak to their neighbours (which doesn't bother them in the least). The rural residents are resentful of the encroachments of the land, space, and privilege that the "elite" (the wealthy, suburbanites and small towners) are taking, and have formed a kinship with those in the downtown urban core.



Timeline/Pervasive Events

2043

2030

2025

As the US economy begins to recover from COVID-19, oil production in the Permian Basin begins to slow; to extend its life, the US slows production and keeps it on reserve for "critical emergencies," trying to fill the gap with crude imports.

10,000 MILE

An Ontario company announces the invention of the 10,000-mile, 10-minute battery, and its imminent relocation to Alberta.

of flooding, major declare that they will **no longer** insure companies or businesses in locations on Calgary's flood plains.

2035



After the third year insurance companies



2039

government and lobbies **to make** corporate tax cuts permanent.

The provincial government follows other jurisdictions and enacts legislation to require all new vehicles in the province to be autonomous and electric; the expected backlash from oil and gas companies does not appear, as the majority have merged with green energy companies.





2048

Canada commits to accepting **100,000** climate refugees from across the globe, in addition to supporting the relocation of 100,000 climate refugees from the coastal regions of Canada.

Summary Table

Dimension	Driving Forces	Impact
Environment	Increase of extreme weather events leads to downtown cores becoming increasingly unlivable.	Exodus from downtown core; concentration of low-income communities in downtown core.
Socio-Demographics & Behaviour	High immigration; companies encourage remote working; obsession with status.	Booming population; consumption of exclusive memberships (i.e., hunting lodges);increased personal debt.
Power, Influence & Concentration of Capital	Government investment in mixed-energy sector; wealth is concentrated in communities.	Green tech companies thrive; highly skilled/specialized workforce emerges; communities build to attract wealth.
Innovation	Job automation; shared rapid car-based autonomous transit; emergence of 10,000-mile, 10-minute battery.	Increased pressure to retrain to avoid low-pay service jobs; increased mental health challenges; suburban sprawl.
Economy & Finance	Diversified economy (agriculture, timber, oil/gas); government subsidies for developing sectors; corp. tax cuts.	Population boom; attracting green energy industry; M&As between green energy & oil and gas; increased P3s.
Population Distribution	Urban exodus; population boom; shared rapid car-based autonomous transit.	Increased homogenous values-based communities; increased suburban sprawl; underfunded public services.

	Trends	Subtle Trends
TRENDS	Energy Revolution Suburban Growth Mobility Diversification	Education 4.0

Detroit North

Decline and Collapse Scenario

Summary

After a total oil & gas collapse,residents and corporations leave Alberta in droves. Alberta rebuilds around agriculture, selling fertile land to foreign conglomerates. Small tourist towns emerge around wealthy farmers & ranchers. Low property values and strong local governance systems foster thriving public spaces and a globally-relevant arts scene.



Scenario

In 2050, agriculture drives the Alberta economy. The writing was on the wall for oil and gas, especially after the new United States government declared its intention to wean their economy off of fossil fuels by 2035, a plan which was as ambitious as China's plan of putting a man on Mars. Some still insisted that the next boom was around the corner, demanding infrastructure to support their assertion. When federal support wasn't forthcoming, many tweeted their anger, lashing out at other provinces and threatening to launch Alberta's own crypto-currency. Provincial politics focused on "keeping up the good fight."

But once they realised the fight was over, it was too late; oil and gas companies that were headquartered in Alberta moved to Texas, the green energy hub of North America. The years of fighting, coupled with the rising western independence movement, businesses that were considering coming to the province to stay away, because of regulatory uncertainty, fear of restricted access to the Canadian market, and reputational impact. Others already in the region began to trickle outwards, looking for a more stable place. A few held out hope for a return to boom times, mainly those in the official opposition, the Western Exit (WEXIT) party, but the majority knew better. Many who were employees on the oil fields left the province to find work or care for their aging parents elsewhere.

A beetle infestation forced a major controlled burning of forest several years in a row, devastating the forest industry. The smoke from the fires drifted over reserves, northern communities, and Edmonton, with many moving further south, and eventually, away. Once oil and gas and timber began to leave, others followed in droves, from Calgary, Edmonton, and every town in between. Many blamed remote work policies for facilitating such a large outward migration: classics professors, architects, and even yoga instructors could move to provinces that better aligned with their values and standard of living, especially since their clients were no longer local.



Even after government employees were required to remain resident in Edmonton, the population continued declining until the Calgary-Edmonton Corridor (CEC) sat at 1.8 million residents.

However, climate change has been good to Alberta. Warmer seasons have meant more land open to longer growing seasons. With many of the world's food systems being recalibrated due to climate change, agricultural land became more and more valuable. The prairie provinces were looked to by many as the new land of plenty. Farmers and cattle ranchers leased, then sold, their land for outrageous prices to conglomerates headquartered in Ohio, Kiev, and Beijing. With their family legacies secured, farmers and ranchers converted their farmhouses to walled palatial estates, purchased relaxing hobby farms in Ontario, hobby ranches in Montana, or penthouses in Chicago, and commuted between their new properties by autonomous aerial drones. The smaller towns around those areas flourished, becoming seasonal boutique tourist towns, and catering to the needs of the rural elite.

Non-agricultural land was also important for the agricultural conglomerates: it could either be converted to warehouses for packaging, processing, and distribution (though the majority of that was done via androids, drones, and AI), or reclaimed as agricultural land. The burnt forests wereworked into fields by autonomous heavy machinery, while suburban land that stood mostly empty was sold to out-of-province developers at a loss. They packaged and resold large parcels to conglomerates as long-term investments, knocking down the houses and working to convert the land back to the fields they had been years ago. Municipalities large and small actively encouraged and assisted in this plan, encouraging relocation to the city centre, and even expropriating the stubborn few who remained behind.

The farms are heavily automated, requiring very little human intervention; they are monitored remotely via robot

workers, self-harvesters, and self-regulating fertilizer/ pesticide drones. A small few people are employed as farm rovers, doing inspections and local system repair. They are paid well, eat well, and live well, along with some provincial and municipal government employees, those who work for the federal environmental restoration bureau, and local business people. Owning their own homes and condos near the Calgary and Edmonton cores (which, besides the boutique rural tourist towns, are the only cities in which to live), they are the ones who can provide to the sharing economy (which is restricted to urban centres only).

But they are the exception; the majority of people who remain behind are gig workers. They couldn't afford to move to another province to find work, or didn't have the skills that would make such a move matter. They cobble together an income however they can: during the autumn, most take multiple gigs to help with the harvest overflow, while during the winter, they take virtual gigs or Employment Insurance, while the younger learn skills virtually. Many feel hopeless; stress, depression, anger, and anxiety fill their 60-hour work weeks as they yearn to better themselves and escape the cycle that they have fallen into.

With rent being so cheap, they rent large, decorative apartments or colourful townhouses in the downtown cores of Calgary and Edmonton. Living side-by-side, their homes have become expressions of individuality, some painting their doors wild rose. They rely on public spaces as places for community: to meet, to market, to play, to celebrate, to laugh, and to learn. Parents watch their neighbours'kids play games of pick-up soccer in the street from the window as they prepare dinner. Localized economies are evolving in neighbourhoods, mostly based on bartering and skills sharing. When need be, they can appeal to the sharing economy. Small, independent shops and chains serve various neighbourhoods. The community bonds that are built are very tight and close; everyone knows their neighbours, and looks out for the disadvantaged who live in abandoned buildings in their

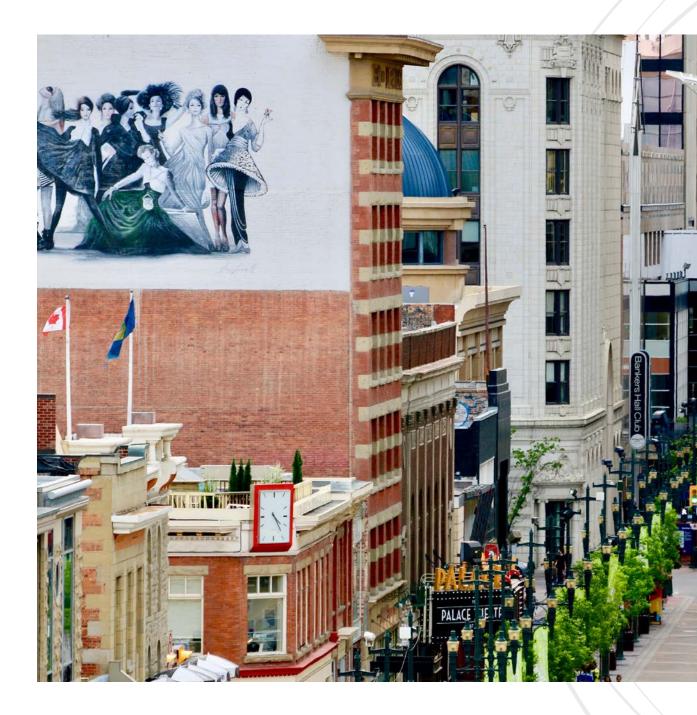
neighbourhoods. Co-op living expands beyond apartment buildings; the municipality has turned over entire neighbourhood management to community leaders.

Because of the low rent, large spaces, and close community, many performance and theatre artists have flocked to Edmonton, while Calgary has become a centre for design and visual art. This concentration of artists has given Alberta a reputation as Canada's hotbed of artistic innovation and achievement, with the Edmonton Fringe Festival now the largest free theatre festival in the world. The national broadcaster recently expanded their Edmonton office, and talks of opening a National School of Cinema has both Calgary and Edmonton as serious contenders.



Neighbourhoods in Calgary look to their community associations to govern their neighbourhoods, while community leagues in Edmonton perform that function. Each has created strong networks throughout their cities to lobby the municipal governments on city-wide issues. However, because the tax base has been reduced and equalization payments have been shrinking, public services at both municipal and provincial levels have been cut to the bone. Autonomous transit runs on the most critical routes (most people use bikes now, instead) while the Royal Canadian Mounted Police (RCMP) looks after all law enforcement in the region. Local infrastructure, though important to day-to-day life, has had years of "patch and repair" treatment as no one can afford major investments, creating a patchwork quilt of crumbling infrastructure around the region. The reason that coal plants are clean is that the federal government paid to reform them in order to meet their carbon emissions targets.

Edmonton and Calgary both actively compete within the province for funding, while the community associations and leagues of both cities have formed strong networks between them and are the ones investing time, skill, and sweat into urban spaces, converting many of them into community-led spaces in response to the particular needs of their neighbourhoods. For example, some are using municipal golf courses as shared community gardens to grow produce (since the majority of high-quality produce is either earmarked for export, or expensive). Others have used parkettes as rainwater collection fields, an innovation from Niitsitapiwater engineers. Since the little potable water that was not used for agriculture was contaminated by fertilizer runoff, many of the advisory committees are looking to Niitsitapi water engineers for guidance and inspiration on water infrastructure, filtration systems, and rainwater collection and processing, as well as other community issues that they are facing.



Timeline/Pervasive Events

2040

2033 2030

2025

trade agreement is signed, covering access to agriculture, tech, and potash.

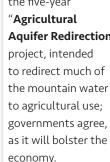
A Canada-China free



A small Albertan town defaults on its Green Bonds: investors hesitate to invest again in Albertan bonds.



2037



Edmonton approves suburban agriculture reclamation plans, and helps the remaining residents relocate into the city core. Calgary follows suit shortly thereafter, as do Red Deer and Wetaskiwin.



2045

The Western Exit (WEXIT) party, after admitting that they were wrong about oil and gas, now forms the official opposition in the provincial legislature based on a platform of "Prosperity for the People."

The last Albertan is vaccinated against COVID-19, launching a threeday celebration in Edmonton as the provincial government declares the economy fully reopened.



A startup in Ohio prototypes a hydrogen-based combustion motor which exceeds expectations.

* TURN *

IDEAS INTO

REALITY

Work begins on the five-year Aquifer Redirection"

Summary Table

Dimension	Driving Forces	Impact
Environment	Global mean temperature rising; beetle infestation leading to controlled forest fires; destabilized world food systems.	Warmer seasons; longer growing seasons; emergent agricultural sector.
Socio-Demographics & Behaviour	Mass exodus due to shrinking economy; work-from-home policies foster outward migration; WEXIT movement.	Population declines to 1.8M; remaining population of low mean SES; gig workand work hoursspike; affordablehousing in city centres;local governance; thriving arts.
Power, Influence & Concentration of Capital	Increasing value of agricultural land; neighbourhood associations and community leagues gain power.	Farmer and rancher buy-outsby foreign conglomerates; smaller towns as boutique tourist towns; community-led conversion of urban spaces into community spaces.
Innovation	Job automation; reformed coal plants reach carbon emission targets; Niitsitapi partnership on water infrastructure.	Increased seasonal gig work; longer working weeks; increased mental health challenges.
Economy & Finance	Collapse of oil & gas industry; new industries steer clear; emergence of agricultural sector in prairie lands; reduced tax base due to pop.	Corporate exodus; robust sharing economy; decreased public services; crumbling infrastructure; new localized skills-sharing economy.
Population Distribution	State-assisted relocation to city centres; population concentration in small tourist towns.	Increased sense of community; neighbourhood governance structures strengthen; flourishing art scene.

	Trends	Subtle Trends
TRENDS	Remote Work Precedent The New Gig Economy	Urban-Rural Division Sharing Economy
	Job Automation Wage Polarization	State-Assisted Relocation

Sharing is Caring

Limits and Discipline Scenario

Summary

Alberta has seen a slow and painful recovery to a smaller, diversified economy. Smart city tech facilitates more data-based decision-making, counter acting social disparities and increasing socio-economic mixing. Stricter government regulation is spearheaded by an empowered regional government.



Scenario

In 2050, Alberta's painful transition away from oil and gas as the primary economic driver is complete, and the benefits of a more diversified economy are beginning to be felt. While the economy extends to many different industries, the price tag was prolonged suffering; funding cuts, lean markets, and few jobs threw people into disarray. The economy is now smaller than it was in its heyday, but many hope that it is positioned for success. From old stalwarts like forestry and mining, to new industries like bio manufacturing and in-mind entertainment, the province has its fingers in many pies.

With roughly 2.7 million people in the region, long-term employees and gig workers mix for work and play. Gigging is part of the career cycle, from graduation until settling down (ages 22 to 36). Young people gig for anyone from anywhere; the flexibility allows them to explore the world and discover themselves without remaining tied to any one company. Remote working for full-timers is also encouraged, but digital supervision and strict performance metrics are enforced. Those that don't meet the algorithm's standards are marked for replacement. Stress and anxiety is prevalent, despite the mandatory 30-hour work week. Introduced as a means to reduce unemployment, people don't use it to relax or connect with their community; rather, they wonder if they're on the chopping block, and how they could be doing better.

Although jobs are spread across industries, the uptick in automation means many jobs now tend towards coding, creative work, or knowledge management. Indeed, elementary and high school curriculums focus on "high concepts" with classes on philosophy, ethics, and problem solving, with skills-based training provided by their parents'workplaces. People switch between jobs and industries often, so the mandatory employer-education hour ensures that children will have a diverse set of skills in a range of industries.

People have been confined to the cities, suburbs, and small towns, all easily accessible via the high-speed rail line between Edmonton and Calgary. The rural areas, like the timber forests, have been off limits, unless travelling on economic business. The intent was to let those industries have the space they needed to sustain the economy during the lean years, while trying to slow the destruction of nature and mitigate climate change.

Unfortunately, not even the reduction of fossil fuels could stop climate change; the cycle had already gone too far. When the permafrost thawed, releasing carbon into the air and feeding climate change, it released other, frozen particles as well. Some, proving to be ancient bacteria and mould spores, were carried back to Edmonton, the "gateway to the north," causing outbreaks along the high-speed corridor. However, the mobile pandemic response unit handled them. Some who remember the pandemic of 2020 fear pathogen exposure in public spaces. New public spaces are large enough for people to keep a safe distance between themselves and others, while older cultural institutions have begun loaningmany of their pieces for display in public places (courthouses, schools, etc.).

Frequent sudden flash storms, cold rains, and warm winds from the mountains caused fears of tornados and flooding, while severe summer droughts hurt the agricultural industry; the agricultural fields remain offlimits to urbanites and suburbanites in the hopes that they will eventually recover. Resources and food stores, depleted due to climate change, are rationed, as are utilities, like water and Internet. Despite this, climate refugees have come to settle in the area, increasing density in the urban centres. The diverse economy is attractive to many with varied credentials, while others can retrain at the local university office tower.



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The Region has begun to feel like home for the newcomers. Policies enactedyears ago ensures that people from all socioeconomic backgrounds live beside one another in every neighbourhood. Municipal "get to know your neighbour" programs facilitate street closures for neighbourhood barbecues and community park days for nearby residents. Because of this, events like little league baseball games and movies in the park have grown in importance; people come early to catch up and say their hellos, stands are filled with supportive neighbours, and people stay long after, making plans to help one another repair squeaky doors, or mow lawns.

Any building flooded as a result of climate change can be "bought back" by the government and torn down and converted into green space. Public services in flood plains have been relocated to high-rise towers, in one instance combining an elementary school, a university, and a museum in a single tower.

The resultant green space serves as stormwater management, preventing flooding for those who remain in the downtown. These massive green spaces (known as "The Palms") extend, like fingers, across the Region. The goal was a five-minute walk to public green space from anywhere. Once obsolete street infrastructure was converted to green space, the goal was reached. The Region boasts the largest

urban park in the world, which has become a major tourist attraction; fingers crossed it doesn't rain.

While this has increased urban density, suburban sprawl is also prevalent. Now that the Calgary-Edmonton Corridor (CEC) is governed by the Regional Government Board (RGB -or, "The Region"), anyone within it can access the same services. While some choose to live in the urban centres, others choose to live further away. However, any new developments are assessed as whole communities; all new construction, from single-building to suburb, requires a full community impact survey and assessment. Developers find this delay frustrating and have lobbied for changes, but with a bureaucracy as large as the RGB, any change will take time.

The RGB is responsible for all municipal affairs in the CEC. Formed by the merger of the Edmonton Metropolitan Region Board and the Calgary Metropolitan Region Board, the RGB receives no funding from the province; rather, they collect property taxes and the 1.5% Municipal Sales Tax. Still, it is not enough to administer public services, and some non-essential programs have had to be scaled-back or cancelled altogether. A cost-saving mentality drives decision making, especially as the first set of green bonds come due.

Luckily, those green bonds fundedthe installation and standardization of Smart City Technology throughout the Region. Logistically complex, it was completed in 2035. The data hub, located in the centre of the Region, receives millions of data points from sensors, Internet traffic, and other data sources, for a city-management AI that deals with service delivery, resource allocation, and program reduction. Everything from public transit routes, library programming, council composition, Internet traffic, to water fountain pressure are controlled centrally via the algorithm.

While the algorithm was intended to act neutrally, many complain about bias. While city management and government decisions are often not transparent, many admit that they have been well looked after by the government. However, dissent has been rising. Online and in-person protests for data transparency and privacy rights are a regular occurrence, with a dedicated group of hacktivists trying to pierce the firewall and adjust the AI to be "more fair." Years of resource rationing and movement restrictions has made people angry and on edge. To ensure a critical mass of goods in the sharing economy, participation is mandatory for wealthier people, as is meeting an electricity generation quota. Colloquially known as "take a volt, leave a volt," if property value is over a certain amount, you're expected to generate enough electricity to return some to the public grid. If homes don't meet their quotas, a penalty is debited from their accounts. Internet access is rationed as well, with the critical business and municipal functions, outweighing personal use. Rolling blackouts mean that shopping, streaming, and connecting have to be done during rolling windows; dinnertime arguments commonly erupt in families over who and what takes priority: a virtual connection with a new crush, file transfers to the family attorney, or sale shopping online for new winter clothes.

Some protest the power of the RGB; as it has over 76% of the provincial population, the provincial government deferstotheir authority. The middle classes whisper now and then, but are resigned to the sacrifices they have to make for economic prosperity. Others fear that they'll be overheard by a Smart City Sensor or their Internet traffic will be seen and they'll have their water cut, or be handed a municipal summons. Some consider moving away. Many of the disadvantaged, looked after and cared for, don't think it's worth getting upset over.

Timeline/Pervasive Events

2042

2039

2025

2023

The province forms a "Pandemic Response **Unit**" to assist in slowing the spread of COVID-19 while waiting for a vaccine. It operates effectively enough to slow provincial outbreaks to a trickle within three years, when an effective treatment is found.

PANDEMIC #COVID19

Due to provincial austerity measures, the Edmonton Metropolitan Region Board (EMRB) and Calgary Metropolitan Region Board (CMRB) are merged to create a single governing board. The province transfers to the municipalities the ability to levy its own sales tax, while removing all funding and grant programs tied to municipal services or infrastructure.

On the 145th anniversary of the Calgary and **Edmonton Railway** (C&E), the high-speed rail corridor between the two cities opens; the first train takes 45 minutes to get from one city to the other.

2036





The fourth straight year of summer drought shatters agricultural yields in Alberta; travel restrictions extended to farming areas to hopefully enable recovery, while imported food is rationed in the Region.

A water shortage in the poorest neighbourhoods in the Region is caused by pool filling by the wealthy; protests erupt alleging "algorithmic bias" in the municipal resource-allocation algorithm.





2048

The Palm" wins the **North American** Planning Institute's "Urban Space of the Year" award, while OutdoorsAnd Lovinglt.com urges readers to "escape to this urban forest in the middle of a chilly city."

Sharing is Caring - Timeline/Pervasive Events

Summary Table

Dimension	Driving Forces	Impact
Environment	Climate overshot; permafrost thawing; ancient bacteria and mould spores released; frequent cataclysmic weather events.	Fear of pathogens; development of Pandemic Response Unit; disruption of agriculture industry; banned rural access.
Socio-Demographics & Behaviour	Region of 2.7M people; long-term and gig workers; climate refugees; socioeconomic mixing.	Wanderlust; job loss anxiety; child & youth curriculums focus on high concepts; skill-based trainings by corporations.
Power, Influence & Concentration of Capital	Megacity decision-making and sales tax transfer; government data ownership; largecorporations/employers.	Socio-economic mixing; concerns about AI bias, and those who fear it; lower SES needs met; strict performance metrics.
Innovation	Job automation; wide-spread implementation of SmartCity technology; algorithmic resource allocation.	Digital supervision;30-hour work weeks;jobs in coding, creative work, knowledge management;"take a volt, leave a volt."
Economy & Finance	Transition from O & G complete; small diversified economy; thriving new industries (bio-manufacturing, in-mind VR); government austerity; green bonds.	Prolonged suffering through economic shift; funding cuts; lean markets; few available jobs; attractive to people with varied credentials.
Population Distribution	Banned rural dwellings; increased urban density and sprawl; government buy-back program to re-green crumbling built form.	Five-minute walk to green space across the region; improved storm water management in urban areas.

	Trends	Subtle Trends
TRENDS	Empowered Megacities Socio-Economic Mixing	Education 4.0 Data Ownership Tensions
	Smart City Testing Move to Green Infrastructure	

Tourism on Steer-oids

Transformation Scenario

Summary

Investment in green energy and infrastructure has allowed Alberta to decouple it's economy from the oil and gas sector and attract industries and a growing class of mobile, remote workers known as Touchdowners. While Touchdowners enjoy high quality services and amenities in the downtown core, service workers and climate refugees are pushed out to the less desirable suburbs.



Scenario

In 2050, the Alberta service economy is booming. While decoupling the economy from the oil and gas industry was painful, heavy investments in green energy and infrastructure, environmental clean-up, and construction and conversion of public spaces and amenities kept people employed. However, it was the classification of the Internet as a public utility, along with investment in satellite coverage and cell phone towers, that enabled ultra-high speed Internet coverage throughout the province, fueling Alberta its competitive advantage and reforming its economic focus. The provincial slogan "Home Away from Home" reaffirms the province's place as an attractive touch pad for workers from many different locations and industries who gained mobility because of remote-working policies, are attracted to the province's natural beauty and temperate summer climes.

Since most major companies measure work performance by impact, not hours worked, many workers don't even hit the 30-hour week maximum. These high-income earners with much leisure time have become permanent tourists in Alberta: they work, live and explore. As more members of this new creative class, from Instagram influencers to design strategists, found their way to the region, companies soon followed

Cities are bustling; boutique showrooms, unique restaurants, Friendship Centres and Healing Lodges, and live entertainment keep the downtown core vibrant, while the Touchdowners (as these new residents are known), craving an urban experience, live in the condos and townhouses near the downtown cores. They are diverse and dynamic, matching their companies. Each neighbourhood has a unique feel, is driven by a localized service and entertainment economy, and elects their own representative to their municipal council, yielding a council filled with members from many different, underserved and under-represented communities. Accessible and inclusive

spaces have been created where multi-generational groups can spend time and money; utilities and water treatment is decentralized to the neighbourhood level. Touchdowners are happy renting homes and sharing cars; conspicuous displays of wealth don't matter. Rather, it's the luxury experiences that drive their appetites; their hashtag is #DoNewFeelNew.

With a population of 3.8 million, the Calgary-Edmonton Corridor (CEC) is by far the largest Touchdown touch pad in Canada. The CEC's proximity to mountains and glaciers, fewer natural disasters, and large amounts of outdoor space provide wonderful, natural experiences. Public helipads offering quick autonomous heli-rides to the artistic Banff enclave, the challenging Arctic adventures, the deep relaxation of deep forest spas, or the Oil Sands National Historic Site run almost continuously.

The only issue is that winters are growing harsher by the year, with wild wind storms and record-breaking snow falls. The vibrant Edmonton Pedway has expanded to not only connect to 90% of the buildings in the downtown core, and is now lined with retail showrooms, library drop offs, virtual vacations, simulated sunshine, and high-end boutique restaurants. Winter adventurers also enjoy the challenge afforded by the landscape, while climate-control resorts in the north, offering a full-year summertime experience, help alleviate the pallor of the winter months.

Other effects of climate change were milder in the region than expected, resulting in temperate summers. As such, the CEC was first to capitalize on attracting the mobile Touchdowner market, recognizing that, while all cities and municipalities remain distinct (and can therefore define their own special brand), the area wouldbe more successful if it was sold as a region, rather than individually. As such,

committees with representation from most municipalities were established to harmonize services, policies, and regulations, from the form of the water bill to public transit, to ensure a smooth and seamless experience for the Touchdowners no matter where they are in the area.

However, the area is now facing fierce international competition. As such, most government decisions are driven by what will make the region more attractive to Touchdowners while keeping those already here interested in staying. Infrastructure is constantly being refreshed and upgraded, while public services and spaces are extended and built. Children make friends when they attend real-life schools in office towers where they share space with universities, museums, and theatres, in the hopes that it will make families less likely to leave. Heavy subsidy of popular art, from comedy to circus to musical theatre, ensures there's always something new to watch on the city's many stages. Carbon neutrality and other socially-progressive values that Touchdowners identify with find themselves reflected in government policy and infrastructure prioritization.

With so much importance on infrastructure activity, dataledsocial criteria has replaced financial criteria as the drivers for projects. With so much infrastructure being funded, developers hope to remain relevant and attract people to their developments, creating an odd patchwork of private infrastructure projects. Many of these developments, like the Sandstone Valley Amusement Park, or the Cochrane Water Park, compete for users.

"Office hives" dot the border between urban and suburban. This shared office space allows people to use conference rooms, printers, and notary services all in one place. While never booming, it's there for those who need structure, space, and who want a social alternative to working from home or Starbucks.

With urban living so chic and posh, those who provide services and build the infrastructure cannot afford to live in the downtown. While some service workers, entertainers, and other gig workers take rooms in crumbling tenement buildings or illegal boarding houses, the majority live in the less desirable suburbs, along with climate refugees. Local pubs in the suburbs are often full after two in the morning, as the gig workers, entertainers, and service workers return fromtheir late-night jobs, and spend time relaxingaway from the Touchdowners. With their credentials unrecognized, climate refugees seek non-unionized gig labour. Gig unions have been reticent lately to push for change to working conditions, fearful of companies permanently switching to non-union labour.

With the focus on infrastructure for Touchdowns, the suburbs have been minimally serviced. Free autonomous public transit has been the excuse ("Everything's within reach, if you hop on a bus"). Resentment has been building amongst those who question if this new direction was the best way forward. However, some of the initiatives meant to enhance the area for Touchdowners do undoubtedly improve life for the suburbanites. Notably, as transparency in government and data was considered a key consideration for many in determining a new place to live, smart city sensors were made some of the first infrastructure improvements, with any and all smartcity data made available to the public. Since government AI use has been highly regulated, app development and private optimization algorithms have helped make sense of the data, providing citizens and decision makers alike with insights and understanding.

Following the second Missing and Murdered Indigenous Women and Girls (MMIWG) inquiry, there was a further upswell of support for reconciliation and decolonization. Municipal governments began to meaningfully include indigenous knowledge in government, governing alongside tribal bands, the Metis, and non-status peoples on issues ranging from resource and environment management,

curriculum creation, and leadership. Through negotiation, space within the downtown was developed to enable spaces of gathering and exchange.

The provincial government has taken on all forms of tax collecting, from property to sales, parsing out funds to municipalities as necessary. The small towns that house resorts and spas need tax income to keep their infrastructure appealing as much as the big cities; the entire province is one large tax base. However, the green bonds issued for the first round of infrastructure development years ago are coming due in a few years. With so much spending needed to keep the region competitive, some are beginning to wonder if the province is headed for a new financial crisis.and miss the structure and routine that work brought to their day-to-day lives. The mental health crisis takes on a new face as people struggle to redefine their sense of self and find meaning in their lives.



Timeline/Pervasive Events

2042

2037

2034

2022

As a COVID-19 vaccine is released, public support for "Foodies United," the first gig worker union, runs high. This allows them to negotiate successfully with food service apps, ensuring that the major apps and restaurants will no longer deduct service or payment fees from tips made through apps.





With Alberta's financial support, the successful launch of Facebook's earth orbiting satellite, brings **14G Internet coverage** to all of Alberta.

A visiting dignitary is swarmed by police when a national security persontracking AI algorithm, fed by security camera information, incorrectly identifies her as a threat. This strains a major trading relationship, and government reliance on AIs is heavily restricted and regulated





2040

Skeets, the Edmonton nightspot, is ranked one of the top 5 nightclubs in the world; a high-profile reality TV celebrity is spotted in the arms of young foreign royalty in the VIP room.

Canada accepts 200,000 climate refugees from Ghana, Chile, Turkey, and Thailand.



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2049

Alberta's green bonds fall invalue on the bond market as many speculators believe that a default is possible.

Tourism on Steer-oids - Timeline/Pervasive Events

Summary Table

Dimension	Driving Forces	Impact	
Environment	Regional climate impacts milder than expected;	Temperate summers and outdoor winter activities attract Touchdowners;	
Socio-Demographics & Behaviour	Region of 3.8M people; remote working precedent; support for reconciliation and decolonization;	High standard of livingin downtown; remote work options attract new comers; more leisure time creates high-income perma-tourists called "Touchdowners."	
Power, Influence & Concentration of Capital	Touchdowners; privately developed optimization algorithms; provincial control of tax base.	Decisions made exclusivelyto attract Touchdowner tourist base; growing unrest among year-round low-income residents	
Innovation	Classification of internet as public utility; legislation stipulating workforce performance by impact rather than hours.	Competitive advantage through high-speed internet; much more free time among working elite; emergence of Touchdowners.	
Economy & Finance	Booming service economy; heavy investment in tourism and green infrastructure; data-driven decision-making; province is one large tax base; green bonds.	Private developers compete for new infrastructure users; heavy spending to keep region competitive; fear of financial crisis; all decisions focus on Touchdowners.	
Population Distribution	Attracts Touchdowners from nation & globe; dense Touchdowner settlements in urban centres; non-wealthy and climate refugees live in under-resourced suburbs.	Vibrant downtown core; neighbourhoods driven by localized tourist services; office towers repurposed as co-working hubs in downtown core; free autonomous transit.	

	Trends	Subtle Trends
TRENDS	Smart City Testing Move to Green Infrastructure Remote Work Precedent Urban Densification	Increase in Taxation Needs Digital Divide Climate Migration





FUTURE CITIES

