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Reimagining Climate Futures: a Deliberative Dialogue on Circularity Part I

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Summary of Dialogue, February 21-23, 2023

2023 REIMAGINING CLIMATE FUTURES:

A DELIBERATIVE DIALOGUE ON CIRCULARITY





BACKGROUND

As the world gathered in Sharm el-Sheikh, Egypt for COP27, seven years after the historic Paris Agreement, climate observers noted that the climate crisis is unraveling faster than ever before. With devastating floods and wildfires, communities are seeking innovative solutions that can be scaled quickly, provide resilience and ensure sustainability for a diverse range of lifeforms. With greenhouse gas (GHG) emissions continuing to climb, and the latest geopolitical threats making for an ever more complex environment, the pace of transformation of all our systems needs to quicken, all the while ensuring a just and equitable transition for all.

Fragmentation, siloeing, disconnection and political polarization affect a wide range of human experiences and systems and add to the complexity of climate solutions. Research and science have also resulted in very compartmentalized disciplines where trans- multi- and inter-disciplinary research, even if more and more active, is still not very well evaluated and funded. As we increasingly realize we operate in complex and interconnected adaptive systems, researching one subject becomes difficult without considering all connected topics, and their dynamics.

There is a strong invitation and a need for a cultural shift in how we view human systems and their relations to the environment.

As scholars and practitioners, we proposed to convene an interdisciplinary, intersectoral and intercultural group of academics, urbanists, public servants, elected officials and citizens to develop a framework for climate-readiness based on a circular model approach.

The circularity framework for climate readiness will enable communities to reconnect with hope and develop innovative collaborative ideas and worldviews together with concrete proofs-of-concept, such as in the circular city model currently tested in Europe, and scale efforts to meet the challenges of our changing climate in a relational and community-oriented way.

LAND ACKNOWLEDGEMENT

We respectfully acknowledge the x̱m̱əθḵəy̱əm (Musqueam), Sḵw̱x̱w̱ú7mesh Úxwumixw (Squamish), sə̱ḻiḻw̱ətaʔ (Tsleil-Waututh) Nations on whose territories this event took place.

All materials and additional resources available at www.canadaenergyfuture.ca



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ROADMAP & NEXT STEPS FOR REIMAGINING CLIMATE FUTURES

PHASE 1: DELIBERATIVE DIALOGUE

(21-22 FEBRUARY, 2023)

Interdisciplinary dialogue held concurrently in Canada and Belgium to explore visioning and scaling of circular models. This report summarizes key themes emerging from the dialogue, which will be shared with interested groups.

PHASE 2: THREE WORKING GROUP ROUNDTABLES

(APRIL-NOVEMBER, 2023)

Three roundtables will be convened over a six-month period, bringing together an interdisciplinary group to: 1) share current research and understanding of circularity; 2) develop thematic guiding principles for a circular/kinship approach to climate-readiness; and 3) select one or two proofs of concepts to test out with community partners.

POTENTIAL PHASE 3: DEVELOPMENTAL EVALUATION AND REFLECTION DIALOGUE

(2024)

Conference to discuss:

- ⦿ What are the proof of concepts that have emerged and can be scaled?
- ⦿ What have we learned?
- ⦿ What has changed?
- ⦿ What can we transform further?
- ⦿ What hurdles have we faced?
- ⦿ What new opportunities have we identified?
- ⦿ Fundraising for the project implementation



NEXT STEPS

The organizing group will continue to build shared leadership and collaboration amongst the scholars and practitioners interested in delving into the application of the pitched projects, by facilitating virtual working groups between April-November 2023, to develop and evaluate the projects. Other potential collaborations will include:

- ⦿ A series of interdisciplinary papers produced from working groups, reflecting final deliberations at the dialogue
- ⦿ A series of policy papers aimed at decision-makers
- ⦿ The development of a collaborative and interdisciplinary, cross-sectoral evaluation framework for a circularity model
- ⦿ Fundraising for the implementation of the projects co-developed in phase 1 and 2

THE DIALOGUE ON VISIONING CIRCULARITY MODELS FOR CLIMATE FUTURES

The Morris J. Wosk Centre for Dialogue convened a two-day deliberative dialogue on February 21-22, 2023 bringing together a diverse group with interdisciplinary approaches to climate solutions, circularity and community engagement. Participants came from academia, civil society and different levels of government and economic sectors. An in-person and online dialogue was convened in Vancouver, Canada and a parallel dialogue took place at the Katholieke Universiteit (KU) Leuven in Belgium. The dialogues were designed in such a way as to incorporate different practices and ways of knowing in the form of poetry, art, traditional storytelling, dancing and embodied exercises.

AGENDA

DAY 1 (FEBRUARY 21, 9AM TO 4PM)

- ⦿ Opening Ceremony and Indigenous Welcome
- ⦿ Embodied Breathing and Grounding Practice
- ⦿ Circularity 101: A short series of lightning sharings offering different perspectives on circularity for climate
 - Mathieu Leporini, Centre d'Etudes et de Recherches sur le Développement International (CERDI) at the French National Centre for Scientific Research, University Clermont Auvergne
 - Hanna Guttorm, Helsinki Institute for Sustainability Sciences, Sámi University of Applied Sciences, Chair of Dutkanearvi – Sámi Language and Culture Research Association
 - Gabriel Renault, Université Grenoble Alpes
 - Laurence Maurice, Institute of Research for Development, Natural Resources and Sustainability and Visiting Professor at Escuela Politécnica Nacional, Ecuador
 - Science and Mineral Resources
- ⦿ Knowledge Exchange Open Space
- ⦿ Afternoon Storytelling Walk accompanied by Indigenous storyteller Shamanstut of the Sk̓wx̓wú7mesh Nation
- ⦿ Plenary discussion: Interactive Visioning for Scaling Circular Models
- ⦿ Sharing of key ideas heard during the day from witnesses and reflection on points of intersection and collaboration

DAY 2 (FEBRUARY 22, 9AM TO 4PM)

- ⦿ Embodied Movement: Dance exercise
- ⦿ Introduction to proof-of-concept projects
- ⦿ Circularity Applied: A series of lightning sharings on possible areas of application
 - Lily Raphael, Solutions Lab, City of Vancouver
 - Annika Aires, The Value of Language in re-imagining sustainability and circularity
 - Christina Olsen, Eco-cities at BCIT
 - Cam Guthrie, Food Futures, City of Guelph
- ⦿ Open Space for small group collaboration
- ⦿ Introduction to Cross-Pollination of Ideas & Perspectives
- ⦿ Finalizing project pitches
- ⦿ Plenary sharing of ideas
- ⦿ Closing ceremony - Witnesses offer one thing they will commit to sharing



PERSPECTIVES ON CIRCULARITY FOR CLIMATE



The event opened with a knowledge exchange on the characteristics of circularity. Presenters and participants shared a number of different perspectives on circularity, each touching on a specific experience of circularity for climate. The following are some of the key themes that emerged:

- ◉ **The need for a cultural shift** that moves us away from a disconnected world marked by fragmentation, siloeing and a loss of relationships and connections (in multiple dimensions) and towards more **holistic approaches, interconnected systems and circular principles** that rebuild linkages and relationships, and heal our complex systems.
- ◉ **Solutions can often be found in nature and in the approaches of Indigenous Peoples** who have long understood and practiced concepts of circular economy as a way of life.
- ◉ The need to slow down our thinking and **shift from fragmented ways of knowing to more interdisciplinary, intersectoral and intercultural approaches** that can relate to the complexity of interconnected and adaptive systems.

¹ <https://www.circularity-gap.world/2022>

ATTRIBUTES OF CIRCULARITY

Participants were asked to imagine new climate futures that are circular and reflect on the question: *“what are the key attributes of circularity that we need to understand and deepen?”*

- ◉ **Connectivity and Networks:** We need to pay more attention to our networks and connectivity to counter the poverty of social ties and relations that exist today.
- ◉ **Anthropocentric perspective:** We must avoid separating humans from nature; we must reconnect humans with their environment but also recognize that we are not separate from our environment.
- ◉ **Loss:** There must be a willingness to accept loss or sacrifice on some scale in this process. Closing the loop can't always be win-win: we will have to give up something in this process. What does it mean to shift in this direction and what sort of loss do we need to grieve for or prepare for, especially for those of who are privileged?
- ◉ **Abundance-Based approach:** Others felt that the perception of loss is one of the barriers to uptake and that shifting to a more affirmative orientation of what we're trying to mobilize – using an abundance-based approach – would help people see the benefits of circular economy versus scarcity.
- ◉ **Dialogue** is a building block for circularity because it is curiosity-driven, knowledgeable, regenerative and honours different ways of knowing and being and can help us figure out how we move to these circular systems.
- ◉ **Inclusivity** is a key attribute: ensuring no one gets left behind in the transition, be it different kinds of workers in the economy, people of different income levels, communities in different parts of the country, Island states and especially when not everyone can adopt circular economies in the same way, at the same time.
- ◉ There is a need to **bridge our visions for circularity** (there isn't one end goal, or one way).
- ◉ Circularity isn't only about production and manufacturing but also **circularity of relationships** and how we take care of each other and take care of the environment around us.
- ◉ **Education and knowledge exchange** that centres traditional heritage and cultural practices is key to empowering communities.
- ◉ **Promoting food sovereignty and empowerment** through local food movements can restore and revive forgotten foods and traditionally-used, aggregate ecological practices. The food systems set up provide examples of a paradigm shift for other industries and sectors.
- ◉ **Scaling:** The question of scaling from the individual level to the larger systems side was raised a number of times. Education could provide leverage at the individual level while policy could be used as a lever on the larger scale systems side.

Participants were invited to select 2-3 attributes out of the list to explore in smaller breakout discussion groups. Two themes were selected for further exploration: **connectivity and framing shifts**.

1. CONNECTIVITY

Participants in a small group reflected on the attributes of connectivity and envisioned what a climate future and systems change could look like through this lens. Questions they explored included:

- ◉ *What paradigm shifts would support the move from fragmented, siloed systems to circular systems?*
- ◉ *What is core to circularity that we cannot compromise?*

- ◉ **Circular Societies or Communities:** Alternative language to 'circular economy' was explored. The term circular society or circular community connotes *human-centered* connectivity. Going a step further, the concept of circular communities—akin to a mandala with a multitude of interconnected circles—has the benefit of conveying multiple systems which might coexist and be interconnected.
- ◉ **Values/Ethical Framework:** Any shift in systems would need to be underpinned by a shift in **values**. These values include: equity, inclusivity, reciprocity, human connection, compassion, community, cooperation and thinking about this notion of kinship with other-than-humans as well as humans.
- ◉ **Notion of "Enough-ness":** The question of how can we live with enough without needing/taking more or being greedy arose. The concept of "enough-ness" would shift our relationship to resources from extraction to stewardship.
- ◉ **Reimagining Governance:** Participants asked 'how do we reimagine governance?' One idea was to use watersheds as an area of governance. This would decentralize decision-making, be much more place-based, and reliant on storytelling, local cultures, and local ways of doing and being.
- ◉ **Knowledge-sharing:** The role of education in helping with de-siloing and defragmentation was explored, specifically, shifting away from the notion of education to *knowledge sharing*. What would that look like?

How could we help people understand systems, but also connect systems to values, stories and ways to make meaning?

- ◉ **Human Dividend:** The notion of a citizen dividend, rebranded a *human* dividend (what some might call universal basic income) would ensure that people have a level of care, so that they could thrive and use their talents and skills in more innovative or creative ways, rather than in extractive ways.
- ◉ **Shift from models of competition to collaboration:** this would help build connection and inter-relationships, and further dialogue and collaborative governance.
- ◉ **Healing Circles** could help people reconceptualize the 'losses' that some may feel when the world changes.
- ◉ **All interventions need to be context-based:** what works here may not work there.
- ◉ **A future world would include:** local food systems, collective ownership, regional hub systems, walkable cities and neighborhoods, organizing around watersheds, more social connection and less technology, solar energy, and viewing life through a lens of abundance rather than scarcity.

2. FRAMING PARADIGM SHIFTS

A second group envisioned what paradigm shifts would get us to the climate future and systems change we are imagining exists 50 years from now. What would those shifts look like and feel like?

- ◉ **Shifting Work Cultures:** Re-envisioning futures requires moving away from the current status-quo of working eight hours a day, five days a week. What would it look like if we worked three days a week and could spend the rest of the time being more productive in other areas than work, e.g. building skills sets we may have forgotten, or repurposing skillsets?
- ◉ **Adaptive/Multipurpose Buildings:** We can shift how we plan and use our buildings and infrastructure, moving from a singular, specific use to exploring multi-use or mixed use and/or multipurpose buildings (e.g. residential and retail). This would have the added benefit of creating complete communities that are walkable where people can live, work and get their day-to-day needs met.
- ◉ **Greener Public Transport:** If people were working three days per week and living in complete communities, there's the added benefit of less commuting which shifts us closer to greener modes of transport and car-free cities.
- ◉ **Rebalancing the urban rural divide:** what would it look like if we had fewer big cities compared to rural areas? One possibility is a multitude of smaller resilient communities that are self-sufficient in terms of resources with access to food systems and agriculture. More people would be involved in local food production—cultivating a vegetable patch, an orchard or fruit trees.
- ◉ **True Cost Accounting:** Incorporating true cost accounting/life cycle analysis into the cost of things would provide consumers with the actual cost from the beginning to the end. Taking a phone as an example, what would it cost if we were to incorporate the full cost of extracting the minerals, labour costs, distribution and transportation, etc.?
- ◉ **Ownership structure:** a shift is needed to imagine a collective form of ownership where individuals borrow, lend or rent goods and items instead of owning them, such as through tool libraries or seed banks.
- ◉ **Reframing Waste:** we need to move away from seeing broken items as waste and towards reusing, upcycling, and fixing them. Skill-sharing would be an asset to help move to this end.
- ◉ **The economy of care** is something that participants would like to see more of. An example can be found in South America where the politics of well-being (*buen vivir*) are being institutionalized.
- ◉ **Scale & Binary Thinking:** We need to reframe and deepen our exploration of what needs to shift at the individual level versus the collective level. Shifting away from dichotomies and binaries was also cited as part of a paradigm shift, but challenging given that we are embedded in the very systems that we're trying to reimagine.
- ◉ **North-South Reframe:** there is a need to explore relationships and restitution, redistribution and reallocation with a view to creating win-win scenarios rather than exporting our problems South.
- ◉ **Relationships of care:** Circularity isn't only about what is manufactured and produced but is also about relationships between humans, taking care of each other, and also taking care of the world around us.

THEMES EMERGING FROM THE ASYNCHRONOUS DIALOGUE AT KU LEUVEN



- ◉ The group took a **bottom-up approach to looking at circularity** that moves away from the old paradigm of growth, efficiency and short-termism. This marks a departure from the dominant global discourse, which is top-down and led by “WEIRD” countries (Western, Educated, Industrialized, Rational and Democratic).
- ◉ **Incrementalism** was mostly supported as the approach while also recognizing that the need for system change is growing quickly.
- ◉ The need for more **intersectoral, disciplinary, cross-cultural perspectives** was recognized as important and useful, but also not easy to realize in dialogue.
- ◉ There was agreement on the need for a holistic lens to circularity but the group questioned how we can achieve thinking holistically when we are not accustomed to this worldview.
- ◉ Participants discussed **the need for clarity on our goals and the tools** that we have at our disposal, with a caution that tools often become the goal e.g. economic growth, trade.
- ◉ It was recognized that **change may come from the niches or the margins and then spread or scale up**. There are many interesting initiatives that already exist that work at the local level. However, too often, these niche initiatives or innovations don’t scale up sufficiently. We need to ask ourselves why? What are the barriers to them scaling up? Do we understand why they worked? Are we looking at existing projects too often in a mechanistic way, without considering setting time, place, mindset, cultural transformation sufficiently to understand why they worked?

DELIBERATIVE DIALOGUE ON VISIONING CIRCULARITY: PRACTICAL APPLICATIONS

CIRCULARITY APPLIED

We heard five examples of practical applications of circular models:

THE SOLUTIONS LAB

The **Solutions Lab**² is a public sector social innovation lab inside the City of Vancouver that was launched in 2016. Its approach draws from design, social innovations and systems thinking and it brings city staff and community collaborators together in creative, experimental, and learning oriented processes to seek transformation solutions to some of these complex issues. Its approach is framed as a need to envision new systems rather than try to improve efficiencies in current systems. When speaking of systems thinking, they ask *what are the paradigms or mindsets that keep us stuck in the current system?*

THE CIRCULAR FOOD INNOVATION LAB

The **Circular Food Innovation Lab**³ (CFIL) is a recent partnership between the City of Vancouver, the Vancouver Economic Commission and the Emily Carr University of Art and Design, funded by the Carbon Neutral Cities Alliance⁴ and MITACS⁵. The CFIL works with 18 businesses in the food sector in Vancouver to experiment with different ways to reduce food waste and increase circularity within the food waste system. The question the partners convened around was: *How might we work together to increase circularity in Vancouver’s food system so that food is not lost or wasted; access to food is nourishing, equitable and cultural appropriate; and habitats are protected for current and future generations of humans and more-than-humans?*

Processes that the CFIL has been using include:

- ◉ Systems thinking and mapping of patterns, paradigms and mindsets that are keeping the current system stuck
- ◉ Testing and prototyping
- ◉ ‘Seeing’ the system and finding leverage by mapping the different dynamics going on between systems, cultures and structures that uphold the current status quo and also identifying patterns and feedback loops that we can intervene on

Some “stuck patterns” the CFIL has observed include:

- ◉ The prevailing belief that ‘shrink’ or loss of inventory is a part of doing business
- ◉ Passing responsibility on to others in the system
- ◉ Not acknowledging who’s already practicing circularity (and their risk of burnout)
- ◉ Difficulties in imagining circularity.

The CFIL’s approach has also been centred on deep relational work which allows us to cultivate shared accountability and intervene on stuck mindsets. One prototype example shared was a collaboration with a brewer to test the use of spent grains from beer-making to grow mushrooms, showing what’s possible in terms of new markets that would increase circularity in the food sector.

CFIL has also been learning from mistakes. One of the prototyping ‘mistakes’ led them to discover that they need to recognize what’s already happening and existing practices that may not be framed in the language of “circularity,” for instance in farming. This led them to create more celebratory strategies for knowledge sharing, such as storytelling.

² <https://vancouver.ca/green-vancouver/solutions-lab.aspx>

³ <https://vancouver.ca/green-vancouver/circular-food-innovation-lab.aspx>

⁴ <https://carbonneutralcities.org/>

⁵ <https://www.mitacs.ca>

SIMON FRASER UNIVERSITY'S URBAN STUDIES PROGRAM

Simon Fraser University's Urban Studies program is rethinking the value of language in reimagining sustainability as more than a purely technical and measurable practice. In challenging the role of English as a common language, we can pay attention to the gaps in knowledge, and what we miss in translation and meaning-making.

For instance, students and staff at the Urban Studies program looked into terms related to sustainability in local Indigenous languages and discovered concepts that are difficult to translate into English as they contain very place-based, historical and social values as well as meanings that change over time. This inquiry highlighted the value of lived experiences and local ways of knowing: if we only consider sustainability and climate conversations through universalized definitions, we may ignore local understandings, existing ways of knowing, and place-based connections and meanings that could enrich our thinking and action.

A focus on English as the dominant language of technology, science and urban environmental work also limits our understanding of concepts or meaning-making that may be readily available in other languages. One example from the Finnish language is the concept of *Säästäväisyys* which refers to a particular type of frugality and non-wastefulness and modest living. It is related to humble living and is recognized by many Finns as an intergenerational value. The concept—which has historical and economic associations—connects with values that reject excessive spending and emphasizes reasonable consumption and some type of moral self-control. This example demonstrates how local contexts and place-based specific histories and ecologies can make a difference to the way we live and consume things. Social

aspects of sustainability are often downplayed or ignored and don't often make it to the discussion table. This is an invitation to consider the way in which we frame circularity, and the languages, contexts and lands that inform our understanding of it.

THE BC INSTITUTE OF TECHNOLOGY (BCIT)'S CENTRE FOR ECOCITIES

The BC Institute of Technology (BCIT)'s Centre for Ecocities⁶ is supporting the worldwide evolution of ecocities: human settlements, modeled on the self-sustaining resilience, structure and function of natural ecosystems. Ecocities aim to provide for their inhabitants' livelihoods without consuming more resources than it produces, and without accumulating excess waste that it cannot assimilate, upcycle or allow nature to absorb harmlessly.

The Centre for Ecocities works with local governments on measuring and managing their carbon and ecological footprints using the ecoCity Footprint Tool⁷ developed by Dr. Jennie Moore. This tool uses an urban metabolism approach to measure of how much land and a person or population needs to produce all of what it consumes and assimilate their waste. What this approach misses, however, are the emissions associated with all the goods that are brought into that region. For instance, a high-income, non-industrialized territory such as British Columbia imports many of its consumer products, downloading the burden of emissions on overseas sites of production. Pairing the urban metabolism approach with a consumption-based approach, the ecocity Footprint Tool offers a better reflection of our lifestyle patterns and is a more equitable measure. A full assessment of a city's consumption footprint and consumption-based emissions inventory helps pinpoint the areas in a municipality that require greater focus for sustainability, offering greater direction to policy makers. For instance, food waste is

unusually high in Vancouver. Sweden has similarly adopted the consumption-based approach as its national approach, and the BC government is very interested in this model and is working with the Climate Action Secretariat to figure out what this approach looks like at the Provincial level. The Centre will be focusing on embodied emissions next, gathering data on buildings and what materials used to build them.

The Centre has also established an **Ecocity Peer Network**⁸, encompassing 30 cities across Canada, to identify information gaps and better forms of data collection, and to share their initiatives and learnings.

OUR FOOD FUTURE

Our Food Future⁹ at the City of Guelph is a circular opportunities innovation lab with the goal of advancing circularity in the food sector— including supporting increased access to affordable and nutritious food in the community. The Food Futures initiative was initially funded by a \$10 million award received from Smart Cities¹⁰ in 2019.

The initiative involves a number of workstreams including a Waste-as-Resource workstream, a Business workstream and a public health workstream (the Nutritious Food Workstream), as well as supporting 10C, an innovation hub for community activators and changemakers¹¹.

The City won an award from the Canadian Federation of Municipalities for a food flow study on the path from farm to fork, through to waste. Data on food waste is more difficult to gather, however could help us understand what interventions may be available through a circular economy lens.

The Food Future office has helped distribute over 126,000 meals to the community; provided access to affordable foods for around 8,000 people; piloted regenerative

agriculture on 150 acres of land; consolidated over 60 sets of data; reduced over 120,000 tons of carbon emissions; and upcycled 75,000 tons of food through circular meal models, such as contributing waste from fish farms towards beer breweries.

The City is working through the Circular Opportunity Innovation Launchpad (COIL) accelerator to launch and quantify individuals' carbon credits. This is taking the concept of cap and trade to the community level so that folks can quantify sustainable practices through a rewards system: they can receive benefits for going to local food establishments and sell voluntary carbon credits in the market.

⁶ <https://www.bcit.ca/centre-for-ecocities/> ⁷ <https://www.bcit.ca/centre-for-ecocities/tools/#eft>

⁸ <https://www.bcit.ca/centre-for-ecocities/initiatives/ecocity-peer-network/>

⁹ <https://www.infrastructure.gc.ca//cities-villes/index-eng.html>

¹⁰ <https://10carden.ca/about-10c/>

PROJECT PITCHES

Each group was asked to pitch an idea or project that could directly apply a circular model to a key climate challenge.

Participants chose to develop projects in the following three areas: (i) Knowledge-Sharing; (2) Nature-Based Resilience for Watersheds and (3) Food Value Chain Management. Below are themes emerging from their discussions and their project pitches.

1. SHIFTING EDUCATION GROUP

Background Discussion:

The group explored shifts in education, including:

- How to model a curriculum based on circular and sustainable attributes
- How to shift away from the current fragmented and siloed approach to education, by inviting diverse participants with interdisciplinary and cross-sector perspectives in a way that acknowledges the complexities of the issues
- How to develop co-creative spaces, and
- How to incorporate different methods of learning that support innovation, curiosity and iteration, such as democratic spaces, emergent thinking, experiential learning and grassroots approaches

The group grappled with the challenge of how to get such a model into institutions that are known for having rigid structures and established policies, procedures and methods. Other challenges were how to shift away from rigid ways of learning specific subjects in a specific way, towards more holistic model of learning that draws together different mindsets and worldviews and allows them to interact with each other in ways institutions don't readily allow.

PROJECT PITCH: NAMWAYUT DIALOGUES

"WE ARE ALL ONE"



- Circularity-Centred Curriculum
- Brings in diverse knowledge systems
- **Characteristics:**
 - Participatory (what are the means we have to empower ourselves to actually make change)
 - Experiential (maker spaces, technology systems)
 - Dialogical
 - Pragmatic
 - Localized
- **Shifts/Transforms towards a circular society**
 - Targeted to K-12 students but open to community and teachers
 - Holistic, interdisciplinary education model drawing different mindsets and worldviews in a space that allows them to interact with each other
 - Networked: co-collaborative, co-creative and emergent way of learning
- **Pre-Step: Mapping of actors/contributors, models, systems**
 - Ask permission from knowledge keepers
- **Step 1: Design curriculum:**
 - Bottom-up, dynamic process (space for emergence – what do people want to learn?)
- **Step 2: Implement self-determined localized dialogues**
 - Allowing people to engage in the learning but also structure the learning depending on their region and context

"It's loop(s) not a pipeline"

2. BIOREGIONAL GOVERNANCE GROUP

Background Discussion:

The group explored new ways to consider climate adaptation, moving beyond political jurisdictions to protect, restore and enhance natural systems at a watershed scale to ensure the resilience and sustainability of the ecosystem that sustains local biodiversity as well as our communities.

The group considered the types of data that would be required to work at the watershed scale, e.g. socio-ecological mapping data and ensuring that both living and non-living entities are included as key stakeholders within any watershed resilience system. The Indigenous model of how to care for water as an entity in the watershed landscape was held up as the best example we have in BC and centering Indigenous knowledge was seen as key to helping reframe our relationships with watersheds and the natural environment. Inviting all stakeholder groups into participatory processes that explore what new arrangements could look like supports the concept of an emergent governance.



PROJECT PITCH: NATURE-BASED RESILIENCE FOR WATERSHEDS

“HOW CAN YOU MEASURE & EVALUATE RESILIENCE?”

- ◉ **Develop:** Emergent governance model
 - How can governance feed into resilience (both living and non-living)?
- ◉ **Diagnosis Phase:**
 - Participatory mapping exercise to better understand
 - Sectoral, stakeholder needs
 - Current uses, future uses
 - Needs, demands, power, rights, risks, climate lens
 - Ecosystem services and function
- ◉ **Timescale:**
 - Past, present and future?
 - Establish baseline (how long ago?)
- ◉ **Temporal**
 - Ancestral knowledge
 - Future climate projections
 - Historical change contexts/ transformations
 - Intergenerational, paradigm shifts, e.g. size of shift
 - Social ecologists understand how local places shift, socio-ecological regimes
 - Map hx
- ◉ **Consider:**
 - Who is ultimate ‘stakeholder’ – creator?
 - Governance to increase resilience
- ◉ **Next Steps**
 - Identify specific watershed
 - Map and gather all actors in dialogue
 - Stewardship / hx care of land
 - Create connection to land /shared understanding and lens
 - Increase awareness and education for holistic approach
 - Establish how to work together for watershed resilience
 - Consider accountability

3. FOOD INDUSTRY GROUP

The group developed an idea that could continue the work of the circular food innovation lab within the Vancouver area to sustain existing relationships and learnings and continue to address issues in the food system that have come to light.

A timeframe of 3 years was discussed for this Circular Economy Food Coalition. The starting point would be to reconvene the 18 food businesses that participated in the lab originally to understand why they continue to be a part of that network and community of practice and what would motivate them to continue working together towards a circular economy of food in Vancouver. The project would then explore what collective action they might want to work towards and how that could be expanded to bring in other food businesses in Vancouver. The work could encompass other pockets of the value chain or supply chain or expand the coalition to different associations and business within Vancouver.

The group highlighted how much can be learnt from talking directly with businesses on the ground about the specific challenges they face, why it's hard to move forward and where the leverage points are in the system to advance solutions for wicked problems.

PROJECT PITCH: CIRCULAR ECONOMY FOOD COALITION

CONVENING WITH PURPOSE, INDUSTRY-LED

- ⦿ **NorthStar:** a just and equitable circular economy of food
- ⦿ **Scale:** City of Vancouver
- ⦿ **Timeframe:** 2 meetings March-April 2023
- ⦿ **Actors:** Food Businesses (upstream > downstream); Sectoral networks and associations
- ⦿ **Plan:**
 - Mitigate food waste in Vancouver
 - Convene, find solutions,
 - Increase resilience of local food systems
 - Business case for circularity (durable, sustainable)
 - Explore replicability
 - Sharing best practices/learnings incl. from other jurisdictions
 - Community of practice
 - Case study: product
 - Test /proof of concept
 - Demonstrate to policy makers

4. INDUSTRY PARTNERSHIP ALLIANCE FOR CIRCULAR MODELS

The online group explored the concept for a project that creates a partnership alliance among industry actors shifting to circular models.

PROJECT PITCH: INDUSTRY PARTNERSHIP ALLIANCE FOR CIRCULAR MODELS

Steps/Actors:

- ⦿ First step: reaching out to NGOs, academia and researchers who have innovative infrastructure already in place and are working on circular models within specific industries (e.g. farming, electrical appliances).
- ⦿ Second step: bringing government agencies to help set up alliances within that industry. The rationale for approaching Government is that they can offer lower taxes or grants as financial incentives, as well as regulations and general policy to create requirements for minimum delivery standards and participation standards within industry.
- ⦿ The alliance would engage with emerging youth organizations in this process because education in the circular economy would be important to keep those alliances going forward.

Goals:

- ⦿ Shift to environmental goals and away from bottom-line models

Approach

- ⦿ An iterative approach culminating in a one-year plan - after a year the discussion would be focused on how to get government agencies and regulation on board

Benefits (to be communicated to general public and industry)

- ⦿ Reduced costs for consumers
- ⦿ Available prototypes to be working with
- ⦿ Savings on venues, distribution
- ⦿ Opportunity for a multidisciplinary approach
- ⦿ A hub for innovation and learning that would export those learnings to other industries to form further alliances
- ⦿ There would be more space for repurposing, for faster future product generation and opportunities for industries to expand into new markets
- ⦿ Brand recognition by government for industries and organizations that participate in circular models which would help improve customer loyalty for those participating
- ⦿ Lower carbon emissions and less field or transport

ANNEX

The Dialogue on Visioning Circularity models for climate futures was intentionally designed to incorporate different practices and ways of knowing in the form of traditional storytelling, poetry, art, and embodied movement.

We acknowledge with gratitude the xwməθkwəy̓ əm (Musqueam), Skwx̱ wú7mesh Úxwumixw (Squamish), səí ilw̓ ətaʔt̓ (Tseil-Waututh) Nations on whose territories this event took place.

With gratitude, we accompanied Indigenous storyteller Shamanstut of the Skwx̱ wú7mesh Nation on an afternoon storytelling walk.



LEFT: ARTWORK FROM PARTICIPANT DEPICTING THE CONCEPT OF CIRCULARITY

Title: Home
By Nastenka Alava Calle

BELOW: EMBODIED MOVEMENT LED BY LAURENCE MAURICE



POEM ON CIRCULARITY CONTRIBUTED BY HANNAH GUTTORM

The closest nature is my own body, the closest Earth

Which I have allowed to be colonized, extracted

By western society and ways of being

The circularity is here

Everything in me and us revolves, keeps on going,

happens without us noticing,

I only would notice

If the extra fluids and waste wouldn't leave my body

If I didn't get water and food to maintain my circularity

If my body stopped breathing, circulating blood

Or from drawing air into the lungs

If the bacteria that sustain my life left me completely,

died, stopped taking care of my vital functions

If all the other good organisms left my body

If I were left alone.

There would be no me-we

This Place-based Consciousness

In the universe

in the land

In me, in you, in him

In that tree, mushroom, branch, in each rhizome

Still we tend to agree to all of this

To this tinkering that separates us from the Earth

To this endless and mind-numbing execution, reporting, planning, forecasting, risk management,

For all this doing, where the most important thing is to keep going, running, performing, producing, executing,

Without stopping,

Without asking for the purpose,

Without facing the complexity of the system we created, the system-centeredness,

Without facing the helplessness, the uncertainty,

Without facing discomfort of any kind, questions of the Body Mind, neither my own nor others'

Without recognizing fatigue and exhaustion,

That's why I write and talk

With the world from this place

With the accumulation of pain and trauma of the entire history of the world

With this transgenerational trauma affecting so many of us, if not all Earthlings,

Transgenerational Trauma of Losing Connection with Earth (Shawn Wilson)

Would it be possible to recognize that we are Earth

us body-mind-spirits

Reciprocal

Interdependent

Within the circularity of everything

WORKS CITED

Leporini, M., Jacquet, E. and Guttorm H. 2023. Reimagining Climate Futures: a Deliberative Dialogue on Circularity Part I. SFU Centre for Dialogue. Vancouver, Canada.

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This event was co-designed and led by Mathieu Leporini, Project Lead for CERDI, Hanna Guttorm, Project Lead for the University of Helsinki and Elodie Jacquet, Project Lead for SFU Centre for Dialogue with support from the SFU Morris J. Wosk Centre for Dialogue.

We would like to extend our thanks to all participants who attended and contributed to this event.

REGISTERED PARTICIPANTS

Dr. Zafar Adeel	Maya Gislason	Darseen Pooni
Annika Airas	Doran Hoge	Gabriel Renaud
Juan Alava	Meg Holden	Philip Robbins
Elena Briones Alonso	Julie Hordowick	Andrew Schwartz
Clifford Atleo	Olivia Jackson	Amba Sepie
Sonam Bajwa	Vasya Jeyakanthan	Alison Shaw
Emmanuel Benoit Raufflet	Am Johal	Paul Shorthouse
Jessica Bockler	Katharina Koch	Sxwpilemaát Siyám (Chief Leanne Joe)
Theresa Boersma	Cynthia Lucar Diaz	Kim Slater
Elena Briones Alonso	Sebastien Marchand	Pia Smeds
Ana Bustamante	Jennifer Martel	Mireta Strandberg- Salmon
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If you would like additional information about the event or follow-up phases, please contact:

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