

METRO VANCOUVER FUTURE OF THE REGION SUSTAINABILITY DIALOGUES

SHAPING REGIONAL PROSPERITY AND COMPETITIVENESS

October 9, 2012, VANCOUVER, WOSK CENTRE

The Future of the Region Sustainability Dialogues are a series of discussions intended to assist decision makers shape the future of the region by inviting a range of views that challenge conventional wisdom and stimulate fresh thought on regional issues. The sessions explore topics such as housing, industry, labour and immigration, drugs and crime, the regional economy, transportation, energy and agriculture. The “issues summary notes,” below, provide an overview of unique points raised in the October 9, 2012, dialogue on regional prosperity. Summary notes from each regional dialogue and related board reports are available on the Metro Vancouver website www.metrovancouver.org.

Issues Summary Notes

ABOUT THE TOPIC:

SHAPING REGIONAL PROSPERITY AND COMPETITIVENESS

- We are here to discuss our regional economy, and in particular how we might best influence and guide economic development to ensure a prosperous and competitive region—not the easiest thing in the world to do.
- We will be hearing about regional economic drivers and how we might leverage assets to overcome problems and challenges.
- We will consider the future of jobs in the region and the role of regional affordability in attracting and keeping talent—always a problem.
- These are big issues that together affect how we prosper as a region and maintain a competitive edge in a global economy.
- This dialogue series is intended to explore the regional economy, with a focus on shaping regional prosperity and competitiveness. While there are some common agreements as to the current structure of Metro Vancouver’s economy and some of its competitive advantages, there are many viewpoints on what will drive the future of our economy.
- There is debate on how the many sub-regional economies in Metro Vancouver are linked, and how they can help create a diversified and dynamic regional economy. Amidst this uncertainty and within the context of a region struggling with affordability, important decisions are being made regarding land use, transportation systems and [the] development and expansion of other vital community infrastructure.
- Today we hope to consider different facets of this discussion.
 - What factors might drive our economy going into the future?
 - What types of jobs do we want to grow?
 - What assets can we leverage?
 - What challenges must we address?



- Are we growing an income gap? [Is] a low-medium household income and the high cost of living constraining our ability to prosper as a region and to keep and attract our talent?
- What roles can government and private sector, academia [and] citizens adopt to ensure a prosperous and competitive region?

THE DIALOGUE

1.0 Context

1.1 What is prosperity?

- What is prosperity in the 21st century?
 - We often think of it as economic prosperity, but it certainly is not just that.
 - It's really the state of flourishing or thriving, which includes economic and social aspects of life. It also includes wealth and factors independent of wealth, to varying degrees, such as health and happiness.
 - How happy are we in our cities and our communities in terms of our satisfaction with what we're doing?
 - In the bigger picture, economic wealth is at the centre of prosperity, especially in the 21st century. We've seen that demonstrated by the current global circumstances.
 - Economic health is the driving force for social and even environmental prosperity, depending on how we want to define that.

1.2 Social well-being is important to a strong economy

- The economy [is important] to all aspects of regional life and social policy [is important] to a strong economy.
- You start to see these important points of intersection and connection, and it comes down to the question of well-being.
 - How do we create a high quality of life for everyone?
 - As a society, we are stronger when we work together with that kind of shared vision and common purpose. If we can create a rising tide, how can we make all the boats rise?
 - What type of region do we want to be?
 - What type of communities do we want, and how do we create that kind of well-being [and a] vibrant community that works for everyone?

1.3 Global economic changes are affecting Metro Vancouver

- Structural changes are taking place in the broader global economic context, and these changes will no doubt affect the Metro Vancouver region and are affecting the region as we know it today.
 - It's important to have these kinds of conversations and to consider where we want to be, where we go and how we get there together.

2.0 Assessing prosperity in our region

2.1 B.C. has room for economic improvement

- So what about B.C.? Is B.C. a high-performing province? We have some peaks and valleys. Overall, we're a moderate performer. So there's room for improvement.
 - In economic development, we identify where that room for improvement [is], and the solutions to making sure we're addressing that.

- We are mild underperformers in exports, productivity, average wages, household incomes, employee numbers, retention of start-ups and other areas like cultural engagement and business growth rates.

2.2 Vancouver is a leader in the media and digital sectors and excels in exploration, science and transportation

- We're incredible leaders in key sectors like screen-based media, digital media, visual effects, film and television. It's all around us. We see filming going on every day.
 - Those sectors have grown significantly over the last couple of years, particularly in visual effects and animation.
- We are one of the world's top centres in mining exploration and exploration finance.
- We have small but nimble science clusters and top global universities and educational institutions.
- We're a leader in multi-modal and inter-modal transportation systems, especially with our port being the largest port in Canada and one of the largest in North America.
- We are extremely innovative, technological and entrepreneurial people, and of course we have one of the most livable cities in the world.
- I've been trying to [see a fourth leg grafted onto] his stool for over a year now. I think the fourth leg is [the] creative and digital industries. There's a lot going on here in Vancouver around that.

2.3 Metro Vancouver has a strong brand that requires qualification

- We travel outside of B.C., and Vancouver and Metro Vancouver's brand is very strong. But what does it mean? It's not qualified, and that's one of the challenges.
- From a global context, we live in a bubble. Anyone travel outside of Canada lately? We hear stories.
 - In London this summer, I talked to one of the young fellows who was a doorman at our hotel. He had two university degrees and he couldn't find a job. He was talking about how most of his friends were leaving the U.K. [to] find employment.
 - That's certainly consistent with the European Union and some of the challenges that are happening there. In terms of solutions, our talent is really our country's treasure.
- If we are such a powerful brand, as a city and a region, we must not be perfect. We must be making some mistakes.

2.4 Affordability needs to be addressed to ensure the region's prosperity

- We've talked about affordability as a key issue. [The Vancouver Economic Development Commission interviews] hundreds of companies every year in Vancouver, and [talks] to them about the key issues. Affordability is definitely at the top of the list.
 - We don't want that to start distorting our brand as the most livable city and region in the world. So it is really important to address that.
 - We're looking at talent attraction and sector support in sectors where employees place less significance on the purchase of a home. Digital media animation [employees], for example.
 - These are sectors made up of urbanites who love living in the core of cities [and] are very comfortable living in condos and townhouses and multi-family settings. That's actually what their preference is.

- That’s part of the solution and really an important part of us managing and maintaining our brand.

2.5 Canada’s economic systems, though not perfect, are the envy of the world

- *Forbes Magazine* says, “Canada is the best place in the world to invest right now.” We are stable.
- *The Economist* says our banking system is the best in the world, and our social safety nets and legal systems are definitely the envy of developing nations.
- Nothing’s ever perfect. [Churchill said it best when he said, “Democracy is the worst kind of government. Oh, except for all the other ones.”] We know it’s not a perfect system, but we are the envy of the world.
 - Anyone who has been paying attention globally knows how painful some of these necessary adjustments are.

2.6 Local business leaders have low expectations for the global economic recovery

- Ernst & Young does a capital confidence barometer every year, and this year some of the leading companies and thought leaders in the corporate sector [talked] about their expectations of the recovery.
 - 78% [of business leaders] think that the global economy has shown no sign of improvement.
 - 66% expect the downturn to persist for more than one year.
 - Only 44% view credit availability as stable. That’s quite low.

2.7 Declining appetite for mergers and acquisitions could hurt Vancouver’s economic prosperity

- There’s declining appetite for mergers and acquisitions. I will tie that back to what we do in Vancouver.
 - Vancouver and B.C. are strong centres for partnerships in bilateral trade.
 - Mergers and acquisitions are a really important part of our economy and our prosperity, so those are indicators for us that are really important to understand.
 - The intention to divest is down to 19%.

2.8 Economic development and social engagement should form the basis for Vancouver’s strategic prosperity objectives

- Ultimately, our strategic objectives are and need to be focused on central platforms of prosperity, which include economic development and social engagement. It’s really critical.
 - If we focus on ensuring our economy is stable [and well developed] and [have] this type of dialogue, it will generate the prosperity we need to support the social and environmental [objectives] that are really important to us.

2.9 Transportation is a critical aspect of Vancouver’s prosperity

- Another key to this in terms of solutions is the focus on transportation. Transportation is a critical aspect of prosperity.
 - Most of you know the story about Boeing leaving Seattle. A key factor in their decision was traffic congestion and the problems with transportation of employees and talent. Those are things that are really important for us to focus on.

- A major driver of economic growth in the region is transportation. It gets people to work efficiently and affordably. It certainly reduces the cost of living for lower- and middle-income people in the city.
 - Can you speak to regional co-operation on finding sustainable long-term financing for public transit and how that affects competitiveness?
- It's definitely a very timely and delicate topic. It's a critical factor, and I agree with you.
 - It's one of the key facets of economic, social and even environmental infrastructure that is really important as an economic driver, as I alluded to earlier with the Boeing example, about how that was a key factor for them.
 - Regardless of whether transportation systems are based on social, economic or environmental values, which they should be all three, Metro Vancouver is a leader in some aspects of transportation. We have, believe it or not, an excellent system.

3.0 Prosperity in Europe

3.1 The European Union is experiencing a more severe unemployment situation

- From a global context, we live in a bubble. Anyone travel outside of Canada lately? We hear stories.
 - In London this summer, I talked to one of the young fellows who was a doorman at our hotel. He had two university degrees and he couldn't find a job. He was talking about how most of his friends were leaving the U.K. [to] find employment.
 - That's certainly consistent with the European Union and some of the challenges that are happening there. In terms of solutions, our talent is really our country's treasure.

3.2 London and Brussels have established themselves as financial centres

- [Vancouver has] got to decide what it wants to be. London decided a long time ago to be a financial capital. If you go to London today, it's pretty dynamic, incredibly expensive, but a totally separate economy from the rest of Great Britain and England.
 - [The] unemployment rate in the U.K. is bad. Housing prices have gone down, but not in London. They've gone up, and that's because that city has made a conscious decision of what it wants to be.
 - You go over to Brussels, and it's decided it will be the centre for the EU, and it's even more expensive than London. [There's] no question of affordability for kids growing up. You want a job and you want affordability, then don't work in London [or] Brussels.

3.3 Company culture has changed from control and command to innovation

- The culture has changed for the majority of [today's] successful companies from one of control and command. You can probably see by my grey hairs and by my accent where I came from. I came from England. I left England because [it was] a very control-and-command environment, heavy union environment.
 - If you were working on a job, all you needed to know was your job. You didn't need to know what was happening to the left of you; you didn't need to know what happened to the right of you. In fact, you didn't even need to know what the end product was.
 - If you weren't doing a good job, the supervisor's job was to hit you over the head with a two-by-four. That was it.

4.0 Aboriginal prosperity

4.1 Aboriginal prosperity creates new economic opportunities for the whole region

- [Is] shaping regional prosperity [according to robust first nations resolutions] and other aboriginal concerns a relevant aspect of today's topic?
- I can speak to the aboriginal question. You want to consider how the entire region moves forward together.
 - While we are looking at how to capitalize on all [of the] potential within the region, you do want targeted strategies and initiatives that consider that low end.
 - [We need to figure out] how to consider what is definitely underused potential and create new opportunities at that end as well.

4.2 The aboriginal sector offers sizable potential for the province's skilled labour force

- I believe [the aboriginal sector is] the only sector that's actually growing.
- [On the aboriginal side], where there is growth, industry associations [have said] that over the next 10 years, [upcoming] megaprojects [like] Site C dams, LNG plants [and] mines will be going after almost all the same sort of skilled labour.
 - We could hire all the currently unemployed plus all aboriginal groups, if we were able to do the correct training, and we would still not have enough talent in this province. That's how big the issue is.

5.0 Supply and value chains

5.1 The global supply chain allows manufacturing to take place all over the world

- Contrary to popular belief, manufacturing has not all moved to China. [In fact], any firm anywhere can hook up to a global supply chain.
 - A product may be designed in one country and assembled in another, using components from dozens more.
 - [There are] all sorts of examples of manufacturing entities here in B.C. I can think of one [that is] supplying products components to their product from 23 different countries.

5.2 Global mass-market supply chains are being shortened to reduce costs

- The companies in B.C. [are successful because] they're small, they're agile [and] they respond very quickly to customer demand.
 - They usually have in-house design and can produce low-quantity-run products, not the mass production you're seeing that's gone offshore to places like China. But even some of that you're seeing come back.
- In the high-tech sector, you've seen a chip manufacturer in Japan go down, which just collapsed a whole load of production all around the world, because suddenly you couldn't get the component.
 - A lot of that's being rethought, and supply chains are being shortened up to reduce costs, because of reducing the timeframe necessary for the inventory.

5.3 Creating regional value chains will serve the needs of Metro Vancouver

- There are a few presuppositions being made [on] competitiveness, branding ourselves so that we can sell ourselves to the rest of the world [and] hooking more into this global supply chain than we already are.
- What merit do you see in potentially harnessing some of the amazing human resources we have in Metro Vancouver [to fulfil] some of our own needs that we have in this region?
 - That would be one thing—creating a local economy, a regional economy with regional value chains.
 - Is there anything that we can do at a regional level to harness the resources that we have locally towards solving local needs, [such as] creating regional value chains?

6.0 Achieving economic competitiveness and prosperity in Vancouver

6.1 Metro Vancouver must make investments in economic and social infrastructure

- When you consider Metro Vancouver and the question of economic competitiveness and prosperity it comes down to three central areas to explore, and they're huge.
- You really want good investments in your economic and social infrastructure.
 - I'm talking about investment in jobs, housing and education. You want the types of investments that you need to support a strong and vibrant economy.
 - The conversations that happen in these rooms, at local councils and at the Metro Vancouver board table are the kinds of conversations we need.
 - What are the investments in the economic infrastructure we need to make around transportation [and] industrial land?
 - What are the types of investments in the social infrastructure that we need to make around housing, education [and] jobs?
- It is really important for all of us to think about the aspects of the region that we love and the quality of life that the region's been known for, and think about what types of investments or strategies we need to try to maintain that high quality of life.
- I go back to my first point about investments in social and economic infrastructure.
 - On the social side, it would be investing in the workforce here and building the skills that we need so that we're optimizing those opportunities and creating new ones.
 - On the other side, the investment in the economic infrastructures—we really have to make sure that the region [has] the infrastructure in place that business needs.

6.2 Partnerships between sectors and the community are critical in choosing investments

- Critical to [the type-of-investment] question are partnerships with other levels of government, the private sector, the academic sector [and] the community. What does that look like when we're talking about the economy?
 - There are important investments that can be made in research and development, in training and education, to ensure that you have the workers with the skills that are needed to compete in the new economy.
 - We really want to create a growth model that does recognize and embrace the region's changing demographics and makes the type of investments that will allow current and future generations to move forward.

6.3 The jobs and opportunities we invest in must allow us to take advantage of the new economy

- There's also access to employment and economic opportunity.
 - That's the type of quality and nature of the jobs that are created, and the importance of investing in new research and innovation so we can take advantage of the new economy.
 - What is that type of solution that could create that potential for everyone?

6.4 Social and economic disparities must be eliminated

- There's research that also suggests that social and economic disparities can adversely affect everyone.
- Inequality is not only bad for those at the bottom end of the income distribution, but it can affect and limit growth across the region or the well-being piece.
 - That's an important piece to consider. There are questions around a vanishing middle class, and we have to consider what that might actually mean, and how you create the jobs and the opportunities to help create that strong and vibrant middle class.

6.5 Diversity is an economic asset

- Diversity is an economic asset and diverse communities can help to create new markets and contribute to the development of new enterprises, as well as provide an important consumer base.
 - We have to consider [how] our region and the growth of our region can capitalize on that asset.

6.6 Housing affordability must be addressed

- We've heard [about affordability] and we know that it is the topic of many dinner conversations in the evenings.
 - That's everything from how parents will be able to get their kids out of their home into their own home, through to what kind of wealth has been created through having a home in this region.
 - If you put the overlay of the pressures on the middle class and those at the low end who are just entering the housing market, you can start to see that we almost live in two different regions in certain ways. We have to find a way to make that affordability equation work.

6.7 Local governments can introduce incentives to increase competitiveness

- Local governments have an important role to play. They don't control many of the levers needed around competitiveness, but around the regulatory piece, there may be incentives they can bring to help make it more competitive.
 - Certainly being a voice in Ottawa and in Victoria around the needs of local communities to really thrive and survive is an important role of local government.

6.8 Our shared services have given us competitive advantages

- We already have a number of competitive advantages here in the Lower Mainland, in the regional district, as a result of some of the shared services that we have.
 - We'll [likely] consider further shared services and opportunities as we go forward.

7.0 The Metro Vancouver brand

7.1 Metro Vancouver has a strong brand that requires global qualification

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- From a global context, we live in a bubble. Anyone travel outside of Canada lately? We hear stories.
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 - That's certainly consistent with the European Union and some of the challenges that are happening there. In terms of solutions, our talent is really our country's treasure.

7.2 Affordability must be addressed to maintain the brand

- If we are such a powerful brand, as a city and a region, we must not be perfect. We must be making some mistakes.
- We've talked about affordability as a key issue. [The Vancouver Economic Development Commission] interviews hundreds of companies every year in Vancouver, and [talks] to them about the key issues. Affordability is definitely at the top of the list.
 - We don't want that to start distorting our brand as the most livable city and region in the world. So it is really important to address that.
 - We're looking at talent attraction and sector support in sectors where employees place less significance on the purchase of a home. Digital media animation [employees], for example.
 - These are sectors made up of urbanites who love living in the core of cities [and] are very comfortable living in condos and townhouses and multi-family settings. That's actually what their preference is.
 - That's part of the solution and really an important part of us managing and maintaining our brand.

7.3 Having a positive brand can create complacency

- As a first-generation Canadian, one of the lessons that I take away is necessity is the mother of invention.
 - [The downside of] having such a great brand and such a livable city is that we [rest] on our laurels. When it's nice outside, what's the incentive to work? When you've got a great life, you know, why do you need to work more?
 - It's the first-generation immigrant in me that believes that if we have the passion to create stuff and the drive to grow it and make it succeed, that's [what] we need to instil. And we can leverage off the brand if we do that.
 - Our issue is complacency, and we can't let that be the enemy of our potential.

8.0 The manufacturing sector

8.1 Manufacturing is still an important economic driver

- A lot of people think that [manufacturing] is a dying industry. It isn't, and it's a very important economic driver for any economy.
 - There [are] only three economic drivers for growth that help pay for our standard of living [including] our social benefits, education, and our medical system. You have to harvest it, mine it or manufacture it.

- [B.C. has the resource industry] in spades. By manufacturing I mean adding value.
 - It's a three-legged economic stool. We can remove any of these three legs, and you impede your economy's ability to provide the standard of living that we in B.C. have become accustomed to.
- The manufacturing and exports of both Germany and the United Kingdom have led their countries' economic recovery for the last two world recessions.
 - Germany [has] high labour costs—in some cases, higher than in Canada—and yet [has] a thriving manufacturing industry.

8.2 SMEs in the manufacturing sector are creating jobs

- The United States has recognized the need [to revitalize] their manufacturing sector, with a key reversal being to greatly expand efforts to support the competitiveness of small- and medium-sized firms.
 - It's the SMEs—the small-medium enterprises—that actually are creating jobs.
 - These represent over 90% of manufacturing companies here in B.C.—slightly different to the rest of Canada at around about 84%.
 - [There is a] much higher predominance here of small manufacturing entities.

8.3 Manufacturing is essential to maintaining competitiveness

- As explained in the case for a national manufacturing strategy, a report by the Information Technology & Innovation Foundation, it is impossible for major economies to remain competitive without a viable manufacturing sector.
 - Manufacturing plays a vital role in helping countries achieve balanced terms of trade.

8.4 Manufacturing in B.C. pays better than other industries on average

- Manufacturing provides large numbers of above-average-paying jobs.
 - Here in B.C., manufacturing represents about 400,000 direct and indirect jobs [with] wages totalling about \$8.6 billion, 15% higher than the average overall wage for industries in B.C. and Canada.

8.5 Manufacturing is the principle source of research and development

- Manufacturing is the principle source of an economy's R&D and innovation activity.
 - Here it represents over 42% of all private sector R&D. Over 42% of all R&D in the private sector is done through manufacturing.

8.6 The services sector relies on manufacturing

- The manufacturing and services sectors are complementary and inseparable.
 - A huge amount of the service sector relies on manufacturing in one way or another.

8.7 Outsourcing in the manufacturing sector has increased

- We've seen a huge amount of outsourcing.
 - Although manufacturing companies may have reduced their number of employees, they outsource more, [including] the legal side, the IT side [and] the accounting side.

8.8 Manufacturing is essential to national security

- Manufacturing is essential to a country's national security.
 - You're seeing that in spades in the United States, with their adversity to some foreign companies supplying into their manufacturing sector.

8.9 Global manufacturing output continues to grow in spite of the overall economy

- [For] manufacturing in general, [the] global industry output was 57 times greater in 2010 than it was in 1900.
 - In other words, manufacturing has grown far faster than the overall economy on a global basis.
 - The main reason for this is factories keep getting smarter in the ways that hair salons do not. This again is through a huge amount of R&D that's being done to be able to produce a product faster, quicker, and at less cost.
- The volume and variety of goods soar, even as prices tumble. One estimate states that the world's factories crank out more unique products than there are people.

8.10 The global supply chain allows manufacturing to take place all over the world

- Contrary to popular belief, manufacturing has not all moved to China. [In fact], any firm anywhere can hook up to a global supply chain.
 - A product may be designed in one country and assembled in another, using components from dozens more.
 - [There are] all sorts of examples of manufacturing entities here in B.C. I can think of one [that is] supplying products components to their product from 23 different countries.

8.11 Manufacturing has the biggest economic footprint in B.C.

- Manufacturing has the biggest economic footprint in the province, with over 12,000 B.C. firms.
- Manufacturing pays one-third of all business tax revenues while their employees contribute more than \$2.5 billion in personal taxes every year.
- [Manufacturing represents] 11.2% of [the] total provincial GDP, which has expanded by 43% since 1997, so this sector has been growing.
 - That's compared to 5% in the high-tech sector, with no expansion, and 3.8% of tourism, where we've seen some decline.
- Manufacturers represent 75% of all merchandise exports, and just in the last year, B.C. is the only province that exports 50% of its goods to somewhere else other than the United States.
 - Compare that to Alberta, where 85% of all their exports are still dependent on the United States.
- Economic spinoffs generate just over \$3 in new economic activity for every dollar spent in manufacturing, and manufacturers represent over 42% in R&D.
- B.C. is the only province where more than 50% of its exports go to the United States, and B.C.'s manufacturing and exporting sector performs as a strong economic engine for the province.
 - This is borne out by the fact that this sector has increased by 43% since 1997.

8.12 Some manufacturing companies are struggling with currency fluctuations

- We have a pretty thriving manufacturing sector here despite the current economy and where the dollar is.
 - A lot of the manufacturing companies have got used to a dollar at par. Some haven't. Some have struggled.

- What is really difficult is currency fluctuations. You do a deal today at par, and then when you come to settle in just a few days, weeks or months' time, it's at 95 cents or \$1.02. A lot of companies have been able to adjust to that.

8.13 The growth of B.C.'s manufacturing companies is impeded by skilled labour shortages

- 64% of our members currently say that the growth of their [job-creating] companies is being impeded by the fact that they cannot find the skilled labour.
 - In this province, we have [an] unemployment rate just under 7%, and yet these companies cannot find the skilled labour they need.
 - Over \$10 billion of major projects coming down the line in the next few years will be looking for the same talent, [and] we already have a shortage of skilled labour.
 - That's a big issue, and there's a big mismatch between the unemployed and the skillsets that those companies are looking for.

8.14 Skilled labour shortages in manufacturing are partly a result of Metro Vancouver's unaffordability of living

- The last thing is on affordability. Outside of Metro Vancouver, we have a company right now that has doubled the employees on its shop floor in the last 18 months, but it's five design engineers short that it can't find.
 - It's recruiting from places where it's not such a desirable place to live, [such] as the Okanagan, so that's a plus.
 - They're providing salaries that [are] greater than, say, they were paying in Hamilton, which is a plus.
 - The quality of living is better. But as soon as that individual clicks on to the real estate website, it's game over.
 - For that individual to move, on average, they would have to have four times the salary they're being offered to make that transition. That's in Penticton. Now translate that into Metro Vancouver, where you've heard about the pricing.

8.15 The perception of manufacturing as a polluting sector needs to change

- Manufacturing is the one key industry sector—again, surprisingly—that meets the Kyoto targets.
- If I go onto Microsoft and look for an icon for manufacturing, I'll come up with two chimneys with black smoke coming out, and it's not that at all. There are some really, really exciting and rewarding jobs [in high-tech manufacturing] today.

9.0 The technology sector

9.1 Metro Vancouver's technology sector is growing steadily

- About one in 10 people in Metro Vancouver work in the tech sector. [The BC Technology Industry Association is about 20 years old]. We've really been focused on helping to drive the growth of the industry.
 - We've seen over the last decade or so that it's really grown by leaps and bounds. In 1993, the industry was about \$4 billion. Now it's about \$20 billion in the province, so we've seen some really good growth.
 - We represent companies across all the main sectors. That would be clean technologies, digital media, wireless communications, telecommunications, software, IT and some of the areas in life sciences.

- We see everything from one- to two-person start-up organizations all the way up to very large multinational companies [and] everything in between.

9.2 Technology is changing our social dynamics

- Most people would agree that technology has been a transformative force in all of our lives.
 - Everything we do on [social media], Facebook [and] Twitter [and all of the] digital media that's affecting how we learn and play and work are elements constituting the change in the dynamics of our society.

9.3 The technology sector has grown quickly and created a lot of well-paying jobs

- A few months ago, our organization along with our partner organizations in life sciences, the cleantech people and Wavefront collaborated with KPMG to do an analysis and study on what was happening in the technology industry in B.C., and to really examine where the opportunities might lie over the next decade.
 - The really great news is that the industry has really become a fairly significant economic engine for the province.
- Tech was the fastest-growing sector over the past decade, and is now the third largest private sector contributor to GDP.
- It's created a lot of jobs, virtually more than any other sector, and a lot of these jobs pay higher than the average industrial wage, probably about 50% more than the average B.C. wage.
 - Over 84,000 or 85,000 people work in the tech sector, so roughly one in 10 if you normalize that across the province.
 - [There are] more people working in that sector than all the resource industries combined. If you add up mining, oil and gas and forestry all together, there's more people working in tech than in all the resource industries.
 - That's a signal for where our economies are moving and where it will go in the next decade.

9.4 The growth potential of our technology sector has not yet been fully captured relative to other jurisdictions

- We have just barely begun to tap our full potential. There's a lot of growth potential in this industry. I don't think we've fully captured it yet.
 - The size of our industry is still significantly smaller on a per capita basis than what you might see in other jurisdictions [such as] Ontario, Quebec and the United States.
 - Our employment levels on a relative basis still have a ways to go.
 - Our investments in some of the core elements that create an innovation society, like R&D and patents and even our post-secondary number of degrees in those sorts of areas, [are] still a fair ways behind some of the other jurisdictions.
- [There is] about a \$9 trillion market for global technology. It grows at about 7% or 8% per year, so there's an immediate and enormous opportunity for Metro Vancouver [and] all of B.C to capture greater economic benefits from that.
- We have all the ingredients here to be a world leader. Metro Vancouver, out of all the stats that I shared with you, you can multiply it by 70%. That's about where we sit here in the region. It was recently ranked number 16 in terms of the top tech centres in the world.

- [For] a start-up ecosystem, nothing really beats it. We've got a lot of talent. We've got some of the best post-secondary institutions, and one of the most diverse workforces ever to be found.

9.5 Local government and companies play active roles in the success of our technology sector

- If you consider a lot of the other economies, particularly in [the technology sector], you see a lot of evidence where governments and companies nearby play an active role in being first customers, in setting up test beds, in creating environments [that create] the conditions for winning [and] success for these sorts of companies.
 - I don't think it just has to be technology. It's evident in virtually every industry that we see here in the local economy. [The manufacturing sector] can probably attest to that as well.

9.6 We need to encourage the growth of our middle-class small technology companies

- I can share three simple ideas as to what we need to do as an industry and how we can create a better environment for everything in our neighbourhoods and our communities.
- [We need] a real conscious effort to help our companies to grow.
 - In Vancouver and B.C., we have an awful lot of small technology companies. That's [not] a problem in terms of creating innovation. That's certainly where jobs start.
 - When fewer than 4% of all of our tech companies [have] less than 50 employees, it indicates we're missing the scale necessary to grow more substantive companies.
 - A sustainable, thriving community really relies upon the middle-class segment.
 - You can use that same analogy in terms of companies. You need a lot of middle-class companies to sustain real economic growth.

9.7 We need to create a home team advantage for our local tech companies

- We could do a lot more to build a culture of supporting the companies that are here.
 - [We need to create a] home team advantage to the extent that our procurement policies and the things that we do in the public sector [and] private sector create [an] almost unfair advantage for the companies that are being built here.
 - We need to exert as much energy as possible [in] supporting the home team.

9.8 We need to invest in new-economy jobs for the next generation of Vancouverites

- [We need to invest] consciously in new economy jobs, because that's really where the aspirations for a lot of us who have kids are.
 - We're looking at the opportunity to create the employment capabilities or capacity [necessary to] harness the creative- and knowledge-based resources that we already have here and create clean and new-economy careers for the next generation of Vancouverites.

10.0 The BC Bioenergy Board

10.1 Mandate of the BC Bioenergy Board

- The final paragraph of your bio said, "building a world-class bioenergy capability in B.C." What does that mean?

- I didn't write it. I guess it's actually in reference to the BC Bioenergy Board. I'm a member of that board.
 - It's a non-profit organization that was set up a number of years ago to create some competitive capacity on harvesting some of [our] bio resources, whether it's municipal waste [or] wood waste, and turn that into industrial and competitive strength.
 - Its mandate is basically to support some of the companies and businesses that are seeking to make products or convert waste products into energy in a more sustainable fashion. That's really what bioenergy is all about.

11.0 Transportation

11.1 Transportation is a critical aspect of Vancouver's prosperity

- Another key to this in terms of solutions is the focus on transportation. Transportation is a critical aspect of prosperity.
 - Most of you know the story about Boeing leaving Seattle. A key factor in their decision was traffic congestion and the problems with transportation of employees and talent. Those are things that are really important for us to focus on.
- A major driver of economic growth in the region is transportation. It gets people to work efficiently and affordably. It certainly reduces the cost of living for lower- and middle-income people in the city.
 - Can you speak to regional co-operation on finding sustainable long-term financing for public transit and how that affects competitiveness?
- It's definitely a very timely and delicate topic. It's a critical factor, and I agree with you.
 - It's one of the key facets of economic, social and even environmental infrastructure that is really important as an economic driver, as I alluded to earlier with the Boeing example, about how that was a key factor for them.
 - Regardless of whether transportation systems are based on social, economic or environmental values, which they should be all three, Metro Vancouver is a leader in some aspects of transportation. We have, believe it or not, an excellent system.

11.2 Upcoming transportation investments will indicate the direction and quality of Vancouver's economic growth

- There's a lot of room for improvement. [I can't speak directly to] the financing mechanisms, but the tug of war right now is where the next level of investment [goes].
 - [There are a] couple of key aspects [involving] the east-west corridor between here and the Fraser Valley. [There are] intercity transportation options within some of the neighbouring cities like Surrey.
 - In Vancouver, one of the really critical next stages of transportation development will be along the Broadway corridor. Where the largest producer of GDP in B.C. is downtown Vancouver, the next largest producer of employment and GDP is along that Broadway corridor, which connects to the regions and transports employees to and from those places of work.
 - It will be a critical decision in this next round of decision making around where that investment [goes], because it will lever the next level and quality of growth in Metro Vancouver.

11.3 The population explosion in the Greater Vancouver area over the next 20 years will heighten demand on transportation

- I may be incorrect in my estimate here, but if you consider some of the figures of what will happen in Vancouver in the next two decades, there will be an additional million people in the Greater Vancouver area, the Lower Mainland [and] the South Coast, zooming around and trying to get to work and trying to find a job.
 - It's just staggering. I don't know whether you think that is a legitimate figure. Do you think there's a potential for that? The world will completely change here.

12.0 Urban farming

12.1 Our local food sources need to be protected

- If we live in an urban environment, where do we get our food sources from, and how do we protect those food sources?
- From an economic perspective, national security [often depends] on having your own food sources. The level of national security you feel and have as a country is only as secure as your food sources.
- [There are] a number of reasons why it's economic as well as socially important to have local food sources.

12.2 Urban farming is a key aspect of the economy

- One of the projects that we've really supported and worked on is a project with VertiCrop, and it's urban farming.
 - The city has taken [the whole top area of] one of the city parking lots and turned it into a pilot project for VertiCrop, which will now start producing urban food, and so that will be part of the whole system.
- There's a whole program there associated with local food [and] farmers' markets, so it is a key aspect of the economy.

12.3 The Davie Street garden

- I represent DIGs and the Davie Street garden. I commend you on talking about urban plots. I hope to see more of them.
 - DIG stands for "downtown interprovincial garden" on the top of St. Paul's Hospital, and we have over 40 little gardeners working hard. Yesterday's Thanksgiving dinner provided peas and carrots out of my own plot in both the St. Paul's and the Davie Street garden.
 - I dearly hope that you will see more, and I'm hoping that somebody here can save our Davie Street garden. I think they will stick a great big condo on top of our beautiful garden. Let's hope [for] an end of that condo and the garden still to grow.
- Maybe they can put the garden on the roof.

13.0 Affordability of housing

13.1 Housing affordability is putting pressure on household budgets and the rental market

- Housing is a major pressure in the region, but other costs are increasing as well—transportation, food—and so you're really starting to see pressure on many household budgets.
 - That is something we want to consider as a region and see what we can do.

- I pulled the housing statistics for September. It's no surprise to anyone in this region that a single detached home is selling for almost a million dollars, never mind some of the specialized markets that are selling for significantly more.
- Even the rental market is feeling the squeeze. There's a shortfall of new rental housing construction, which automatically creates upward pressure on rental prices.
 - If you look at a two-bedroom in Metro Vancouver today, a household would need \$50,000 just to carry the cost of that rent, at a price that used to be considered affordable.
 - If you translate that into a housing wage, that means someone has to earn about \$27 an hour.
 - The problem with looking at the average market rents in this region is that that's the older housing stock. A lot of that's been under rent control for a certain amount of time.
 - If you consider the newer stock, which is your secondary rental market—the rent-a-condo stock—you're looking at rents of about \$1,600 a month, or an income of about \$66,000 to carry the cost of that rent.
- You start to see where the pressures and the squeezes will be on new-immigrant households, on people considering moving to the region for new jobs and new opportunities and [on] younger households just starting out on both their careers and their housing careers.
 - Finding ways to address these pressures is critical. Municipalities can only go so far, because there's only so much you can get out of the regulations.

13.2 Vancouver has the lowest birth rate in Canada because its residents cannot afford bigger apartments

- Another statistic I learned the other day was that Vancouver had the lowest birth rate anywhere in Canada.
 - Why? Because if you're a couple living in an 850-square-foot apartment and you want a child, you won't bring it up in that apartment.
 - You need the money in order to get a bigger apartment or get another house, so some of the decision on having a child is being delayed, or not having a child at all.

13.3 Skilled labour shortages in manufacturing are partly a result of Metro Vancouver's real estate prices

- The last thing is on affordability. Outside of Metro Vancouver, we have a company right now that has doubled the employees on its shop floor in the last 18 months, but it's five design engineers short that it can't find.
 - It's recruiting from places where it's not such a desirable place to live, [such] as the Okanagan, so that's a plus.
 - They're providing salaries that [are] greater than, say, they were paying in Hamilton, which is a plus.
 - The quality of living is better. But as soon as that individual clicks on to the real estate website, it's game over.
 - For that individual to move, on average, they would have to have four times the salary they're being offered to make that transition. That's in Penticton. Now translate that into Metro Vancouver, where you've heard about the pricing.

13.4 Affordability is an issue for attracting outside talent to jobs in the region

- Affordability is a huge issue for attracting talent. We've got two problems right now specifically in the manufacturing sector to generate the economy. One is finding talent.
 - [If we want] the economy to keep growing, then we have to rely on talent coming in from outside. And that's a huge problem because of the affordability side.

13.5 Newcomer employees who embrace alternate living spaces may be the key to addressing affordability

- We've talked about affordability as a key issue. [The Vancouver Economic Development Commission] interviews hundreds of companies every year in Vancouver, and [talks] to them about the key issues. Affordability is definitely at the top of the list.
 - We don't want that to start distorting our brand as the most livable city and region in the world. So it is really important to address that.
 - We're looking at talent attraction and sector support in sectors where employees place less significance on the purchase of a home. Digital media animation [employees], for example.
 - These are sectors made up of urbanites who love living in the core of cities [and] are very comfortable living in condos and townhouses and multi-family settings. That's actually what their preference is.
 - That's part of the solution and really an important part of us managing and maintaining our brand.
- Are you saying encourage newcomers that there are alternate living spaces?
- That is correct. And these sectors also compete. We compete with cities that are less affordable than we are, [like London and L.A.].
- How about New York? Nobody lives in New York unless you're Mr. Trump. Everybody else commutes for hours and hours a day. I think it makes them crazy, but there you are.

13.6 Affordability is a hurdle to new Vancouver residents who want to buy homes

- I moved to Vancouver two years ago and knew it as the most livable city in the world, and came [to find] two metros. You have a Vancouver of property owners and a Vancouver of people who live in basements.
 - We've talked a lot about affordability as a major hurdle to prosperity and competitiveness, especially with people trying to start families [and] careers. But we haven't heard a lot discussed about what will actually change the affordability here.
 - Inviting people in who don't want to buy houses seems sort of "have your cake and eat it too" if you're a property owner in Vancouver.
 - What is happening, and where do you see the best opportunity for that curve to bend for people who haven't owned a house here for 20 years and would still like to live here?
- It's the biggest question. It's the question that everybody keeps asking—how will anybody ever buy a house?

13.7 New housing infrastructure is lagging due to fragmented policy decisions

- There was a lot of growth, especially prior to '08, and there's a bit of a lag in terms of the infrastructure, both in terms of the transportation infrastructure and the housing infrastructure. Both also suffer from fragmentation in the [provincial, federal and municipal] policy decisions.
 - At the municipal level, there are certain things that can be done on the transportation and housing question, but you often need other levels of government at the table because municipalities alone [don't] have enough ability to move the dial as much as it needs to be [moved].
 - There's a lot of work around incentivizing new rental housing construction, and there's been a huge lag. Prior to '08, there were only about 783 new rental-housing units a year being built region wide, [before the number jumped to 1,500].
 - If you're only adding 700 new rental-housing units a year, you're creating upward pressure on that rent and you're never meeting all the new demand.
 - Each municipality is looking at what they can do to incentivize it and to bring the other levels of government back into the conversation.
 - The same would be true on the transportation question, because we are definitely feeling that lag and there's a lot of pressure and impact on quality of life.
- City governments can do a lot of things, but they can only do so much. They're empowered around legislation and density and certain key aspects of [who we attract to the city and how we attract them].

13.8 Increased density is necessary to managing housing affordability

- The city just released its affordability task force report, which identifies a series of things, and every corner has been lifted on what we can do as a city [to] engage other levels of government to manage affordability, and increased density is certainly a big part of that.
 - [We need to] look very carefully at the regulatory burdens on development that drive up the price of real estate and affordability, and the areas where we can densify in the city that it makes sense, especially along transportation corridors [like] the Canada Line and economic corridors [like] the Broadway corridor.
 - One of the challenges is and will always be [that] this is a [destination] city. The good news is that it's a very popular destination.
 - Affordability, over the long term, will continue to be a challenge for the city, but continuing to increase density and deal with resistance to that, particularly in neighbourhoods that don't want to see change, [is important].
 - Getting support from the population to increase that density will be really critical moving forward. People are often resistant to that change and to extraordinary change [in general].
 - Part of the challenge is we have an extraordinary circumstance. We need to apply extraordinary solutions to that circumstance, and there needs to be really strong public support in order to be able to do those things.

13.9 Vancouver's average household income relative to its average housing price reflects its status as a destination city

- Anybody been to Fort McMurray lately? Just to put some of this into perspective, where growth can have positive and negative impacts, their average household price is \$750,000, so it's comparable to Vancouver. Their population right now is 190,000. They're expecting that population to double before 2030, so they're really scrambling.
 - [The] average household income in Fort McMurray is \$180,000. Anybody know what it is in Vancouver? \$68,000. When you start looking at it in context, the good news is that you're growing and that you're a desirable destination, and the challenge becomes obvious.

13.10 Vancouver hasn't decided what kind of homeowners it wants to attract

- I don't think there's an answer to the question you have raised on affordability. If you want affordability and you want your kids to be able to buy a home here, unless you do something pretty draconian and drastic, I don't see it.
- The area's got to decide what it wants to be. London decided a long time ago to be a financial capital. If you go to London today, it's pretty dynamic, incredibly expensive, but a totally separate economy from the rest of Great Britain and England.
 - [The] unemployment rate in the U.K. is bad. Housing prices have gone down, but not in London. They've gone up, and that's because that city has made a conscious decision of what it wants to be.
 - You go over to Brussels, and it's decided it will be the centre for the EU, and it's even more expensive than London. [There's] no question of affordability for kids growing up. You want a job and you want affordability, then don't work in London [or] Brussels.
- Vancouver [has not made] a conscious decision to be a financial centre and couldn't anyway. It's not a centre for the EU or some government office. It is a centre where people want to have a house.
 - You're attracting people that don't have to work here. They are either investing here or they're retiring here. You could make a conscious decision that Vancouver will be a retirement community, because those are the only people that can afford to live here.
 - That's what's happening in the Okanagan right now. Kids can't afford the housing there, and it's being driven by Albertans cashing in their [oil company stock options] and buying properties against all the economic predictions of retirees scaling down from their three- [or] four-bedroom homes to a two-bedroom apartment. They're buying six-bedroom apartments for two people. That's driving up affordability again.
 - I don't have an answer for you, and if I were to come up with an answer, it would have to be pretty draconian.
- Here's the answer—wait 20 years and we'll all be dead. Then there will be all this property that floods on the market, I presume.

13.11 Affordability is possible if people move away to work

- If you want affordability, you're back to mobility of labour. Go to Prince George. There are so many jobs there they cannot fill.
 - You can have your three- [or] four-bedroom house. You can have your young family you can grow up. You can have, at most, [a] 20-minute commute to work. But mobility of labour—people don't want to move.

13.12 Affordability can be achieved by developing housing for the people who already live here rather than increasing density

- I'm a long-time affordable housing advocate. We're still trying to do property development in the same old way, and [the claim] that if we increase density we'll get affordability [is inaccurate].
 - We've been increasing density in the City of Vancouver for the past 20 years and it's getting more and more expensive. As you increase density, the property goes up and the lower-income households are just paying the same amount for getting less and less housing.
 - We need to fundamentally change the way we approach housing rather than the trickle-down effect. We say, "Let's build a highrise so that maybe we can get 10 of the units to be affordable," instead of considering what we need and building to the existing demographics.
 - It's almost the same mismatch [as that] between the training and the people who need it. It's the people who are here in the housing that they need.
 - Do you see any way of turning [the] industry around so that it begins to consider the middle instead of at the higher end, and instead of marketing something to many who may not really want to live here?
 - We still have lots of empty units instead of attending to the people that are here as we develop housing.

13.14 Housing development incentives need to be aligned according to Vancouver residents' incomes

- There is widespread recognition that housing is a problem here [at all levels].
- The Urban Development Institute is responsible for housing development, and they are actively working with SFU on a project to consider a way we could get incentives better aligned across all aspects of housing development to better meet the needs of the incomes of people living here.
 - It's a difficult equation, and [there are] many challenges.
 - If you start to consider [whether] you can align the incentives better—add density where you can, reduce the time it takes to build [and change] the mix and the design—maybe there's a way to get a better mix of housing and housing types and help improve that affordability profile.
 - At the low end, however, you'll always need other levels of government at the table. Right now we're definitely squeezing out the middle class, and that's a real problem.

14.0 Real estate costs and taxes for businesses

14.1 Affordability has forced manufacturing out of Metro Vancouver

- Manufacturing [has migrated] out from Vancouver, where a lot of it used to be, through the valley going further and further out.
 - [The BC Technology Industry Association's] office is here in Vancouver, just a block away. A number of years ago, all our meetings were held downtown. Now, very few of our meetings are held downtown. They're held out in Burnaby, Surrey, Abbotsford and as far out as Chilliwack.
 - Why? Because of the migration of businesses out into the valley. They cannot afford the costs of business closer to Vancouver, from either an affordability or municipal tax point of view.

14.2 Municipal taxes need to stay low enough not to force economic drivers out of Vancouver

- Financially, B.C. is far better off [compared with] somewhere like Quebec on a financial basis. But from a municipal tax basis, you've also got to make sure that you are not forcing the economic drivers out of your area.
 - [It comes] back to the three-legged stool. You'll either weaken one of those three legs or get rid of it, and you'll have a problem.

15.0 Regional economic development strategies

15.1 Establishing a shared regional vision for economic development

- What is prosperity? What do we want? Where do we need to invest? How do we get the conversation off of just affordable housing? We heard about technology, and we heard about manufacturers and so on.
 - There have been numerous attempts to develop a shared vision for economic development in the Metro Vancouver region, and a companion strategy. And there's a bunch of reasons why those attempts never really led to very much.
 - Do you agree with the notion that if you don't have a shared vision, there's multiple ways of getting there, which is probably nowhere?
 - Do you agree that as a result of a lack of a shared vision, we have these skirmishes, whether it be chickens in backyards or pipelines, or are we hewers of wood and carriers of water for the rest of our days here, or are we something else?
 - Do we really need to reinvigorate this idea of developing a shared vision for economic development [and] for regional prosperity in a sustainability context?
 - If so, what would be some of the steps to take to develop that and to develop a companion strategy that marries the great assets we have to work with and where we want to go in the future?

15.2 Regional strategies require an understanding of the global economic environment

- I've been involved in some of those efforts to develop regional strategies, and I think it's really important.
 - I'm not sure how necessary it is to have a perfect regional strategy, but we live in a very global environment, and our competition these days in the 21st century doesn't exist between our neighbouring cities. It's not even competition anymore.
 - We need to [take] a much more sophisticated approach to understanding how global trade works, how the global environment works and how intricately tied it is to [collaborate] on positioning ourselves as a strong region. We are a very powerful region.

15.3 Regional economic development strategies require full-time collaboration

- At the economic development level, my colleagues and I collaborate on a regular basis on all kinds of different things. We don't do it necessarily in the context of a formal regional strategy. We just know it's important to do it on a full-time basis.
 - Until there's really strong recognition [from the elected official level all the way down of] the benefits of that collaboration, which means us acting as a region and interacting with the global environment, I'm not sure where that will end up.
 - I'm hoping that within the next couple of years we'll see another effort come forward to consider a regional strategy. It is important.

- When we do investment attraction, businesses don't care where the political boundaries are. They just want to know the best place to set up their business, attract their employees, whether it's urban, rural [or] suburban. That's what they care about.
- If we're really doing a good job, we're making sure they don't have to care about that [and] that they'll get to the best place.

16.0 The skills mismatch issue

16.1 There is a mismatch between skills training and industry requirements

- [There is a mismatch between the education of the existing talent coming out of universities, industry training apprenticeship programs and colleges and what is required by industry right now].
 - That is for the individuals that are already here, so we need to address that.
 - Unless those individuals can find jobs, they can't afford to live here, and they're struggling to live here even if they can find a job because of the affordability issue.

16.2 The growth of B.C.'s manufacturing companies is impeded by skilled labour shortages

- 64% of our members currently say that the growth of their [job-creating] companies is being impeded by the fact that they cannot find the skilled labour.
 - In this province, we have [an] unemployment rate just under 7%, and yet these companies cannot find the skilled labour they need.
 - Over \$10 billion of major projects coming down the line in the next few years will be looking for the same talent, [and] we already have a shortage of skilled labour.
 - That's a big issue, and there's a big mismatch between the unemployed and the skillsets that those companies are looking for.

16.3 Training community members to qualify for available jobs

- The skillset mismatch and unemployment [are] very interesting points that [are] being mentioned everywhere you go.
 - There are so many [unemployed] people in Canada and in Vancouver, and some of these people are very highly skilled.
 - What action needs to be taken instead of just talking about skill mismatch? Why can't we get these people who are part of our community and train them and give them the skills to take up these positions?

16.4 Our training programs often provide a skillset that is too broad

- Let me [use] an apprenticeship program as an example. Imagine a whole pie. That's what the individual is being trained on in the apprenticeship side. This is assuming the person's gone through an apprenticeship program that's of that speciality that [a company is] looking for. Let's say a CNC machine operator.
 - What that company needs is a skillset that is not as broad as that apprenticeship program, but is a much higher intensity in a specific area that the apprenticeship program hasn't covered. So that's where you're seeing a bit of a mismatch.
 - I'll give you an example of a company here in Metro Vancouver that has a CNC-type machine. It's the only one of its type in Canada. I think there's only four of them in North America.

- As a result of that, BCIT won't put a program on for training on that machine, because they need at least 20 people to put in a classroom to generate the revenue that they need.

16.5 SMEs cannot afford to train new employees out of apprenticeship programs

- The answer is training within industry. Look at it not [as] training the individual outside of that company that's looking for a job, but training the trainer within the industry to bring somebody in [the] company up to the level they need, who will then automatically bring in the lower-level individual that doesn't have the expertise on that higher machine.
 - The problem with training within industry is [that] 94% [of the companies] are [small- and medium-sized enterprises or] SMEs, which are defined as [having] less than 500 employees. In fact, in B.C., the average is around 25 to 50 employees. They don't have training programs, and most don't even have an HR department, so they have a problem doing training.
 - The provincial government will not consider training within industry. It looks at training outside, low-skilled unemployed.
 - There is a push system in the training environment that we have. It's not responding to what industry wants. That's why you're getting this mismatch.
 - We're producing 4,000 teachers more than there are jobs out there. What's wrong with this picture? But they will not go into industry and allow training within industry, because that's now subsidizing or looks like subsidizing industry. Until that issue is addressed, you will continue with this mismatch.
- That's why a company doesn't consider an apprenticeship program to hire somebody that they need. The statistics on people retiring are horrendous. [They] are taking 30 years of experience from a machine.
 - [A small] company cannot afford to hire somebody out of an apprenticeship program and then take them the number of years to get to that 30-year skilled level. Their productivity will drop tenfold in some areas as a result.
 - So what does it do? It looks for somebody that may have 20 years' experience. [That] means they're stealing from another company, or they're looking outside of the province, or they're looking outside of the country.
 - That's why you're seeing associations going to Ireland, trying to hire people in the construction industry—because they cannot find that level of talent here now.
 - Until that's addressed, you will continue with this huge demand for jobs and a highish unemployment rate.

16.6 Companies need to grow to build in their own training systems

- I mentioned the middle class and growing the size of companies. If we don't have more larger companies here, they won't have the sophistication to build in their own training systems, to have the HR practices necessary.
 - [It's] so important for us to look longer term as to how we support that, as growing our companies is a key theme.

16.7 Students are being educated within inappropriate fields at universities

- There's another side of this. Universities [are] being accredited like mad and churning out students who take journalism and art history and esoteric programs.

- I don't know what the engineering field is producing. I'm sure it's just dandy. But you have to have people that can fix a furnace, be a plumber [or] an electrician—things that are highly skilled, can be completely rewarding.
- Everybody wants to go and take art history. Do it on the weekends. I don't know [if anyone has] anything to say about that, and whether we're educating people incorrectly.
- On the flipside, we've had the benefit of hiring some great art history majors who have gone on to be fantastic [writers].

16.8 Students and companies need to take better advantage of co-op programs

- There's a real culture in a lot of universities for co-op programs, and everyone knows the examples at Waterloo. It's not just engineering and computer science. It's every discipline.
 - There's almost an expectation that if you're a student at that university, you'll do co-op terms through your whole piece. And that is the best apprenticeship. It doesn't matter whether you're an art history or an English major or what have you.
 - We need to embed that in our hiring practices with the companies that are here, [partly] because we have a lot of small companies that aren't sophisticated enough to know how to tap into the wealth of co-op opportunities that are there.
 - If we encouraged our students to seek co-op terms and changed how a lot of these programs work, so [that] you have a chance to work for a company whether you're a history or engineering major, that could make a huge difference in the onboarding process for people as they finish their degrees.

16.9 High schools need to make students more aware of trades as an alternative

- Part of that's an education process that goes back to high school. Kids [don't know] what is out there as an alternative. [They are] being pushed by parents to go to university—"it's the thing to do, it's what I want you to do," etc.
 - There are alternatives out there. If you're a certified welder, you can earn a huge amount of money. You can travel just about anywhere in the world.
 - It's strictly nine to five. At the end of five o'clock, you do not have any worries. You're not taking work home. You don't have to answer your BlackBerry or your iPhone for e-mails coming through at you all the time.
 - These opportunities [are] out there. Quebec does a pretty good job on that with a program where they go into the high schools. [They bring in] kids in high schools, grade 11, 12, plus those that have dropped out, to show them [the] alternatives with the idea of bringing those that have dropped out back into the school system [to go] on to a trade.
 - I'm not saying that the trades are the end- and the be-all, but I don't think kids today are being told what other alternatives are out there.
- I think as long as we keep calling it "trade," they will balk.

17.0 The role of small- and medium-sized enterprises

17.1 SMEs in the manufacturing sector are creating jobs

- The United States has recognized the need [to revitalize] their manufacturing sector, with a key reversal being to greatly expand efforts to support the competitiveness of small- and medium-sized firms.
 - It's the SMEs—the small-medium enterprises—that actually are creating jobs.

- These represent over 90% of manufacturing companies here in B.C.—slightly different to the rest of Canada at around about 84%.
- [There is a] much higher predominance here of small manufacturing entities.

18.0 Supporting the “home team” companies

18.1 We need to create a home team advantage for our local tech companies

- We could do a lot more to build a culture of supporting the companies that are here.
 - [We need to create a] home team advantage to the extent that our procurement policies and the things that we do in the public sector [and] private sector create [an] almost unfair advantage for the companies that are being built here.
 - We need to exert as much energy as possible [in] supporting the home team.

18.2 Canadians have a shared sense of fair play in their value system

- You said something pretty fascinating [about] “the culture of supporting the home team.” We don’t have much of that either as a nation or as a province.
 - At every level of government and [citizen], it’s the same thing. I don’t know how you crank that up, because if you don’t have [the] support of your community, all the talking in the world won’t advance the cause.
- One of the highlights of being Canadian is we all share in this sense of fair play. That’s probably the number one thing in our shared value system.
 - Fair play means if there’s a free trade agreement that says you must abide by the rules, we do.
 - Free trade normally says you don’t advantage one firm at the expense of another, and you certainly don’t want to violate anything that might lead to favouritism.

18.3 Local government and companies play active roles in the success of our technology sector

- If you consider a lot of the other economies, particularly in [the technology sector], you see a lot of evidence where governments and companies nearby play an active role in being first customers, in setting up test beds, in creating environments [that create] the conditions for winning [and] success for these sorts of companies.
 - I don’t think it just has to be technology. It’s evident in virtually every industry that we see here in the local economy. [The manufacturing sector] can probably attest to that as well.

18.4 The Okanagan Valley focuses on attracting new businesses instead of supporting its existing manufacturing cluster

- It is news to every economic development commission in this province that the largest composite manufacturing cluster west of Winnipeg sits in the Okanagan Valley, [which has] 47 different companies, hardly any of them competing against each other.
 - They’re all in different sectors, manufacturing composites. And yet there’s no support from the province or the economic development areas focusing on a cluster that we already have.
 - It’s much more focused on trying to attract new businesses and new sectors into an area instead of supporting the home team that’s already there.
 - [They do so to build] on that cluster, [get] that cluster to work together and [get] that cluster to work with the universities to take those companies to the next level and create further jobs and better technology.

18.5 Supporting the home team requires an understanding of local partnerships and collaborations

- I would agree we're not supporting the home team.
- On every level?
- It's important to have these kinds of conversations as it is such a big question.
 - When you add questions like “how do we best amplify and support what we know is really working and lift that up,” it's really important that we understand where we're at [and] consider these points of intersection.
 - Even if you can't create that whole broad, strategic plan, knowing the partnerships and the collaborations that are working and profiling that and lifting that up is part of how you solve these types of problems and keep moving forward.

18.6 Existing businesses and companies provide 70% to 80% of ongoing growth

- 70% to 80% of ongoing growth comes from existing businesses and companies. A significant part of our effort is doing exactly that—working with our local companies to make sure they're getting what they need.
 - [The Vancouver Economic Development Commission] interviews hundreds of companies a year to make sure we [are not only] showing them the love [and] that we really care about them being here, but [that] we are sincerely making every effort possible to connect them to all of the opportunities to stay and continue to grow here. That's really important.
 - The other portion of our time is focused on investment attraction, but when we say the core discipline of economic development is business retention, expansion and attraction, in that order, there's a reason for it.

19.0 Offshore jobs

19.1 Offshored manufacturing jobs are starting to come back

- A couple of years ago [President Obama asked the late Steve Jobs of Apple] a question about [the] offshore shipping of employment opportunities. Mr. Jobs' response to President Obama was, “Those jobs are never coming back.”
 - Was Mr. Jobs correct? Is he correct? Will he always be correct, or could there be some recovery of some of those jobs shipped offshore?
- Obviously there's a huge amount of offshoring that has been going on from North America. We're seeing some reversal of that now. Some manufacturing that had gone offshore is now starting to come back.
 - A lot of companies made poor decisions based [solely] on the cost of the actual manufacturing of a part of the product, as opposed to taking in the whole logistics cost.
 - Not only [do you] have inventory sitting at the manufacturer in the foreign country, you've got inventory that's now sitting on a boat that's coming here. You're not sure when the boat will get here, [or] whether there will be a dock strike in [either country].
 - All sorts of issues cause problems for just-in-time manufacturing, which is what's happening more and more.

19.2 Global mass-market supply chains are being shortened to reduce costs

- The companies in B.C. [are successful because] they're small, they're agile [and] they respond very quickly to customer demand.

- They usually have in-house design and can produce low-quantity-run products, not the mass production you're seeing that's gone offshore to places like China. But even some of that you're seeing come back.
- In the high-tech sector, you've seen a chip manufacturer in Japan go down, which just collapsed a whole load of production all around the world, because suddenly you couldn't get the component.
 - A lot of that's being rethought, and supply chains are being shortened up to reduce costs, because of reducing the timeframe necessary for the inventory.

20.0 Research and development

20.1 Research and development as a driver for growth

- My question goes back to the three drivers for growth—harvesting, mining, manufacturing or adding value. I worry that that list is a little stagnant. Should we add research and development or innovation as its own driver?
 - Do all of you agree with that? And if you do, whose role is [it] to foster that research and development? Is there a role for government, or is this something that we want industries to take up on their own accord?
- I mentioned the three economic drivers because it's a bit provocative and I want people to think. As far as R&D, what will you do R&D for? You're not just in a bubble doing R&D for anything and [everything]. It's got to be focused at something.
 - In the vast majority of cases, it will be focused at one of those three economic drivers. How can you get tar sands out without polluting the atmosphere? How can you transport goods [while eliminating] or at least reducing the environmental issue?

20.2 Manufacturing is the principal source of research and development

- Manufacturing is the principle source of an economy's R&D and innovation activity.
 - Here it represents over 42% of all private sector R&D. Over 42% of all R&D in the private sector is done through manufacturing.
- [For] manufacturing in general, [the] global industry output was 57 times greater in 2010 than it was in 1900.
 - In other words, manufacturing has grown far faster than the overall economy on a global basis.
 - The main reason for this is factories keep getting smarter in the ways that hair salons do not. This again is through a huge amount of R&D that's being done to be able to produce a product faster, quicker, and at less cost.

20.3 Company culture has changed from control and command to innovation

- The culture has changed for the majority of [today's] successful companies from one of control and command. You can probably see by my grey hairs and by my accent where I came from. I came from England. I left England because [it was] a very control-and-command environment, heavy union environment.
 - If you were working on a job, all you needed to know was your job. You didn't need to know what was happening to the left of you; you didn't need to know what happened to the right of you. In fact, you didn't even need to know what the end product was.
 - If you weren't doing a good job, the supervisor's job was to hit you over the head with a two-by-four. That was it.

- Today, the culture is changing from control and command to one of innovation. When I say innovation, it's trying to get every single employee to think for themselves and feeding that back to management [to find] a better, safer and more enjoyable way of doing the job and producing an even better product.
 - We have lost supervisors in a company because that's a threat to them. They're used to control and command. They don't want to sit and listen. They want to say to an individual, "This is the way you do it." And we trained our supervisors never to say, "This is the way that you should do it," or, "This is the way that I would do it."
 - The words they had to use was, "Have you thought of..." Because maybe they hadn't thought of something that they should have thought of before they [made] the change. And if they hadn't thought of that and they still discount the supervisor's opinion, let them do it.
 - They have to fail. They may succeed. Nine times out of 10, they do succeed. But that one time out of 10, you let them fail, because as soon as you override them, you'll start to stifle that innovation.
 - It is imperative for a successful company to change its culture to one of innovation, not just in the product, but in the processes it's doing every day. So yes, hugely important. And so that will change into R&D.

20.4 Opening innovation to a company's entire workforce introduces a deluge of product ideas

- One company here in Metro Vancouver had to reduce skillsets to [reduce] the number of new products it [had] to consider.
 - Yesterday they were looking at one or two new products a year that management were thinking of. [When] they opened it up to employees, they were looking at 20 new product ideas a month. They couldn't cope.
 - Which ones will work? Which ones should they spend their resources on? They came up with a whole lot of practices to hone that down.
 - There's an example of a company that's been hugely successful on the global market because it's suddenly allowing the whole workforce come up with the ideas, instead of half a dozen stodgy management. I don't know whether that helped.

20.5 Research and development and innovation are necessary across industries and market segments

- Whatever sector you consider, research and development [and innovation] should cut across all of that.
 - You have to segment your market and the jobs that you have in your local economy, but then you'd always want a piece of every industry to be looking at how to stay fresh, bring in new ideas and draw on that innovation.
- Keen on co-operation. All right.

20.6 Research and development has to be initiated at the research foundation level

- [A recent] article in the *New York Times* talked about a shifting stance on policy and the move towards reducing the budget deficit in the United States, [which will probably place] some of the programs the government has typically funded around core R&D and scientific advancement in general in jeopardy.
- Here in Canada, we've seen over the last year lots of reviews on R&D spending at the federal level. The Harper government's initiated lots of reviews on that.

- It remains to be seen what the outcome of all that is, but our view is that R&D doesn't just come from one place. A lot of the initiation has to be done at the research foundation level that the post-secondary institutions typically forge ahead with.
- That's largely funded by the public purse, taxpayers and both the federal and provincial governments. And that's a really key ingredient for some of the key advancements we see in a whole bunch of areas.

20.7 Small businesses need to invest more in research and development

- Industry has to also participate in all of that. Over the last decade, we've really declined in the amount of R&D expenditures we have as a proportion of all business expenditures. [That's] a testament to the size and scale of our businesses.
 - We have a lot of small businesses who don't invest in it nearly as much as they perhaps should. And that's why we have such a theme around building the middle class, because that will shore up our futures around that.

20.8 Industry, government and post-secondary institutions are responsible for driving innovation

- The responsibility for driving innovation rests in a combination of industry and government and also the post-secondary institutions to further this. We're probably missing some of the key links that deal with the commercialization of some of what we find.
 - There's lots of government programs that just fund the R&D level and are specifically designated around just the research part, but there's not nearly enough in support of getting these things out to market.
 - That's really where the opportunity is, especially with the number of small companies we have. How do we support them in terms of commercializing their goods, secure the home team advantage of some of the customers that are here locally [and] then find world markets for what we're actually developing?

21.0 The new economy

21.1 A new economy based on collaboration rather than competition

- A lot of comments [have] referenced [a] new economy. But frankly, most of the description and discussion I've heard has been the old economy speeded up a little bit and rehashed somewhat.
 - I will make one pitch for neweconomy.ca. It's a one-week event on Granville Island at the end of November.
 - [We] should have a lot of people there acting out and working out the principles of a new economy, which will not be based simply on shaping regional prosperity on competitiveness, but will [emphasize] the collaborative aspects of our economy that are severely underemphasized [and] under-noticed in our process.

21.2 Regional currencies

- All of you have spoken to shortening supply chains, supporting the home team [and] sustainability. In your particular fields of study, [are] any of your organizations currently studying network currencies, regional currencies, a Kootenay currency, a Burnaby currency, a Vancouver currency? Is that part of your mandate at this point?
- As in monetary currency? I can say [the Vancouver Economic Development Commission is] not.

- No? So flag it—the new economy is about new monies. Get used to that one. It's all coming. Neweconomy.ca.

21.3 The jobs and opportunities we invest in must allow us to take advantage of the new economy

- There's also access to employment and economic opportunity.
 - That's the type of quality and nature of the jobs that are created, and the importance of investing in new research and innovation so we can take advantage of the new economy.
 - What is that type of solution that could create that potential for everyone?

21.4 We need to invest in new-economy jobs for the next generation of Vancouverites

- [We need to invest] consciously in new-economy jobs, because that's really where the aspirations for a lot of us who have kids are.
 - We're looking at the opportunity to create the employment capabilities or capacity [necessary to] harness the creative- and knowledge-based resources that we already have here and create clean and new-economy careers for the next generation of Vancouverites.

22.0 The goal of growth

22.1 Defining how we want to grow

- [It has been presumed] that we need to continually grow the economy, especially through manufacturing, mining, other types of extraction [and] industries that require a lot of material throughput.
- Given that we are really on the edge or [overshooting] the world's ability to extract resources and turn [them] into waste in pretty short order, what is your picture of growth?
 - What are we growing to achieve, from a human perspective? Something that would actually contribute to the quality of life and not simply the standard of living, in a material sense?
 - What is your vision for prosperity? When you speak about growth, what are we growing towards, from a real human perspective and in terms of our ability to coexist with our environment?

22.2 Growth in a changing economy

- In terms of economic growth, it's not necessarily an assumption or supposition of constant growth. It is, however, important for us to focus on the fact that the economy and the planet [are] constantly changing.
 - It's really about focusing on the evolution of that growth, who's participating in that growth and who's supporting the production of goods and services in order to satisfy prosperity and the economy on a variety of levels.
 - It's a focus on not necessarily producing as much growth as possible, but making sure that the quality of that growth is the focus as opposed to the quantity.

22.3 Maintaining our quality of life in the midst of growth

- I just wanted to pick up on the quality. What does everybody here in Metro Vancouver want? What do you want in your quality of life?
 - The assumption is you want everything we've got now in the social services with education, hospitals and Medicare.

- All that gets paid from taxes, and taxes from the economic growth or the economic generating engines of this province. So one has to rely on those in order to reduce the taxes that are required to pay for all that.
- It's not growth at any cost, but it's certainly growth at a cost to uphold that standard or increase that standard if that's what the population wants to do.

22.4 Improving the standard of living for the next generation

- For the first time, we're looking at the generation after [mine]. I'm obviously a baby boomer, having a standard of living that's potentially less than the one I enjoyed, and that's for the first time. And I don't think that's good.
 - I want to see my kids have a better standard of living than the one that I had, as my parents did before me.
 - That will only come about by a vibrant economy that is producing wealth to pay those taxes to support that infrastructure.
 - It's not growth at any cost, but it's certainly at a growth to be able to afford the standard of living that you or the majority of people want in this province.

22.5 Growth will come as a result of building sustainable businesses

- As we kind look out into the horizon, the question of competitiveness and where growth will come from hasn't really focused on the question of sustainability yet.
 - I saw this great *TED Talks* video [on] this carpet company, where basically the company [transformed] from a net creator of waste into one that has very little waste.
 - [The company] has actually profited enormously from that undertaking. And it just happened to be a by-product of wedding sustainability into their practices.
 - Growth comes with a view of what the potential consequences would be if you don't choose the path of building sustainable businesses.
 - That's a vernacular we can really lead on here in Vancouver. Given the climates and how we think as a community, it's one of those areas that we can really wed into our business practices.

22.6 Vancouver must achieve critical mass to compete globally

- We've got the ingredients necessary to build to the next stage. But when you compete in this sort of industry, it's a global market. It's fiercely competitive and it's all about achieving critical mass.
 - Sustainability on economic terms requires that you achieve some form of critical mass, [which involves] creating, nurturing and really growing what you've got here.

23.0 Government roles in economic development

23.1 Federal and provincial government policies have helped Vancouver's financial prosperity

- It's not a coincidence that Canada or B.C. are doing so well relatively speaking to the rest of the world. A lot of it has to do with financial economic policies [of] the federal government and provincial government.
 - Whether you like the governments that are in power or not, [the policies they have put in place] have helped the situation phenomenally in comparison to other countries, even in comparison to other provinces.

23.2 Prosperity and competitiveness are achieved through integration with our governments, private sector, non-profits and businesses

- The concept of making ourselves more sustainable and economically prosperous—in other words, prosperity and competitiveness—should [involve] how we as individuals integrate with our governments, private sector, non-profits and businesses. Each of us [has] a role to play.
 - We are doing our part here in Metro Vancouver, and the City of Vancouver [is] trying to do [its] little pieces at the municipal level.
 - We do all of what we do at eight cents on the tax dollar. It's important for us to recognize what our limitations at a municipal or regional level [are].

23.3 Vancouver residents must communicate to their governments where money is needed and what their roles in economic development are

- Talk to our federal and provincial governments about the importance of transit, housing, thinking long term and helping those of us at the local level who always hear more clearly than our federal and provincial governments. We're the closest and most accessible to all of you.
 - Don't raise your property taxes? Well, maybe for some things. If it's important to you, let us hear it with those voices.
 - Is it important to have a little bit more money for housing? Is it a little more important to provide the types of training and the coordination that we need for our very successful high-tech sector? [From what I've heard, the small companies] can't do it on their own. Is it the role of government to step in? Can we do more of that at the local level, provincial, federal?
 - These types of things are all possibilities, but we need to hear your voices to help us make that happen.