

Cascadia Innovation Conference 2018

Idea-thon Summary Report



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Executive Summary

Vancouver, B.C., Seattle and Portland have much in common: unsurpassed beauty; proximity to Asia; and market-leading capabilities in key economic sectors. By linking these cities, the Cascadia Innovation Corridor will create opportunity and prosperity beyond what they and their surrounding regions could achieve independently. Through cross-border collaboration, the region can be the next global innovation ecosystem and a leader in solving some of the world's toughest challenges.

The third annual Cascadia Innovation Corridor Conference convened on October 9-10, 2018 in Vancouver, British Columbia. Building on the success of the previous two conferences, which established new partnerships, began building the network, and increased awareness of the opportunity, this year's conference was about charting a path forward for the Cascadia Innovation Corridor through to 2021. Following the September [announcement of a bi-lateral steering committee](#) comprised of business, academic, non-profit and public sector leaders, this year's conference featured a number of keynote and panel speakers, but also offered delegates an opportunity to participate in a series of Idea-thon sessions.

The Idea-thons covered a broad range of topics reflective of the steering committee priorities and included a diverse mix of cross-border attendees from industry, academia, business associations and other stakeholders. Attendees generated ideas for moving the Cascadia initiative forward which included a number of cross cutting themes:

The committees are not starting from scratch: The power of the Idea-thon approach was evident through the examples of existing best practices that can be leveraged across the broader industry, and across the border to lead to greater collaboration. In addition to sharing within the industry the committee structure can be used to share across industries as well.

Cascadia's many strengths are not widely known outside the region, and in some cases within: There was a recurring theme that it is difficult to sell the strengths of the region if there isn't a common understanding of what they are. These strengths need to be identified and crafted into a narrative on a stream by stream basis.

Open data is key: There was a general theme that data needs not only to be collected, but shared for the common good. The fact that those with data regard it as a competitive advantage runs contrary to this theme, and participants recognized that sharing will only happen if anonymization methods exist and the benefits of sharing are clear to the participants.

Governments need to support sustainability: There was no disagreement on the importance of sustainability, but industry needs support in making it happen so that the front line organizations do not disproportionately bear the costs.

The broad challenges, and ideas for overcoming them, provide a rich agenda for the various committees to tackle over the next year. In addition to generating ideas, there was also a strong show of support from attendees to help move the agenda forward, and many volunteered to participate. Attendees recognized that momentum has been building for Cascadia since the first conference in 2016, and it will be important to make progress over the next year to keep this momentum going and demonstrate concrete progress in 2021 to coincide with the 100th anniversary of the Peace Arch and its message of "May these gates never be closed".

For more information about the Cascadia Innovation Corridor initiative, visit www.connectcascadia.com.

Objectives and Approach

The objective of the Idea-thon component of the Cascadia 2018 conference was to harness the power of the attendees and generate ideas which will assist the committee co-chairs in moving the Cascadia initiative forward. Secondary objectives were to identify and connect individuals and organizations keen to step up and contribute to a strengthened Cascadia region. There were six Idea-thon sessions, each being executed in 90 minutes and each reflective of a steering committee priority:

- ▶ Higher Education and Research Excellence
- ▶ Transformative Technologies
- ▶ Life Sciences
- ▶ Sustainable Agriculture
- ▶ Retail/Financial Innovation
- ▶ Transportation, Housing & Connectivity

The week prior to the session, attendees were asked to log onto an online voting tool and suggest challenges which must be overcome in order to achieve the Cascadia vision. During the session, attendees were given an opportunity to revisit this list, make additions and vote on the challenges which they saw as most significant. The Idea-thon focused on the top ranked challenges, asking participants to suggest ideas to overcome the challenge, and then voting on these ideas. Finally, the top ranked ideas were discussed by the group in order to flesh out additional details. Each session was facilitated by a team of up to 3 EY professionals: one lead facilitator, one co-facilitator operating the online voting tool and one co-facilitator taking notes. The session was also supported by the Cascadia steering committee co-chairs for each of the respective topics and was attended by 25-50 attendees depending upon the topic. The work related to the Idea-thon facilitation and report has been performed *pro bono* by EY as part of our commitment to the Cascadia initiative.

The body of this document contains the top ranked challenges and ideas for each of the streams, as well as the key points raised during the session. The key points are presented in this document as they were recorded in the session, with only light editing. The full electronic record of the session, which includes the challenges and ideas that were not discussed due to time constraints, are presented in the Appendix. In the case of the Retail/Financial Innovation session the online tool was not used to capture ideas in the session—we updated the tool after the fact based on the notes from the session.

The feedback contained in this report will be shared with the members of the Cascadia Innovation Corridor Steering Committee as they build a multi-year work plan for the initiative. **Session Summaries:**

Higher Education and Research Excellence

Transformative Technologies

Life Sciences

Sustainable Agriculture

Retail/Financial Innovation

Transportation, Housing & Connectivity

Higher Education and Research Excellence

Top Challenge #1: Determining the best way for institutions to collaborate across the border before actually starting to collaborate so that efforts aren't wasted

Top Ideas and discussion from the session:

Identify key offices in each institution that can coordinate the process

- ▶ There are already several one to one connections across institutions that are topic specific (i.e. Innovation) and these can be leveraged / expanded upon.
- ▶ It is crucial to attract individuals who are enthusiastic to drive the process or initiative will not be successful.
- ▶ Opportunities for collaboration could be posted/managed online. Create a portal/web-presence for all participating institutions and their interests.
- ▶ Small focus groups could serve as a starting point.
- ▶ At present, there is no one within each institution whose job is to foster cross-border collaboration. Maybe we need that to drive collaboration forward? At the same time, this will require executive buy-in, which is not always easy to obtain.

Establish seed funding for shared projects ideas where individuals at each institution may access to participate in joint projects. Funding may support students or Post-Doctoral Fellowships to support the project development. Transferability of funding across the border and working with industries across the border need to be figured out.

- ▶ Often, the challenge is that research projects are completed but it is too early for funding. There are some funding options presently available, and existing mechanisms we may be able to explore, including UW's 1.5 million funding, UBC's mobility grants to increase connectivity across local areas, and programs that match industry funds with needs, but the corridor could benefit from more seed funds.
- ▶ Not sure where the money would come from, but having joint funding / bi-national funding could get people started and enable prioritization according to where the largest opportunities are
- ▶ While there are many point connections, It is hard for individuals to get together to identify priorities. Perhaps having more of such conferences, or any way we can get people together more would be good.
- ▶ The "Outside in" approach - an example in the Oregon manufacturing industry sector: industry members work with institutions and define problems for participating institutions to solve. Grew quickly from 7 industry members to 18 industry members.

We may be geographically and philosophically close, but our educational systems are quite different in how they operate, and we should develop a thorough understanding of how to navigate (via key point people) these different systems before we can successfully move forward without excessive paperwork slowing the process down.

- ▶ Degree programs take a long time to build - are there ways to be more entrepreneurial and focus on current pressing talent needs to make a difference quickly.
- ▶ Perhaps having MOUs between institutions can help increase cross-border collaboration, particularly because degree programs have different accreditation processes, especially between the US and Canada.
- ▶ Encourage portable and stackable credentials so that students of all ages can identify needs and pursue such credentials at any institution.
- ▶ There is an existing format - COIL (Collaborative Online Learning) courses, where two or more classes are taught side by side and students get together online to collaborate. Could we get 10 or

more institutions within the Cascadia Corridor to do so? This could also enable faculty to come together and get to collaborate. Rather than re-inventing the wheel, why don't we leverage something that's existing to help solve this challenge?

Top Challenge #2: Increasing research collaboration between industry and academia

Top ideas and discussion from the session:

Work with industry to have industry propose key challenges in industry which need to be addressed rather than academics defining the problems which are interesting to them.

- ▶ True collaborations last through the ages and it is not easy to form these collaborations.
- ▶ Within the US, the Global Innovation Exchange (GIX) brings industry and students together to innovate on both local and global challenges.
- ▶ Finding the right industry person (connector) is key.
- ▶ Rather than working with specific businesses in developing IP, there is also an opportunity to work on general solutions that create best practice ideas.
- ▶ Perhaps post-secondary institution and industry partnerships could also be created through problem solving workshops.
- ▶ Different size institutions have different mandates and some industries may assume that engaging academics takes time - an open mind and approach is needed.
- ▶ The big challenge with many institutions is that they do not do a good job positioning their true strengths. Spending more time doing that and communicating it to industry could help facilitate such collaboration.
- ▶ There is also an opportunity for micro businesses who can aggregate responses and look at clustering to tap into challenges to solve.

Define our core research strengths for the Cascadia region and position ourselves accordingly with relevant industry partners

- ▶ As an example, "population health" is a strength - we are all affected by forest fires in the Cascadia region, and for topics like air quality, how forests are changing etc. research is strong. We should build on research strengths that leverage common issues across Cascadia.
- ▶ We should self-organize around problems and identify what social challenges need to be solved.
- ▶ We should think of Cascadia as a region and collaborate rather than compete internally.
- ▶ Perhaps we can also look towards industry partners with a cross-border presence and position our post-secondary institutions as a place where industry can access cross-border talent in a broad range of disciplines.

Challenge 3: Connecting innovation ecosystems across Cascadia

Top ideas and discussion from the session:

Can we define the collective strengths on both sides of the border so that they can attract investments from outside? We need a good roadmap of what the complementary strengths are on both sides of the border before trying to connect them. Businesses outside the region do not yet view it as a coherent whole - this is one of the goals of these Cascadia conferences.

- ▶ This is truly a challenge - Universities let academics be good at what they are, so it becomes difficult to down vote topics of focus. Strengths need to be differentiated against other organizations, and this is a huge opportunity, for example with Data Science or Artificial Intelligence, and we should pick some of these strengths and pursue.

- ▶ Both academia and industry should identify complementary strengths and focus on those.
- ▶ Maybe we should think about how we can intentionally work with academia and industry to identify and build/focus on opportunities that can place us as leaders around the globe.
- ▶ We could also look at and identify strengths that DO NOT come out of the universities, but rather, the Cascadia region's cities themselves.

Innovation ecosystems must include discussion and focus on human health, wellbeing, rights, equity and other social issues, not just data or tech

- ▶ Must find funding to ensure institutions contribute to a corridor we want to live in.
- ▶ Encourage researchers to talk to both people from industry and those for live in the corridor to ensure these social issues are top of mind.
- ▶ We need to have social science institutions at the table, and we need to have conversations that are relevant, meaningful dialogue that is mixed, and we need to encourage diversity.
- ▶ Portland's sustainable city program as an example: the focus was not just on Technology, but also social science and urban livability.

Transformative Technologies

Top Challenge #1: Top Challenge #1: Distinct gender gap in the field of technology

Top ideas and discussion from the session:

Increase exposure to technology for girls at an early age.

- ▶ Expedite early age school curriculum to eliminate gender bias later in the workplace. The focus should be coding, engineering, math, and sciences.
 - ▶ Set targets for schools and track (e.g. number of female university applications for STEM)
- ▶ Provide government incentives (ie tax credits) to support technology in K-12 curriculum.
 - ▶ With a focus on technology for girls and addressing the gender gap, we effectively begin to solve for the talent shortage in challenge #2 below.

Adopt a corporate environment that fosters more women in technology.

- ▶ Adopt a corporate culture of sponsorship vs. mentorship to support women advancements.
- ▶ Sponsors are there to help promote and advocate for women in the workforce, specifically senior management positions. Mentorship is more about work relationships, not a 'hand up'. As a Sponsor you are an advocate, as a mentor you provide guidance on how to do the current role as effective as possible.
- ▶ Set national targets for technology positions filled by women and track against targets.
- ▶ Adopt a culture of 50/50 representation of female / male on board of directors for tech companies.
- ▶ Create a structure and programs that allows women to stay current on job/skills/technology while on leave so that the transition back into the workplace is less daunting.
- ▶ Leverage industry philanthropies to invest in training hubs for focused technologies. This will also serve as an opportunity for training under-represented groups and influence the talent shortage challenge below.

Top Challenge #2: Severe talent shortage in technology

Top ideas and discussion from the session:

Adopt a multi-faceted approach to maximizing domestic workforce through outreach to under-represented populations, more seats for post-secondary, and apprenticeship.

- ▶ Leverage the underemployed workforce by adopting a technology apprenticeship program where organizations can develop talent through on job-the-training and guidance. The program will become a natural pipeline for new talent.
- ▶ Create cohort groups in organizations for people with similar 'personas', for example; ethnicity, parents of young children, school alumni, etc., in order to create support structures and foster talent retention.
- ▶ Opportunity for re-training existing workers whose positions are being displaced by technology.
- ▶ Leverage philanthropic resources to target under-represented workforce for post-secondary opportunities in technology.
- ▶ There may be an opportunity to jointly brand and market the Cascadia region to attract talent, capital, and jobs globally.

Increase technology exposure and opportunities for K-12 students

- ▶ As a region, our values should include a strong focus on technology in K-12. This should be supported by all sectors (Government, Education, Industry, and Philanthropy).
- ▶ There's opportunity in VR software for education, how can we get this technology in front of more educators and students and demonstrate the benefits in the curriculum.
- ▶ We have amazing youth who are extremely tech literate and are deep in the arts, sports, and entrepreneurship. We need to understand how to nurture these passions in combination with technology in order to increase their future opportunities in the industry.

Top Challenge #2: Transformative technologies is too broad an area to make progress without focusing on a few key technologies.

Top ideas and discussion from the session:

Determine our shared technology strengths, assets, and areas of common interest within the region. What we are excited about may not be our biggest area of opportunity.

- ▶ Suggest funding a 6 month study to analyze where there is collaboration happening now and where the region shares mutual strengths, opportunities and tools for collaboration in the future.
- ▶ Identify mutual social/environmental/community issues that could be solved by technology e.g. green technology, sustainable energy and climate change are known areas of mutual opportunities and create an identity for the region by developing technology innovation to solve these issues.
- ▶ Is there a technology that is a linchpin that others can build on? For example, cloud might be a good start and can be leveraged for AI and ML down the road.
- ▶ Technology sector must connect in and have better integration between other sectors. How does technology become a driver of other sectors in the region?

Build a catalogue of data sets and attributes so that there can be analysis of areas of overlapping interests.

- ▶ We could start with Forestry or Climate research as there is strong data on both sides of the border (e.g, wildfire data).
- ▶ Identify not-for-profit organizations who may have data to share and determine what type of data is currently available that the region could leverage.
- ▶ Data formats could be standardized* in anticipation of combining and amalgamating data to progress AI/ML technology.
- ▶ The data could be presented by permissions or anonymization to overcome privacy issues (ie, healthcare, financial).
- ▶ We need to ensure organizations with intellectual property see real benefit by sharing their data. The idea of data protectionism is counter intuitive to the progress that needs to be made.

*Ian Simm volunteered to lead starting the standardization of data formats / parsing / categorization

Top Challenge #4: No clear owner to move ideas forward

Top ideas and discussion from the session:

Define clear roles and accountabilities for all stakeholders; government, academia, philanthropy, and industry. Some stakeholders can advance initiatives through a funding role if there was better collaboration and communication across the region.

- ▶ Philanthropy (ie, Vancouver Foundation) can play a significant funding role with clearer direction and understanding on how to support.
- ▶ Create a vision to encourage investment in the Cascadia region considering the personal wealth creation in the last century.
- ▶ Create task forces or sub-committees to meet more frequent check-ins/collaboration throughout the year and report on progress.
- ▶ Establish a joint federal funding opportunity between the National Science Foundation (NSF) and National Sciences and Engineering Research Council (NSERC) for binational research grants.
- ▶ The Canadian Digital Technology Supercluster and Global Innovation Exchange (GIX) exist and could help.

Life Sciences

Top Challenge #1: Identifying New Opportunities for Collaboration

Top Ideas and discussion from the session:

Identify key research and resource strengths in each region

- ▶ The field of Life Sciences is very broad and diverse, capturing the entire span of “What is health”, and consisting of universities, non-profits, innovative start-ups. Before we can effectively collaborate, we need to have a complete view of our own ecosystems
- ▶ Cascadia hosts key resource strengths such as Amazon and Microsoft - we should look into how they can be leveraged for Life Sciences projects
- ▶ There are many different angles that could be taken, but they need to be broken into manageable parts to identify what knowledge and talent is available
- ▶ Access to innovation is a talent of both regions - Hackathons could be a way to help revolutionize the industry and bring more fresh ideas

Create a united effort to identify and drive collaboration

- ▶ There is no shortage of opportunities to collaborate, however there is a shortage of organizational bandwidth to follow through on opportunities. The right organizers need to be in the room to get things going - what is the big picture, and who is not in the room today, that should be? Can we bring more companies into this discussion, beyond big organizations like UQ, UBC, Fred Hutch, BC Cancer.
- ▶ Right now, it's difficult to make progress with sector silos. Clear leadership for all Cascadia collaboration, with buy-in from both regions is needed to drive structured collaboration. This could be done by creating a supporting secretariat instead of funding conferences.

Decide on large, visionary shared goals

- ▶ Life sciences is often overshadowed by big tech - we need to create large initiatives to help restore prominence.
- ▶ Cancer treatment is a good model for effective collaboration, and shows what can be done when there is a unifying theme. Other goals such as childhood diseases, or management of pain or chronic disease, could be similar banner issues.

Top Challenge #2: Collaborating on policy, talent and capital

Top ideas and discussion from the session:

Identify sources of funding for collaborative approaches to overcoming common challenges

- ▶ United leadership, data approaches and the creation of bandwidth to focus on collaboration all require access to capital. An integrated mega-cluster / region for Life Sciences, with an incentive package, could help drive innovation.
- ▶ Explore solutions to encourage the creation and bring the attention of Venture Capital funds to the Life Sciences sectors

Encourage regional policy that supports collaboration

- ▶ Government policy can create the framework for brand awareness that will help launch collaboration projects onto the world stage
- ▶ Data sharing is largely framed by policy, support and information is needed for the respective governments to be able to facilitate the sharing of sensitive data across systems.
- ▶ In order to create a larger cross-border enterprise, infrastructure will be needed around credentialing, ability to work in other regions, etc., and a unified vision from Cascadia would have support the Governments processes.

Remove tax barriers to cross-border collaboration

- ▶ Bring the impact of the Life Sciences sector to BC's economy to the attention of the Government and Premier - Life Sciences is larger in BC than the film industry and could be one of the top 5 priorities in BC and WA.

Challenge 3: Facilitating cross-organizational access to data; data governance

Top ideas and discussion from the session:

Identify where support is needed from the government to facilitate data sharing

- ▶ Given the sensitivity around healthcare data, it will be necessary to see what sort of policy support can be found to facilitate the creation of effective shared databases, and other aspects such as credentialing.

Explore ways to create and use shared databases

- ▶ Every time we get together, we have to rediscover what everyone is doing. A database of projects is needed to identify natural clusters and areas of overlapping research, possibly using cloud technology. We could also share things like faculty profiles
- ▶ There may be solvable problems sitting on top of the data we have already, where each region, or even different groups within the region, only have part of the picture. Big data solutions could point to things we haven't thought of yet.

Sustainable Agriculture

Top Challenge #1: How do we harness transformative technologies to accelerate progress in sustainable agriculture?

Top ideas and discussion from the session:

Bringing in people from diverse industries to share ideas on how to integrate technologies into agriculture - like a hackathon, but for agriculture.

- ▶ R&D is only applied to a small portion of the agricultural lifecycle.
- ▶ Adopting an interdisciplinary approach could allow agriculture to leverage sustainable solutions that have been developed in other industries to solve agricultural problems. An example of potential interdisciplinary gains is leveraging the strides in construction and architecture to improve greenhouse sustainability at the building level.
- ▶ Investing in demand solutions that increase the market share of sustainable agriculture amongst all food systems can allow sustainable agriculture to gain more attention and subsequently more funding for further innovation and integration of technology.
- ▶ Utilizing hackathon events that focus on viable, sustainable agricultural solutions. The hackathon structure will allow for the sharing of ideas on how to integrate technology into sustainable agriculture. One strength of using hackathons is that they can integrate already developed technologies while also potentially giving rise to new ideas and new technologies that have a proof of concept.

Bring big data to agriculture by creating a foundation and framework that allows farmers to gather, collect, share, and analyze data to create more sustainable solutions.

- ▶ The world of agriculture needs to be digitized. The use of paper copies and manual tracking needs to give way to the world of digital tracking and better systems for data.
- ▶ Before hackathons can be considered in the conversation, the infrastructure for data gathering needs to be in place.
- ▶ Using California as an example, widespread and readily available data can be leveraged with analytics and visualization to better track on-farm usage, outcomes, and waste.
- ▶ Adopting a cooperation-versus-competition mindset when it comes to data and sustainability can foster sharing and accelerated innovation in sustainable agriculture if all farmers have access to data and data-derived best practices to make their farms more sustainable.
- ▶ Farm OS is a shining example of an open-source data platform where young farmers are sharing data from around the world to fuel sustainable agriculture innovation across borders. This could be leveraged in the Cascadia region as there are tangible benefits being realized that the Cascadia region could share and contribute to.

Top Challenge #2: How do we balance critical environmental protection concerns with a viable agricultural economy?

Top ideas and discussion from the session:

"Drowning in data, starving for knowledge." The challenge of tying technology and management innovation to measurement and real world improvement of sustainability outcomes (on-farm and ecosystem level).

- ▶ Balancing a viable agricultural economy and critical environmental protection concerns would benefit from improved tying out of problems, solutions, actions, and outcomes and gathering accurate data.

- ▶ Improving practices to tie out management of resources to measurement of outcomes can help shed light on what is working and what is not working.
- ▶ The industry would benefit from shifting the burden of proof for introducing chemicals into the environment from “is-dangerous” to “is-safe”. Effects will not be seen for years and tying out the environmental and ecological effects could take years and is not a safe option for new chemicals.

Recognize that land use is tied to land value, which legislation impacts greatly. Understand drivers of demand for competing values in environment and food production.

- ▶ Farmers and decision-makers need to come together with other stakeholders of the environment so that policies that affect the food system are made with proper consideration to how legislation can impact all parties.
- ▶ Stakeholders should come together to define what issues are affecting the environment and food production, define who is impacted, and define the burden and responsibilities of those involved.
- ▶ Farmers are reluctant to gather and provide data for innovation because it may expose them to additional risks.
- ▶ We should shift the discourse from placing burden of blame exclusively on farmers and the agricultural community once threats are identified.
- ▶ An example of where this is an issue is cranberry farming and data gathering on sustainable practices. Cranberry farmers are reluctant to gather data as the burden of improving their practices falls exclusively upon them even though there are more stakeholders impacted than just the cranberry farmers.

We need to put the environment first; create an environment that supports the dual objectives of environmental stewardship and agricultural viability.

- ▶ There are small-to-medium sized farms that are excelling in ushering a “new-age” of agriculture. These “craft farms” are modern farms run by highly-educated, young people from diverse backgrounds who are embracing digitization and new methods of performing old tasks. These “craft farms” can be used as an example that shows modernized farming can lead to an engaged, satisfied workforce with optimized, sustainable farming practices.
- ▶ Other examples around the world can be used to highlight the benefits of proactive innovation before times of crisis. One example is the 3 year drought in South Africa which forced farmers to reconsider what was necessary for agriculture and innovate in 3 years to ensure their farms would still be able to produce.
- ▶ Proof-of-concepts exist that show environmental stewardship and agricultural viability exists; the challenge is engaging local industries to follow before it becomes absolutely necessary.

Top Challenge #3: How do we excite and engage the workforce for sustainable staffing in the future?

Top ideas and discussion from the session:

Opportunities to expose K-20 students to agricultural innovation, including non-traditional opportunities. Excite future innovators who otherwise wouldn't see agriculture as a viable field of employment.

- ▶ All subjects can be taught through the lens of agriculture (e.g soil can be used to teach biochemistry).
- ▶ There needs to be a shift in the education curriculum across the Cascadia region that emphasizes that agriculture is more than just planting and picking carrots in a field for the rest of one's life.
- ▶ Embedding agriculture into education from the beginning can facilitate through innovation once false perceptions about modern farming are brought down.
- ▶ Young people need to know that careers in agriculture exist and include more than manual, repetitive labour.

- ▶ Pilot programs in the Delta school district in BC that include agricultural concepts and hands-on activities can be used as a starting point for developing curriculums that fully integrate agriculture across the Cascadia region.

The forestry industry can be a useful model in pivoting agricultural career awareness for the next generation.

- ▶ Many of the non-conventional farm careers attract players from the forestry industry.
- ▶ The forestry industry has done an excellent job in staying ahead of the situation agriculture is currently in and has been able to keep young people aware that forestry is more than just planting, cutting, and processing trees.
- ▶ Lessons learned from the forestry industry can be leveraged in agriculture to shift awareness and generate interest in the future workforce.

Retail/Financial Innovation

Top Challenge #1: Creating a cross-border business environment conducive for start-up growth.

Top Ideas and discussion from the session:

Allow for easier adoption of software & tech products within the Cascadia region.

- ▶ Within the software industry, a notion exists that in order to be credible within the Canadian market, companies must have proven themselves already in the US market. This can take the form of successful implementations and case studies, but in each case, this notion discriminates against smaller startups who don't have the financial or operational resources to tailor products to the US market. For example, different US & Canadian banking regulations pose a major challenge to cross-border expansion for startup fintech companies, and therefore, a targeted approach to dispel this notion is crucial for the growth of startups in Cascadia region.
- ▶ It was recognized that data, and particularly market data, is key to targeted product development, and attraction and retention of customers. A discussion was held regarding the value of the data generated to support scaling of small and medium enterprises, and whether the opportunity exists to alleviate data sovereignty restrictions.
- ▶ Furthermore, regulatory concerns play a crucial role in the slow cross-border fintech adoption. With the customers in this industry (i.e. banks, insurance companies) tending to be relatively risk-averse, this combination of needing significant size & having fully compliant products to both CAD/US regulation significantly hampers innovation in the space. This approach forces substantive investments into compliance from a seed stage, and much of that capital could be repurposed more effectively into expanding the product development & customer experience teams.

Establish a cross-border or shared "sandbox" prototype for fintech and retail products.

- ▶ This approach intends to remove certain state and provincial regulations in order to allow for product testing up to a certain user threshold (ie. 10-20k people maximum) for a certain period of time. Other restrictions could be placed on the program itself, but the goal is to foster a fintech incubator which helps to alleviate the fear of non-compliance.
- ▶ This challenge is applicable to the retail industry as well, but the aforementioned size, the cross-border disparities, data sovereignty restrictions, and burdensome compliance statutes are most applicable to fintech companies vs. startup companies in the retail space, who have a bit more license to be creative with their product offerings.
- ▶ This allows for product development to be emphasized and enables startups to re-shape their current offerings based on customer feedback in a significantly risk-reduced environment. This program was brought to fruition in Arizona on August 3, 2018, and by multiple accounts, this has been a clear success in regards to facilitating the development of various fintech products and services.

Perform a deep dive on industry 'pain-points' to identify and prioritize areas of focus.

- ▶ A recommendation was made to work with industry to gain a clear understanding of the pain points, particularly for small and medium enterprises struggling to scale.
- ▶ The example given was to identify the 'pain points' retail organizations have in scaling, that could be addressed utilizing financial innovations.
- ▶ The challenge faced by the participants of the discussion was identifying the linkages between financial innovation and retail innovation, particularly when it came to the joint discussion in the session. Pain point resolution matching between retail and financial was identified as one method to resolve this, and was identified as a way to better direct and focus 'innovation' conversation.

Top Challenge #2: Developing regional brand differentiation for Cascadia in order to drive better customer experiences.

Top Ideas and discussion from the session:

Develop a clear idea for what differentiates Cascadia globally.

- ▶ In our discussion, sustainability and green technology were highlighted by many participants as regional differentiators. Whether it be through our retail stores having an environmental focus (ie. MEC) or simply the economic make-up of the region, concepts such as conservation, preservation, and the triple-bottom line remain at the forefront of the Cascadia business mindset. On the product side, our discussion led to themes such as quality, performance (raised in the context of technical outdoor apparel) and intelligence defining the regional goods and services. In short, the Cascadia region needs to continue to brand itself around sustainability and quality in order to foster a positive regional perception within North America and beyond.
- ▶ Strong regional branding within Cascadia is critical to help connect with the end users of products and services. As David Labistour of MEC stated in our session, "The goal of retailers and fintech companies alike is to sell products that enhance people's lives, not just to sell things." As such, we live in an age of data and personalized services, and understanding regional values and mentalities with Cascadia strengthens the position of businesses to truly focus on the customer and provide the experiences that are most desired.
- ▶ A need was therefore identified to understand what the unique values of Cascadia are, in relation to its people and its industry. A study to identify these common values would assist branding the Cascadia region for all identified focus industry areas (I.e. education, agriculture etc.), attracting and retaining talent (per challenge 3 identified below), and attracting, retaining and scaling organizations within Cascadia.
- ▶ A particular focus today is platform-based retail expansion. Retailers must now offer an experience to their customers, the act of simply transacting products is not enough to develop brand loyalty. A common trend is to collaborate with other providers of lifestyle services using the company store or domain as a platform, but the legal and regulatory restrictions often stifle the innovation. Thus, a focus for Cascadia must be to allow to these partnerships to develop and grow, and this sort of business-to-business partnership could differentiate both the region and the various companies from those found in other parts of North America.

Top Challenge #3: Developing a sustainable and technical human-capital talent pool within the Cascadia region.

Top Ideas and discussion from the session:

Develop a talent pipeline to allow Cascadia to differentiate itself globally and attract and retain talent.

- ▶ There is a market shortage of technical talent who can apply analytical techniques to real-time business problems, and one approach to solve this is to collaborate with universities, researchers, and institutes in BC & Washington to help collectively solve private sector problems.
- ▶ There is a need to create pathways for post-secondary students to provide the right talent to the retail and fintech sectors. A key element is ensuring that post-secondary students graduate with skillsets that are "business-ready", rather than relying on businesses to bridge the education/career gap. This could be by way of internships, programs, skill development workshops, and overall industry-to-campus exposure.

- ▶ Furthermore, it is imperative for Cascadia to support businesses/industries to help them gain their own clear understanding of what career paths will look like, to be able to attract and provide the right development for staff, and allow for a clear conversation around their career expectations.
- ▶ Lastly, it is crucial to ensure that talent drain to the East Coast is less prevalent by offering an enticing value proposition to potential skilled labour in the region. Cascadia needs to develop a value proposition that allows for attraction and retention of top talent and the movement of people into city-based innovation hubs (as opposed to working remotely).

Transportation, Housing & Connectivity

Top Challenge #1: How can the issue of affordable housing be improved in the Corridor?

Top Ideas and discussion from the session:

Leverage zoning bylaws to address the “missing middle” for developers.

- ▶ For developers, there is desirability in building high end housing because of profitability, and low-end housing because of available subsidies. There is however, a lack of support for providing affordable housing (in the middle): Incentives are lacking for developers to build housing targeted towards the middle tier.
- ▶ When rezoning to residential, cities need to have policies in place that specify a certain percentage of development must be designated to affordable housing.
- ▶ There is a need to create appropriate zoning policies in municipalities to determine what the right amount of multi-use versus residential housing is.
- ▶ Around the high-speed rail, give private firms development rights based on specified development objectives (i.e., 40 % affordable housing along the Corridor).

Encourage workforce housing whereby private companies purchase or subsidize the cost of locating employees near to their headquarters.

- ▶ Explore partnerships between both public and private organizations to the establishment of workforce housing.
- ▶ Look to examples at:
 - ▶ City of Penticton is holding a conference to bring together impacted stakeholders to try and facilitate conversations between all different groups and determine if individual needs can be met as a whole group.
 - ▶ City of Banff - To own or rent property in the city, an individual must also work in the city.
 - ▶ Facebook is taking the lead building rail because they need to be able to move large numbers of workers.
- ▶ Examine the costs that private organizations are incurring to move workforce across districts. For example, Facebook has entered into negotiations with San Mateo County Transit district to improve a rail bridge to access potential employees in the neighbouring county. Are these costs greater than a public-private partnership designed to establish designated workforce housing?

Create multi-nodal cities that are diverse outer-city centers. These nodes outside of the central area will increase the desirability of suburban neighborhoods and distribute density from the downtown core

- ▶ In each node, there needs to be a variety of services including bars, entertainment and social connectivity. Opportunities for social connectivity must be present for the nodes to be attractive.
- ▶ Focus should be on increasing the viability of the nodes and making them self-sustaining.
- ▶ The needs of the private sector will help accelerate the development of these nodes.
- ▶ Developed and self-sustaining nodes will decrease the need to come downtown.
- ▶ Until multi nodal cities are created, suburbs may not be attractive and living outside the downtown core may not be seen as fun and engaging. As a result, individuals (particularly millennials) that do not want to live in the suburbs but cannot afford to live downtown may leave the Corridor with their skills, knowledge and experience.

- ▶ This is starting to happen in Burnaby, Abbotsford, and Surrey to Vancouver.

Top Challenge #2: How can high speed rail be successful in the Corridor?

Examine proven development, technology, and partnership models from other jurisdictions.

- ▶ The Corridor is not the first jurisdiction to undertake this initiative. Corridor should be examining:
 - ▶ Development models: Other jurisdictions have provided land rights around stations to private companies. This is being done in other countries to capitalize on development opportunities and increase the attractiveness of a public-private partnership.
 - ▶ Funding models: France utilized a public-private partnership model to finance their high-speed rail investment. Can that model work in the Corridor?
 - ▶ Technology: European high-speed rail vs North American - look at Japan's technology.
- ▶ Other areas to evaluate include Japan, Texas, California and France.
- ▶ If dependent on public sector entirely, attaining approvals maybe time consuming, and beginning construction maybe delayed. Can we engage the private sector to accelerate the approval process?

Broaden the scope beyond passenger rail

- ▶ High speed rail value proposition (for communities and municipalities along route) will increase significantly if the scope is expanded beyond passenger rail.
- ▶ Include freight traffic. Could be a link between ports.
- ▶ Build utilities along the high-speed rail route (i.e., adding fiber optic utilities underground). Utilize the tracks designated land for laying utilities that otherwise would require separate resources to stand up. This also can augment connectivity in the Corridor.
- ▶ Expanding beyond passenger rail will increase the attractiveness of a private sector partnership by providing the opportunity to increase profitability.

Ensure the high-speed rail accesses the downtown core

- ▶ Connection to local transit is essential to achieving success.
- ▶ The terminus stations must go into the downtown areas of the Corridor (Seattle and Vancouver).
- ▶ Discussion around high speed rail not sufficient if it were to end in Surrey, for example, and passengers needed to change onto other transportation methods like the Sky Train to access downtown Vancouver.
- ▶ The definition of what high speed rail is within the Corridor needs to be defined. Is it a series of stations along the way? Will there be multi-modal connections? What does this mean from a ticketing perspective? Does this definition along with user expectation?

Top Challenge #3: How can connectivity be improved in the Corridor?

Define a process for approving development permits

- ▶ Define a streamlined process for approving permits related to improving connectivity. These projects are often cross-border and require approvals from multiple countries, state, provinces, and municipalities. A smooth process to communicate and gain approvals from all involved parties would reduce time to delivery.

- ▶ There is a need to continue the conversation regarding how private companies can leverage each other's work to improve connectivity.

Effectively leverage public-private partnerships to accelerate development time

- ▶ Build a fiber optic cable between Vancouver and Seattle through a private and public partnership and allow other developers to leverage some of the work already undertaken.
- ▶ Different funding model (mutually beneficially for both private industry and public - the ability to participate in a growing digital economy).
- ▶ Would potentially increase the quality and quantity of service offerings.
- ▶ Evaluate proven models in other jurisdictions for lessons learned.
- ▶ Examine the Telus model of aiming to put fiber in every household.
- ▶ Need to connect the players in both regions. How many organizations have a presence in multiple areas in the Corridor (e.g. Microsoft)? Bringing together the full weight of the constituents will have a greater impact.

Make social and cultural connectivity a universal goal

- ▶ Consideration for connectivity from a social and cultural lens in addition to technical.
- ▶ Opportunity to engage in community building.
- ▶ Increase social cohesion.

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