

CASCADIA INNOVATION CORRIDOR

INVENTING
TOMORROW
TOGETHER



Higher Education / Research Excellence Committee

Co-Chairs: Gail Murphy, Vice President, Research & Innovation/Prof. C.S., UBC & Shwetak Patel, WA Research Foundation Entrepreneurship Endowed Prof. in CSE, UW

Committee Members:

David Castle	BC	Former Vice President of Research, University of Victoria
Jon Fink	OR	Director, Digital City Testbed Center; Professor, PSU; Visiting Professor, UBC
Susan Jeffords	OR	Provost and Vice President for Academic Affairs, Portland State University
Joy Johnson	BC	Vice President, Research & International, Simon Fraser University
Chris Keane	WA	Vice President of Research, Washington State University
Olivia Norton	BC	Co-Founder, CTO, Global Shapers
Irem Tumer	OR	Vice President of Research, Oregon State University

Action Plan:

1. List & briefly explain your committee's 1-3 "Big Ideas"

(1) Solve problems of significant economic and societal impact to the region that also have global reach through collaborations between researchers in the Cascadia region. We have some of the world's greatest intellectual minds in Cascadia and have a wealth of young talent. Collaborations between these individuals to solve problems like wildfires and health disparity issues can fundamentally improve life in our region and have significant economic impact. A unique aspect of research in Cascadia has been its ability to influence regional policies. This means research conducted on problems of local (yet global) significance fundamentally impact how we live in Cascadia. Point-to-point collaborations exist that can be built on to create strong linkages between the wealth of strong academic institutions in Cascadia.

The first problem chosen on which to focus is wildfire management, including such topics as how we plant forests to be more resistant to wildfire, how we prevent fire through forest management practices, how we cope with the environmental health aspects when fire happens and how we can make use of forests ravaged by wildfire.

(2) Strengthen educational experiences for post-secondary students in Cascadia by linking students across the region to work on projects of societal importance. Many educational offerings in individual post-secondary institutions in Cascadia have courses that include significant group projects working on problems related to the region. By enabling these projects to reach across institutions in Cascadia, students can learn from others in the region, build social networks across the region and tackle problems from different urban/rural and

Canadian/US perspectives. With the increasing efforts around digital transformation, new policies, principles, and thinking needs to emerge as exponential technology meets society. The societal and broader impact of technology has to be woven into the courses and projects from many different perspectives.

2. Describe the context in which your Big Ideas will be implemented (current state of the industry, challenges being faced by organizations, how our region currently operates in this field, etc.)

Cascadia has a wealth of world-leading research Universities of different sizes and in both a variety of urban and rural settings. The collective problem-solving abilities of these Universities rival those of any comparable geography in North America. In addition, our technology industry provides generous funding for research and well-paying employment for our graduates. Furthermore, our progressive social and environmental values create added motivation for our faculty and students to address persistent societal problems neglected elsewhere. However, this rich resource for innovation and social good has long been under-appreciated and under-utilized because it has been divided by international and state borders, reinforcing the tendencies of universities to work most closely with their nearest neighbor government agencies and industries. The region-wide inter-institutional, cross-sector and international research and training programs that we are proposing here can overcome these limitations, allowing Cascadia to better compete with economic innovation rivals such as the San Francisco Bay Area, Toronto and Boston.

3. Briefly describe how the realization of your ideas would impact life in Cascadia.

Successfully integrating the research and talent development capabilities of research Universities in Cascadia could have both immediate and long-term benefits for residents, companies and government agencies. By honing, linking and integrating the problem-solving skills of academic researchers and their students, Cascadian Universities can improve their reputations and grow extramural funding while providing policy makers with an expanded set of allies (and future employees) willing to take on seemingly intractable social and environmental problems. Building a powerful network of academic partnerships across international, state and provincial boundaries can improve the competitiveness of British Columbia, Washington and Oregon relative to Ontario, Quebec, California and New York.

4. What major milestones can be accomplished by 2021 and announced/recognized at the centennial celebration of the Peace Arch? What interim milestones must be reached between now and 2021?

Milestone	Description/notes	Timeline	Owner(s)
1-1) Identify and connect leading researchers in wildfire management at Cascadia research Universities	A sub-committee is being formed to identify appropriate leading researchers in wildfire management and convene initial conversations on specific sub-problems of shared interest	Before October 2019	Jon Fink and Robert Wood (UW)
1-2) Introduce wildfire management topic and policy linkages in breakout at CIC 2019	As part of the breakout session on research excellence at CIC, run a panel to attract other institutions to join the effort.	CIC 2019	Jon Fink, Robert Wood, Gail Murphy, Shwetak Patel
1-3) Convene a workshop that initiates collaborations between researchers and educators associated with wildfire management	A two-day conference, on management and linkage of rural wildfires and urban smoke, would be held at one of the Cascadia universities, allowing faculty to present existing research programs in order to identify gaps where the group could collectively make the greatest contributions.	TBD (likely spring/summer 2020)	Jon Fink and Robert Wood (UW)
2-1) Convene discussions to identify pilots of cross-border course project collaborations	Advisory group to help identify potential courses for pilots	TBD spring/summer 2020	Gail Murphy and Shwetak Patel
1-4) Report out on progress made on sub-problems related to wildfires	Include a session on wildfires and progress made (joint with government representatives)	CIC 2020	TBD
2-2) Pilot cross-border course projects	Undertake projects in courses that involve students collaborating from institutions on each side of the border	TBD fall/winter 2020/2021	TBD
1-5) Demonstrate how research has impacted wildfire management policy	Demonstrate results	CIC 2021	TBD
2-3) Report on pilot cross-border course projects	Report on results of cross-border course projects including benefits and challenges	CIC 2021	TBD