

PORT SCO

A PORT METRO VANCOUVER INITIATIVE



PORT METRO
vancouver

How do you plan for the long term in a rapidly changing and uncertain world?

This question highlights a major challenge for large organizations the world over, from corporations to governments, who have to make large bets on the future.



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PRESIDENT'S MESSAGE

"The best way to predict the future is to invent it."

Alan Kay **AMERICAN COMPUTER SCIENTIST**

In 1970, Port Metro Vancouver handled approximately 27 million metric tonnes of cargo and the population of Canada was 21 million people.

Forty years later, in 2010, we handled more than 118 million metric tonnes of cargo while Canada's population was 34.3 million. In those 40 years, the Canadian population increased by more than 60 per cent and the total cargo volume at the Port more than quadrupled.

Canada is a trading nation, and our Port grows in response to the needs of individuals and the economy. In the simplest terms, our population growth drives international trade.

As we think about our growth strategy going forward, we asked ourselves: What will Port Metro Vancouver look like in 20 years? In 40 years? And what does sustainable growth for the Gateway and its stakeholders look like?

To help us answer these complex questions about an unknown future, we turned to scenario planning. Scenario planning is a tool that allows us to have an ongoing strategic conversation about the emerging future. It allows organizations — like Port Metro Vancouver — to make better decisions about our future today, while remaining open to big shifts in the business environment.

The purpose was not to identify future events, but to highlight significant forces that can push our future in different directions. It was about making these forces clear, so that if they do happen, we will recognize them and be prepared to act.

A great deal of thought and collaboration has gone into the Port 2050 initiative. In this report, we are pleased to present the results of the process and the four scenarios that were produced by Gateway stakeholders.

The outcomes cover a diverse range of perspectives. We hope you find the scenarios to be provocative and challenging, in a positive way. We have not shied away from the negative possibilities; rather, we see these as opportunities to inform our planning going forward.

Reflecting on the scenarios further, there are two we don't see as desirable for us as a Port and a Gateway. A third reflects where we believe we are heading in the short to medium term, and the fourth is the direction we think our industry — and the world — could be heading in the longer term. We have labelled these last two scenarios our Anticipated Future.

By making comprehensive decisions today that will lead to lasting success in our Anticipated Future, our industry can lead a major change in thinking and act to deliver sustainable growth. We must deliver growth not only in key infrastructure, but in the way we understand and operate the entire supply chain and in the way we share the impacts and benefits of trade.

We believe the year 2050 looks bright for Port Metro Vancouver, our stakeholders and the communities we serve. We are building our plans to be ready for, and to understand and thrive in, the future ahead of us. It will take hard work, relentless collaboration and commitment to see it fulfilled. We see this already happening on Canada's West Coast, every day.

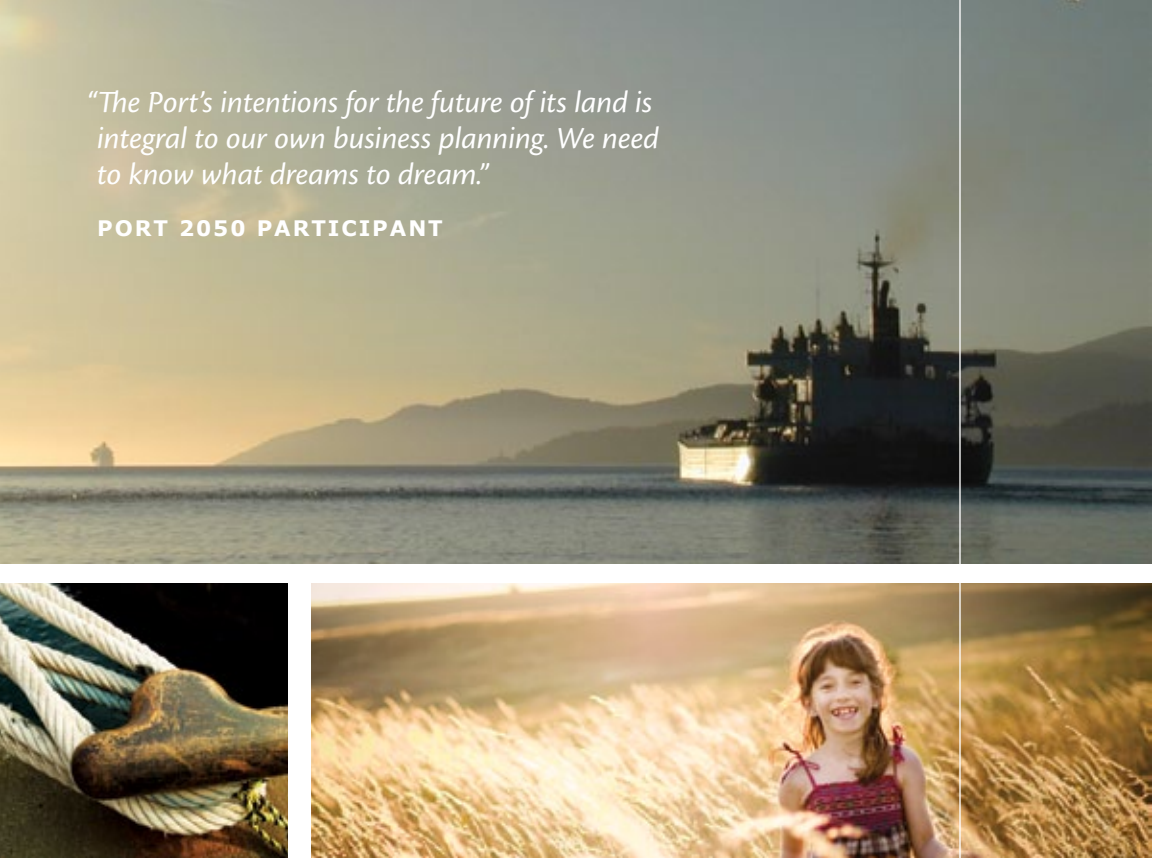
We hope you will continue along this path with us.

A handwritten signature in black ink, appearing to read "Robin M. Silvester".

Robin Silvester
President and Chief Executive Officer

"The Port's intentions for the future of its land is integral to our own business planning. We need to know what dreams to dream."

PORT 2050 PARTICIPANT



ABOUT PORT 2050

In 2010, Port Metro Vancouver embarked on a strategic visioning process called Port 2050. Our goal was to engage representative parties with a stake in the future of the Gateway to create a strategic vision for our shared future by exploring the answers to two key questions:

What is good growth for the Gateway and its stakeholders?

What will the Port look like in the next 20 and 40 years?

Our objectives were threefold:

- To deepen our collective knowledge by co-developing long-range strategic insight and foresight.
- To build adaptive capabilities through the creation of long-range strategic visioning tools and leadership skills.
- To support the co-creation of a better future for the Gateway through effective engagement and collaboration.

Through the Port 2050 process, four scenarios for the future of the Port and the Gateway emerged, which we have named "The Great Transition," "Rising Tide," "Missed the Boat" and "Local Fortress."

These scenarios are designed to help us think about the future and the alternative ways it may develop. They are challenging, feasible and all describe some inevitable changes to the way we — and our industry partners — do business.

THE PORT 2050 PROCESS

With the initial mandate from our board of directors, the Port 2050 process began in earnest in the Fall of 2010.

By design, Port 2050 aimed to engage a representative mix of port stakeholders in a frank and collaborative discussion about the future of the Port and the Gateway. Throughout the process, more than 100 people — leaders from our terminal operators and tenants, railways, industry organizations, government agencies, municipalities, community liaison groups and First Nations — participated in the process with our board members, executive team and employees.

To lead us through this complex process, we retained the services of Adaptive Edge, a consultancy that specializes in strategic foresight and futures thinking. With their guidance, we developed a timeline that would emphasize the interconnected nature of our goals and would allow us to explore topics that could shape our shared future.

This approach sought to capture the knowledge, interests and aspirations of our industry stakeholders and community partners. We emerged from the process with a greater understanding of a diverse range of perspectives, enabling us to gain the strategic insight we needed.

EXPERT PANEL SERIES

To launch the Port 2050 process, participants were invited to a series of panel discussions held over three days in October 2010. Panelists were selected on their ability to inform our future thinking and spanned a diverse range of disciplines — some industry-specific, while others represented broader macro trends likely to shape the business environment. Each panel was organized around a particular theme: global maritime operations and investments; Gateway sustainability; Gateway competitiveness; our social landscape; and sustainable and efficient freight mobility.

STAKEHOLDER DIALOGUES

Throughout the following month, we held smaller group conversations with our participants. While the panel series illuminated future trends, these stakeholder dialogues focused on listening to the unique perspectives of our participants about the current and future Gateway-related issues that directly impact their businesses, their livelihoods and the livability of their communities. Each conversation included a cross-section of participants to encourage differing and sometimes conflicting perspectives. A rich discourse ensued and the key themes and issues that emerged throughout those conversations were captured.

SCENARIO BUILDING WORKSHOP

Following the panel discussions and the small group conversations, more than 100 participants joined Port Metro Vancouver directors and employees at a scenario building workshop, held in February 2011. The workshop was designed to challenge participants to think ambitiously about the future of Port Metro Vancouver and the Gateway.



WHY SCENARIO PLANNING?

To help us proactively create the future we want by thinking in terms of multiple possibilities.

To encourage us to imagine what might happen if our expectations for the future do not come true.

To strive for innovation and creativity by requiring that we think farther out into the future than we normally take the time to do.

Using a highly participatory process over the two-day workshop, the group developed four preliminary scenarios on the future of the Port, the Gateway and our collective business environment. Each of these scenarios was enriched by the wide range of perspectives, knowledge and aspirations brought to the exercise.

Following the workshop, the Port 2050 team further refined the preliminary scenarios with additional research, in-depth analysis and a series of internal workshops to test the plausibility of scenario details and identify their strategic implications. The final scenarios that emerged contain the essential elements identified in the preliminary scenarios, which were further developed. The result is four very different and plausible visions of the future, which will be described more fully in the following pages.

ABOUT SCENARIO PLANNING

Over the last 40 years, scenario planning has emerged as a leading strategic tool, a proven way to make flexible long-term plans and manage uncertainties.

Scenario planning helps us proactively create the future we want by thinking in terms of multiple possibilities and by plotting a course between prediction and paralysis. It is also a critical tool to improve our decisions in the present, because it helps us expand our perspective, identify new opportunities and adjust our strategies on an ongoing basis.

It is important to remember that scenarios are not predictions. Rather, they are alternative stories of the future; they depict how current events and trends could play out over time. Scenarios describe a range of possibilities that

incorporate both the expected and unexpected, as well as conventional and unconventional thinking.

In order for them to be useful, scenarios must be plausible, relevant and challenging; they also need to differ from one another and cover the range of possibilities that we could face as a port and a Gateway.

The building blocks of scenarios are known as key drivers of change, which represent important trends, forecasts and uncertainties facing the Gateway. Many drivers of change were identified throughout the Port 2050 process and the final characterizations were agreed upon at the final scenario-building workshop. Participants ranked these driving forces and future factors on levels of both importance and uncertainty. The intersection of these critical issues forms the basis for the Port 2050 scenarios.

CAPACITY TO GROW

How will pressures from population growth, climate change, or unforeseen factors affect the Gateway? How will competing views on industrial, residential and agricultural land use be resolved? Will the Port maintain, strengthen or lose its social license to operate?

DEMOGRAPHICS AND SHIFTING SOCIAL VALUES

What global population shifts will happen — driven by demographics, migration, or other forces? How will these shifts impact goods production and consumption? How will the regional population evolve? How will social views of globalization and trade evolve? How will local views of the Port evolve?

ENERGY TRANSITION

When will the world reach “peak oil”? What will the implications be for global goods transport? Will higher energy prices dominate? What alternatives to hydrocarbons will develop, and how quickly?

GATEWAY COMPETITIVENESS

How attractive will the Gateway be for business, labour, investors and trade? How productive will the Gateway’s labour force be? Will Gateway actors share a common strategy?

GEOPOLITICAL STABILITY


How will the rise of new political economic actors, shifting balances of power and the relative fortunes of the US and Canada affect the Gateway? In what arenas will Asia dominate? How volatile will the geopolitical environment be?

PATTERNS OF PRODUCTION AND CONSUMPTION

How will trade patterns shift through 2050? How will changing locations of consumers and goods producers impact trade flows? How will demand for key Gateway commodities shift over time?

TECHNOLOGICAL INNOVATION

How will technology improve goods movement and handling? How large will ships get? What new transport technologies will emerge? What innovations could disrupt the transportation and logistics industries?



"A port isn't just a local thing. It brings the world to you and you take things to the world. So it requires a global perspective."

PORT 2050 PARTICIPANT

THE SCENARIOS

In order to challenge our thinking and build divergent scenarios, we developed a matrix by crossing two axes, delineating four separate future environments. These two axes represent the most important and most uncertain drivers of change, allowing our scenarios to be as rich as possible and include multiple trends and possibilities.

HORIZONTAL AXIS: GLOBAL PROSPERITY MODEL

The Global Prosperity Model axis describes patterns around globalization, macroeconomics and energy, and is fundamentally about the nature of demand.

On the far left of the axis, the current economic growth-driven model remains dominant. This assumes a continuation of our current system, including globalization, traditional economic measures of GDP and growth, and the predominant use of hydrocarbon-based energy. While significant changes do happen, there is no paradigm shift in scenarios on the left side of the axis.

On the far right, an alternative prosperity model emerges. This assumes a fundamental change in the nature of globalization, economic growth and definitions around prosperity that assign greater importance to values such as environmental quality and human well-being. Within this axis, we also include the transition to a post-carbon economy as well as a demographic and social transformation that could emerge from a new generation of leadership.

VERTICAL AXIS: THE CAPACITY OF THE GATEWAY

The Capacity of Gateway axis incorporates issues of competitiveness, infrastructure, land use, social license, talent, local economic strength and collaboration between port stakeholders. Fundamentally, this axis is about the nature of supply. It encompasses Port Metro Vancouver, but is about the Gateway and region more broadly.

At the bottom of this axis, we find capacity constrained and/or decreasing. In scenarios on this side of the axis, the Gateway as a whole is challenged by any number of factors — both internal and external — that limit its ability to adapt, grow and be successful.

At the top of the axis, capacity is adaptive and/or increasing, meaning the Gateway is able to respond, adapt, cooperate and thrive in changing circumstances.

ABOUT OUR SCENARIOS

On the pages that follow, we share with you the four scenarios that were developed through the Port 2050 process. They are written in a narrative format, to encourage us to imagine our world 40 years from now. When reading them, it is important to focus not on whether you agree with or like the scenarios, but to consider whether they make us more prepared for the risks and opportunities ahead.

These are by no means exhaustive outlooks. And while no single scenario is likely to accurately reflect how the future will unfold, they are useful tools to help us imagine the potential implications of the decisions we make today by testing them in a range of possible futures.

Adaptive/
Increasing



RISING TIDE

This is a scenario of continued growth, but in a context of increased volatility due to resource conflicts and climate instabilities.



THE GREAT TRANSITION

This is a scenario where we see a paradigm shift— a rapid transition to a post-industrial/ post-carbon model.

CAPACITY OF THE GATEWAY

Economic Growth-
Driven Model
Remains Dominant

GLOBAL PROSPERITY MODEL

Alternative
Prosperity
Model Emerges



MISSED THE BOAT

This is a scenario where emerging market growth is strong, but the Gateway misses key opportunities and doesn't live up to expectations, due to problems with supply chain issues, poor coordination, lack of community buy-in and diminishing industry support.



LOCAL FORTRESS

This is a scenario where Gateway growth is constrained because the Lower Mainland focuses on the regional economy, local resiliency and well-being.

Constrained/
Decreasing

Thick Line = Growth of Broader Economy
Thin Line = Growth of the Gateway



This is a scenario where Gateway growth is constrained because the Lower Mainland focuses on the regional economy, local resiliency and well-being.

A 'local fortress' emerges as a reaction to additional global economic crises and a slowdown in Asian growth, which in turn depresses and changes consumption patterns worldwide. Gateway activity is downsized, but still services cottage industries. Short-sea shipping does well with a regional, West Coast focus. In the end, the region's early choices to become a "lifestyle region" come back to haunt it, as its vitality and hopes of being a global hub diminish over time.

WORLD CONTEXT 2010-2030: MIDDLE CLASS HOLLOWING

It seems like the global economic crisis of 2008 never really ended. Although recoveries occur, waves of multiple economic crises continue, never really allowing the Canadian middle class to rebound. Domestically, Canada witnesses a real estate bubble bursting as Baby Boomers start to downsize and off-load their homes in the suburbs. Then, around 2020, economic growth in emerging markets slows due to a range of challenges, including environmental and political. While major economies such as China are far from collapsing, it is clear that decades of breakneck growth are taking their toll.

These economic slowdowns impact global consumption patterns, with people in developed countries increasingly doing more with less, or buying smarter. In fact, the word "consumer" is used less and less, a sign of the times.

This back-to-basics ethos isn't all doom and gloom, however. Business does well in non-traditional sectors: spirituality, health and well-being, community (virtual and physical) and learning. In a 2020 survey, most people report being no more or less happy than they were in the previous decade. Meanwhile, the wealthiest segments of society continue to lead a highly material lifestyle; consumption in luxury goods show no signs of abating. However, the overall economic slowdown has its advantages as it takes pressure off the environment.

GATEWAY CONTEXT 2010-2030: REGIONALIZATION OF TRADE AND MINDSETS

Within this economic climate, the benefits of globalization are being called into question. Local politicians argue persuasively that the region would be less vulnerable and more resilient if it focuses on local manufacturing, food production and cottage industries. With fewer household dollars to spend, most people agree.

Over time, the industry is forced to downsize and relocate activities outside of the Inner Harbour of Burrard Inlet. The silver lining is that the Fraser River is still active given the rise of cottage industries. In fact, while policies become more protectionist and mindsets are more insular, trade flows more regionally, which in turn boosts coastal shipping.

WORLD CONTEXT 2030-2050: TECHNOLOGY CHANGES THE GAME

Just as the economy recovers in the middle of this scenario, a technological game-changer reinforces the shift to more local production.

A computer fabrication process known as 3D printing emerges, allowing for the local production of many goods using sophisticated equipment and software. This technology can produce almost everything from watches to shoes to basic electronics — consumer goods that previously had been imported.

Over the decades, 3D printing becomes quite a reliable method for creating a whole range of goods and products. This, in turn, disrupts entire global supply chains, which reinforces the localization of manufacturing even further. Trade volumes diminish as supply chains simplify to move smaller quantities of raw materials to local facilities adjacent to retail locations. Moving semi-finished components and packaged goods becomes a thing of the past.

GATEWAY CONTEXT 2030-2050: BEWARE OF UNINTENDED CONSEQUENCES

Toward the end of this scenario, the Lower Mainland looks very different than it did in 2011. In many areas, including Burrard Inlet, waterfront industry has given way to residential uses and tourism amenities. Some people view this transition as a positive outcome. For those who can afford it, the Lower Mainland is still a pleasant place to live and visit. But something important has been lost in this urban experiment. The region has become a lifestyle bubble for many; a place to retire and retreat.

While ethnically still diverse, the region is paradoxically less global, more inwardly focused and less tolerant of different worldviews. Looking back, that creative tension between business and community was an important source of balance and vitality in the region. By pushing major industry outside of the Lower Mainland, the area lost some of its character, vibrancy and its sense of authenticity.



MISSED
THE BOAT

This is a scenario where emerging market growth is strong, but the Gateway misses key opportunities and doesn't live up to expectations, due to problems with supply chain issues, poor coordination, lack of community buy-in and diminishing industry support.

Competitiveness worsens. Meanwhile, a game-changer emerges: trade patterns shift to favour more south-to-south routes, which over 40 years affects the entire West Coast. Climate change is still an issue, but is mitigated in part due to technological innovation.

WORLD CONTEXT 2010-2030: BRICS RISING

This is a world in which emerging markets drive global growth and reap the lion's share of the benefits. The current prosperity model is delivering the economic goods, proving resilient and the best route to global stability and raising standards of living.

New energy technologies and sustainable supply chain efficiencies help mitigate the impact of this growth on the environment, though deteriorating environmental quality continues to be a concern — something the world would have to deal with later.

Things look promising in the early years. The economy picks up as the Emerging World — China, India, Brazil and even parts of Africa — grow rapidly. This is déjà vu all over again. In the same way as the Asian Tiger economies rose up in the late 20th century, this growth creates a virtuous cycle of greater prosperity, stability and social progress in these countries. Even concerns about a growing global population are mitigated as increasing prosperity puts a damper on birth rates. So the handwringing about the end of capitalism, which loomed large during the dark years of 2007-2010, dissipated faster than a monsoon rain. Even Dubai makes it back in the headlines again, trying to reclaim its position as the Miracle in the Desert. Indeed, Dubai's advantage is its close proximity to billions of middle class consumers. And geopolitically, it becomes clear that the centre of gravity is shifting to that part of the world.

GATEWAY CONTEXT 2010-2030: HANDS TIED

Despite these favourable global conditions, the Gateway falls well short of hopes and expectations. The reasons are both internal and external. On the one hand, it's unable to overcome key challenges, from labour issues to corridor and supply chain inefficiencies, losing out to other competitors both north and south. Community support for continued port activity wanes because of ongoing operational impacts, and a poor understanding of the Gateway's value. More surprisingly, industry support also falls away given all of the Gateway's challenges, preferring to operate in other trade routes.

In these early years, the Gateway has a hard time making a compelling case against community and industry concerns, as it receives the bulk of blame for the chronic gridlock in the Lower Mainland. To be fair, the increasing traffic is largely a result of more cars on the road from a growing population fuelled by an increase in immigration. But what people notice the most is the increase of trucks. As residents become increasingly vocal in their opposition to port activity, even the pro-industry groups find themselves backing away from advocating Gateway expansion.

With all these things going on, it is increasingly hard to attract qualified people to the industry and the Gateway in particular. So just when the Gateway needs world-class employees to take it to the next level, this talent is going elsewhere.

WORLD CONTEXT 2030-2050: HEADING SOUTH

Towards the end of this scenario, these concerns become trivial, as it appears a sustained drop in West Coast port activity is occurring. While everyone focuses on local competition, a structure shift in trade patterns towards the southern hemisphere begins to take place. This trend makes sense given the new geography of global demand and supply, with Africa being a rising low-cost manufacturing centre, taken together with other places like Vietnam, China and India having strong local consumption. As the focus of global manufacturing shifts from East Asia to South Asia and South-East Asia, trade volumes through the Suez Canal to eastern North America boom at the expense of Pacific trade and West Coast ports.

GATEWAY CONTEXT 2030-2050: MISSED THE BOAT

By the end of this scenario, not only does the Gateway miss the boat early, but also the boats increasingly choose to take a miss on the Lower Mainland, with other cheaper and closer options nearer to key markets. Could the Gateway have hedged and anticipated these shifts, if it wasn't so preoccupied with local challenges? Maybe, maybe not. This was no longer a relevant conversation. The future had moved on.



This is a scenario of continued growth, but in a context of increased volatility due to resource conflicts and climate instabilities.

Canada prospers, because its resources are in high demand and Canada's global brand is strong. However, the Gateway struggles to adapt at first, lacking nimbleness and scalability. After building the right capacities and relationships, the Gateway positions itself as resourceful and reliable. At the end, despite the turbulence, trade increases, but climate change remains a serious challenge.

WORLD CONTEXT 2010-2030: THE RISE OF RESOURCE WARS

At first glance, this is the most familiar and desirable world, the future that the Gateway anticipates with current trends continuing — from the rise of the emerging markets, greater globalization and growth.

But when played out, these forces are far from incremental or business as usual. Rather, in this scenario we see how they drive a period of volatility. Two things drive this turbulence: first the transition to a multi-polar world, with emerging markets increasingly at odds with each other and the West; second, a series of "resource wars" over key commodities in several hot spots around the world.

Global resources scarcity is largely due to rapid growth out-stripping supply, combined with failed ecological management, especially in emerging markets. This situation is exacerbated by climate change, which gathers momentum during this scenario and is no longer in dispute. So while global growth is also creating a "rising tide" for the bottom of the economic paradigm, we are also seeing visible increases in water levels around the world, which only adds to the uncertainty.

Overall, Canada benefits from these instabilities because it is seen as a safe bet in a risky world, a reliable source for much needed resources. By now, Canada, and B.C. in particular, are wealthy and more confident places. Before long, it is Canada brokering key agreements at a global level. The most prominent deal is the Arctic Accords, which create new international standards for shipping through the northern passageways, since they became navigable for the summer

months by 2030. With the economic pie expanding, every port along the West Coast benefits. Greater cross-border collaboration occurs among Pacific Northwest ports, thanks to a special security zone arrangement.

GATEWAY CONTEXT 2010-2030: THE ADAPTIVE CHALLENGE

In this scenario, the main challenge for the Gateway is how to operate in a rapidly changing world, where instability is the new norm.

To overcome key internal and external barriers, the Gateway develops a hybrid "for-benefit" corporate model. As part of this model, an emphasis is placed on new adaptive competencies, flexible systems and good global relationships, with the complexion of the Gateway looking more like the world it serves. These changes, however, are painful and not everyone likes this new direction.

Land use issues also remain challenging. But tensions are overcome — not fully, but satisfactorily to most stakeholders — with innovative planning and cutting-edge urban design that favours density, allowing for industrial and agricultural land to do more with less. Community champions are essential, creating greater visibility and facilitating collaborative problem solving. Novel partnerships are crucial, especially with First Nations. The federal and provincial governments are proactive allies as well, with a supportive national transportation policy and strategy.

WORLD & GATEWAY CONTEXT 2030-2050: WATER RISING AND A CURSE OF RESOURCES, CANADIAN STYLE?

But all was not well with the environment — another catalyst for global instability. By 2040, years ahead of schedule, the impacts of climate change are being seen on a large scale. On average, global water levels have risen by one metre, with temperatures around four degrees Celsius warmer. This happened far faster than most experts had forecast and is catastrophic in many parts of the world.

Fortunately, Canada's wealth helps compensate for the worst effects, with billions of dollars going into climate change mitigation infrastructure. But hardships are found everywhere as different challenges emerge, such as new diseases and severe droughts in the Prairie Provinces. But again, thanks to Canada's financial resources, the country is able to weather these shocks.

Meanwhile, climate change and other pressures on ecological services are increasing, thus highlighting a long-term dilemma. At some point, resources are going to run out and the current model will prove unsustainable. How will B.C. and Canada prepare for this? How will they diversify the economy while times are good? As the "curse of resources" theory points out, few places manage this well, preferring the short-term profit at the expense of the future. The eventual solution: a Norwegian-style sovereign wealth fund which takes a percentage of profits and invests these into future industries. In fact, this scenario may be a precursor to "The Great Transition."



THE GREAT TRANSITION

This is a scenario where we see a paradigm shift — a rapid transition to a post-industrial/post-carbon model.

A rough and risky period at first, a threshold is crossed mid-scenario due to new global leadership and the successful institutionalization of new metrics (“triple bottom line”). This creates new, more sustainable (and rebalanced) consumption and production patterns. While there are many losers, the Gateway becomes a global winner. A key factor: far-sighted, bold and collaborative leadership at multiple levels — from industry and communities to First Nations and all levels of government.

WORLD CONTEXT 2010-2030: ROCKY TRANSITION

Through the first 20 years, there is a rocky and risky transition, as the shift to a post-carbon economy happens much faster and more profoundly than anyone had expected. We see both new and old models muddled together, creating a period of confusion and uncertainty. Many traditional business models are disrupted, resulting in significant imbalances in the workforce as employers adjust to this new economy. The threat of a global systemic collapse looms with food security crises, eco-terrorism and challenges to the US dollar.

Out of these crises, however, emerges a new generation of global leadership, and many of these leaders are non-Western. Over the next 20 years, through a mixture of bottom up and top down leadership, a new world order emerges. A global dialogue, thanks to the use of social media, makes this possible. A key tipping point occurs in 2030, with a series of structural global reforms and policy innovations: a carbon tax and Triple Bottom Line prosperity metrics to supplement GDP/GNP, plus a voluntary shift in Wall Street measures. This enables a very different growth model, one that balances the economy, environment and human well-being.

GATEWAY CONTEXT 2010-2030: BUSINESS AS USUAL — BUT NOT FOR LONG

Meanwhile, the Lower Mainland proves itself to be relatively resilient throughout this period. It is still rocky for many, but early leadership in sustainability really pays off. All those experiments and policies at the municipal, community and

business level make the region more prepared for what is coming. The investments in fast public transportation prove to be invaluable. Even the most skeptical are convinced that investing in new sustainable approaches early on was the right direction.

Despite the global volatility, B.C. also fares better than most because of its valuable commodities and resources. In the early part of this scenario, the world is in the throes of this energy transition, which doesn’t happen smoothly. For a while, we see the coexistence of both carbon-based fuels and alternative energy approaches. The Emerging World is still playing catch up with the West in terms of consumption, which is far below quality of life standards. Therefore, commodities, like coal, oil and wheat, are in hot demand in the first 20 years.

Following the rest of the world, the port and shipping industries operate under the “business as usual” scenario as trade continues to rise. The wake-up call, however, occurs when oil prices start to rise precipitously. While other industries wait for this cycle to return to normal, forward-thinking leaders within the shipping, port and logistics industries create a consortium to explore carbon neutral breakthroughs in supply chain technologies. This collaboration proves to be very farsighted and is successful in preparing the industry for the new post-carbon realities; as a result, shipping outperforms alternative transportation modalities, like air cargo and trucking, for a long time. This also improves the industry’s reputation in neighbouring communities and even attracts some high level sustainability talent from other industries.

WORLD CONTEXT 2030-2050: BETTER OFF

Looking back, when global breakdown during the 2020s seemed inevitable, by 2050 the world is far better off than anyone had expected. The benefits of globalization are more evenly dispersed; poverty levels are in sharp decline. In addition, there are robust local and regional economies that pivot around key regions, which provide resiliency and buffering against everything from financial bubbles to food shortages. So while global trade still exists, the patterns are slower and different, with a mix between local and global manufacturing.

GATEWAY CONTEXT 2030-2050: NEW PATTERNS OF PRODUCTION AND CONSUMPTION

Very soon after the global carbon tax and Triple Bottom Line metrics are implemented, they have an impact on trade patterns. Fortunately, the result is a net positive impact for marine transportation and related industries, since shipping and the supply chain through Vancouver are more carbon-friendly than other gateways and modalities.

For the Gateway, this boost to shipping means we are exporting just as much as we import, including more value-added goods that are increasingly being produced in B.C. as part of the new energy economy. Anticipating the shifting business environment, the Gateway becomes a leader in the creation of a zero-carbon supply chain throughout its logistics network. This approach starts to pay off within a few years, as businesses and their customers are looking for low-carbon solutions and alternatives. The Gateway gains significant competitive advantage as being one of the few ports that can offer this.



"Sustainability. I think the community will not put up with anything less."

PORT 2050 PARTICIPANT



OUR ANTICIPATED FUTURE

When we looked at these four scenarios, we asked ourselves "where do we think we are now?" and "where would we like to see ourselves in 40 years?"

Upon consideration of all four scenarios, it should be no surprise that a world with decreased capacity, limited growth and missed opportunities is not desirable for Vancouver's Gateway. Rather, we want a future where growth is anticipated, enabled, considered; where pinch-points are understood in advance; where we tackle our challenges in the context of benefits.

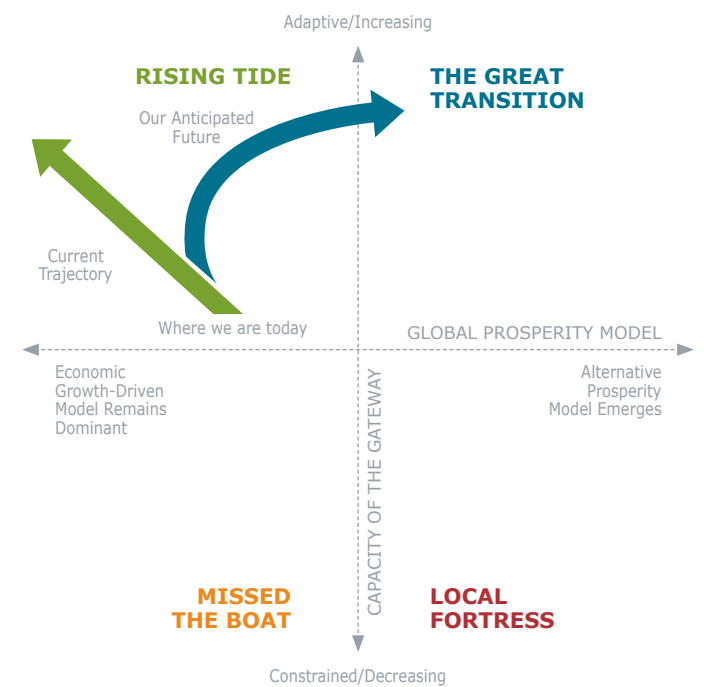
In our future, our responsibility to and for economic generation is understood, respected and supported in host communities because we work together toward common goals; relationships are built and strengthened. Growth means integration resulting in capacity availability, congestion-free or manageable corridors, integrated road and rail interface and sustainable growth solutions. Leadership replaces regulation. We do things because it's the best business solution that brings with it the most positive environmental and social impact.

What emerged is what we are now calling our Anticipated Future. This is an outlook that involves considerable growth across cargo sectors while eventually transitioning to a business environment where a true triple bottom line approach becomes the accepted and expected measure of success.

With this in mind, we determined that a portion of our Anticipated Future is found in the Rising Tide scenario. This is the future our strategy has traditionally assumed. While this is the most familiar outlook and — generally speaking — a continuation of the *status quo*, there are many aspects of Rising Tide that are not desirable, namely the potential for resource scarcity and economic turbulence.

Therefore, we also felt that The Great Transition is a plausible outcome from a longer term and broader view, especially given the many deep drivers of change we identified in this process. This scenario has the benefit of containing elements of our future vision in a way that matches the direction in which the overall business environment may be evolving. Many aspects of The Great Transition are preferable to the other three scenarios, as long as progress occurs in a manageable way and key risks are mitigated.

OUR ANTICIPATED FUTURE



The Gateway is uniquely well positioned for success in both scenarios. By anticipating this transition and preparing for it, we recognize that, collectively, we could gain strategic advantage.

As we move forward, questions that challenge our longer term thinking include: in what ways do Port Metro Vancouver and the Gateway want to shape and guide this transition? What are the points of influence where we can participate or lead?

FROM HERE TO 2050

Developing the Port 2050 scenarios has revealed important implications for Port Metro Vancouver’s strategy and operations and will continue to do so as this process and its outcomes deepen and become established within the organization. The following are several areas we will be paying close attention to within our business:

STRATEGIC VISION

One of the first things we have done is revise our strategic vision and mission statements. What we heard during the Port 2050 process is that there is an opportunity for Port Metro Vancouver to take a stronger leadership role locally, nationally and globally. This could take many forms, including a new and more active relationship with our stakeholders, or a more prominent advocacy position regarding regional development.

Our new mission and vision statements can be found on the back page of this publication. We believe the revised statements reflect this leadership opportunity for Port Metro Vancouver, as well as our commitment to sustainable growth for the benefit of the communities we serve, both locally and across Canada.

THEMES TO CONSIDER

Every scenario process shines a light on the question: what are those competencies of the future we need to develop to thrive? Through this process, we identified the following competencies that Port Metro Vancouver needs to nurture and advance:

- Full Gateway supply chain coordination, including strategic use of technology
- Breakthrough approaches toward land use and our overall footprint
- Leadership and innovation around increased productivity and energy efficiency
- Community partnerships
- Multi-stakeholder engagement and collaboration
- Our ability to attract top talent
- Our adaptive capacity
- Our ability to manage complexity

CONTINUED ENGAGEMENT WITH STAKEHOLDERS

Port Metro Vancouver has an opportunity to use this scenario work to engage with our stakeholders in a positive and productive strategic conversation about our shared future, a key objective of this process. Receiving stakeholder feedback on the strategic implications for the Gateway will both deepen our understanding of each others’ goals as well as create opportunities for further collaboration.

RESEARCH ON INEVITABLE FACTORS

There are some factors that we believe will be inevitable within our scenario time frame. For example, even this early on, it seems almost certain that we will experience an energy transition as carbon-based energy prices increase and resources become scarcer. This transition will have a major impact on Gateway activity and is likely to become increasingly influential in shaping future opportunities and challenges.

Other inevitable factors include:

- Increasing volatility and complexity
- Climate change and the local implications of global impacts
- Technological advances, both within the shipping industry and in broader society
- Demographic changes, and how such changes will affect community and regional values

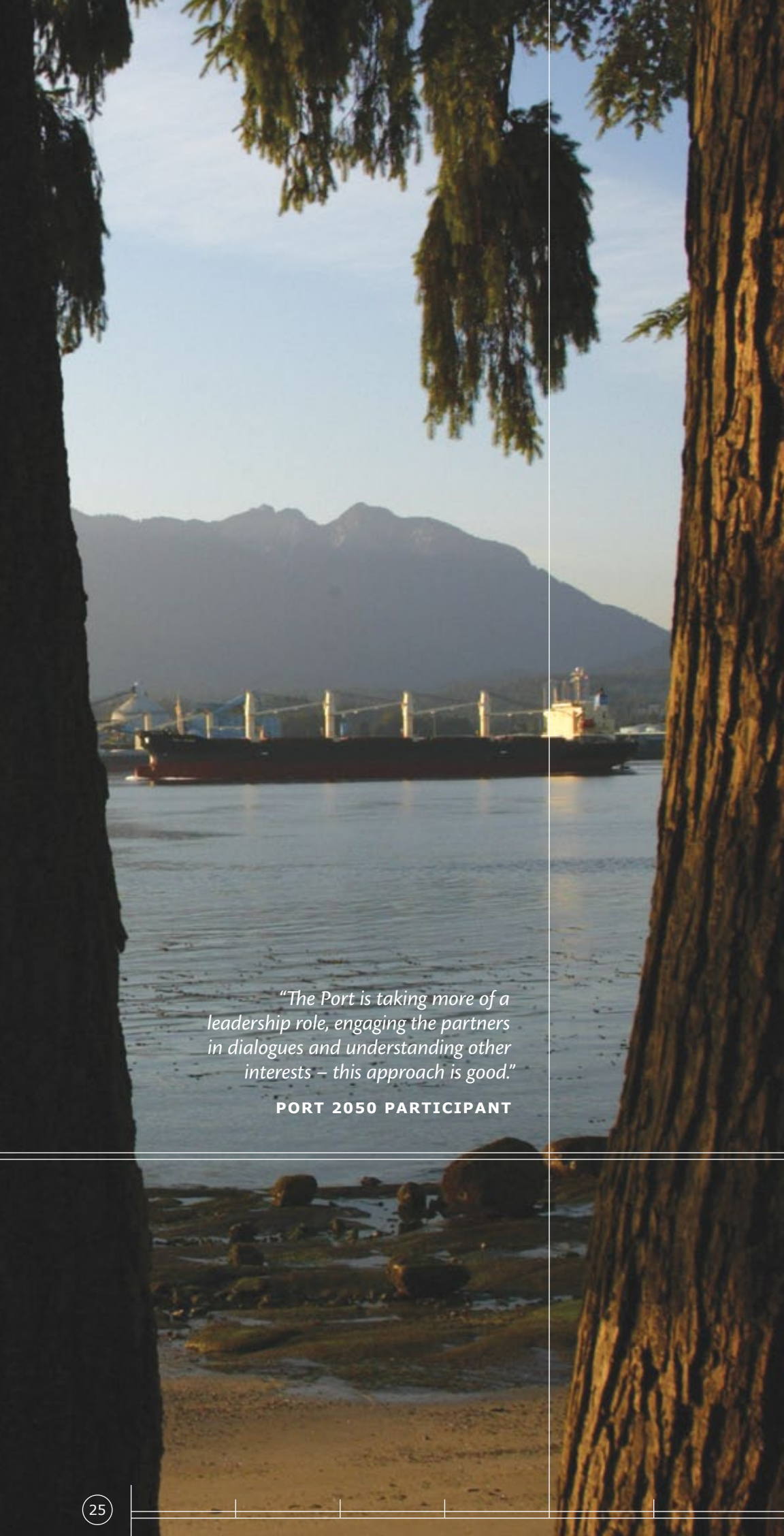
FOCUS ON INNOVATION

This is a longer-term priority that involves small or large experiments, pilot projects, collaborative initiatives and new products and services that enable the organization to test, sense and learn for the future in a relatively low-risk way. The most effective (and often only) way to manage future uncertainties is to do some “action learning;” that is, try things in the field, then gather data and learning from that experience, and either scale the results or take a different approach.

WATCHING FOR CHANGE

To help us spot key shifts in the business environment early on, we are compiling a list of early warning indicators, or critical developments that might suggest we are heading toward one scenario over another. The benefits of watching for these indicators include better risk management and increased competitive advantage.

INDICATOR CATEGORY	WHAT WE WILL WATCH FOR (EXAMPLES)
Social (values, demographics)	Changes in consumption patterns; community acceptance of Port operations; reception of corporate social responsibility principles
Technology	Rise of new manufacturing methods; investments in new energies; sustainable supply chain technologies
Trade flows/patterns	Trade policy; oil prices; foreign investment in emerging markets
Economic	Commodity pricing; changes to for-profit business model; growth of emerging economies
Environment/climate	Change in policy/regulation; increase in weather anomalies
Political	Political instability at home and abroad



“The Port is taking more of a leadership role, engaging the partners in dialogues and understanding other interests – this approach is good.”

PORT 2050 PARTICIPANT

SUMMARY AND CONCLUSION

We have come a long way since 1970, when the population of Canada was 21 million people and Port Metro Vancouver handled approximately 27 million metric tonnes of cargo.

Forty years from today, what will the Port look like? And what does good growth mean for us, our Gateway stakeholders and communities between now and 2050?

Those were the questions that guided us through this Port 2050 project, ultimately leading us to the development of the four plausible, relevant and challenging scenarios outlined in this report.

The “Local Fortress” and “Missed the Boat” scenarios describe worlds with decreased adaptability and capacity in the Gateway, where growth is constrained and opportunities are missed. As an organization with a mandate to facilitate trade in the best interest of all Canadians, these scenarios are difficult for us to embrace.

“Rising Tide” and “The Great Transition,” on the other hand, illustrate a future with increasing capacity and, ultimately, more sustainable production and consumption patterns and a new paradigm shift in how society values and measures prosperity.

We recognize that different scenarios will appeal to different readers. We have elected to focus our short-term future goals towards “Rising Tide,” with a 2050 vision leading us towards “The Great Transition.” We believe this trajectory can successfully balance interests to the benefit of all our industry and community partners.

How will we get from here to 2050? It is a progression that is already underway in the Gateway, where recent focus has been on collaboration, sustainable growth and community engagement.

Our revised strategic vision and mission statements will help guide our business priorities, shape new initiatives and ultimately infiltrate every aspect of Port Metro Vancouver’s operations, beginning in the near term with a substantial update of our Land Use Plan. This new direction will help us understand, anticipate and plan for a transitioning global social and economic environment.

But we can’t — and won’t — be able to make it on our own.

We believe this process represents an important milestone for the Port in terms of taking a more open, collaborative approach to charting our future.

What we have discovered is that there is a strong desire among many Gateway stakeholders and communities for a continued and sustained high level of engagement and collaboration in planning for our shared future.

It is our hope that, in 2050, we will look back four decades and be proud of the choices we’ve made, and how far we have come, together.

Thank you to the Gateway stakeholders, community liaison committee members, employees, First Nations and thought leaders who participated in the Port 2050 process. Your insight, expertise and time are greatly appreciated.



PORT 2050
A PORT METRO VANCOUVER INITIATIVE





PORT METRO
vancouver

OUR MISSION

*To lead the growth of Canada's Pacific Gateway in a manner
that enhances the well-being of Canadians.*

OUR VISION

*To be the most efficient and sustainable Gateway
for the customers we serve, benefiting communities locally
and across the nation.*

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