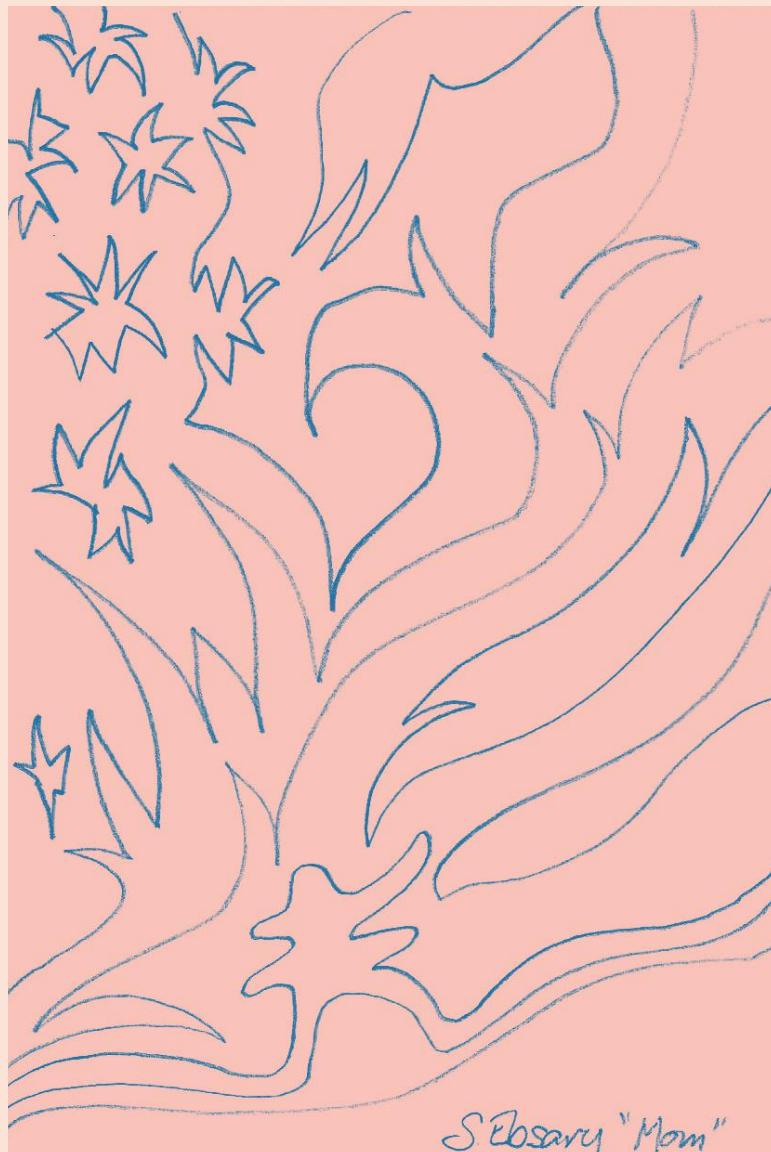


**5.**



# **Our Principles in Action**

The next phase of our project involved testing our principles in action. We worked with an environmental organization to help them explore the possibilities for a sustainability-focused innovation hub in the Canadian North. Through this experience, we were able to design an engagement according to our principles. In this section we outline this case study and our reflections from the process.

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## Innovation at the Northern Centre for Sustainability

- 5. A carbon-negative building has a positive carbon footprint: it does not contribute carbon dioxide to the atmosphere but removes it.

One day in February 2019, we received a call from an environmental non-profit in Yellowknife, the capital of the Northwest Territories. The organization, Ecology North, had been working on a proposal to build the first carbon-negative building<sup>5</sup> in Canada, developed in partnership with the local Indigenous community, the Yellowknives Dene First Nation. The proposed building, the Northern Centre for Sustainability (NCFS), would serve as a living demonstration of northern green building practices and house an innovation centre bringing together sustainability-oriented organizations and individuals to advance sustainability in Yellowknife and beyond.

Ecology North hired us as design researchers to help them frame what innovation might look like at the NCFS and how it could participate in transforming communities in Yellowknife and throughout the North.

We spent a few weeks preparing in Toronto for our trip up North, and in late February, three short weeks after our first phone call, we found ourselves at the Ecology North offices in snowy Yellowknife. We spent one week in Yellowknife conducting primary research using processes informed by our principles developed for transition designing. After that, we had a few weeks in Toronto to put together a report for Ecology North. In parallel with this report, we reflected on our process using principles-based design.

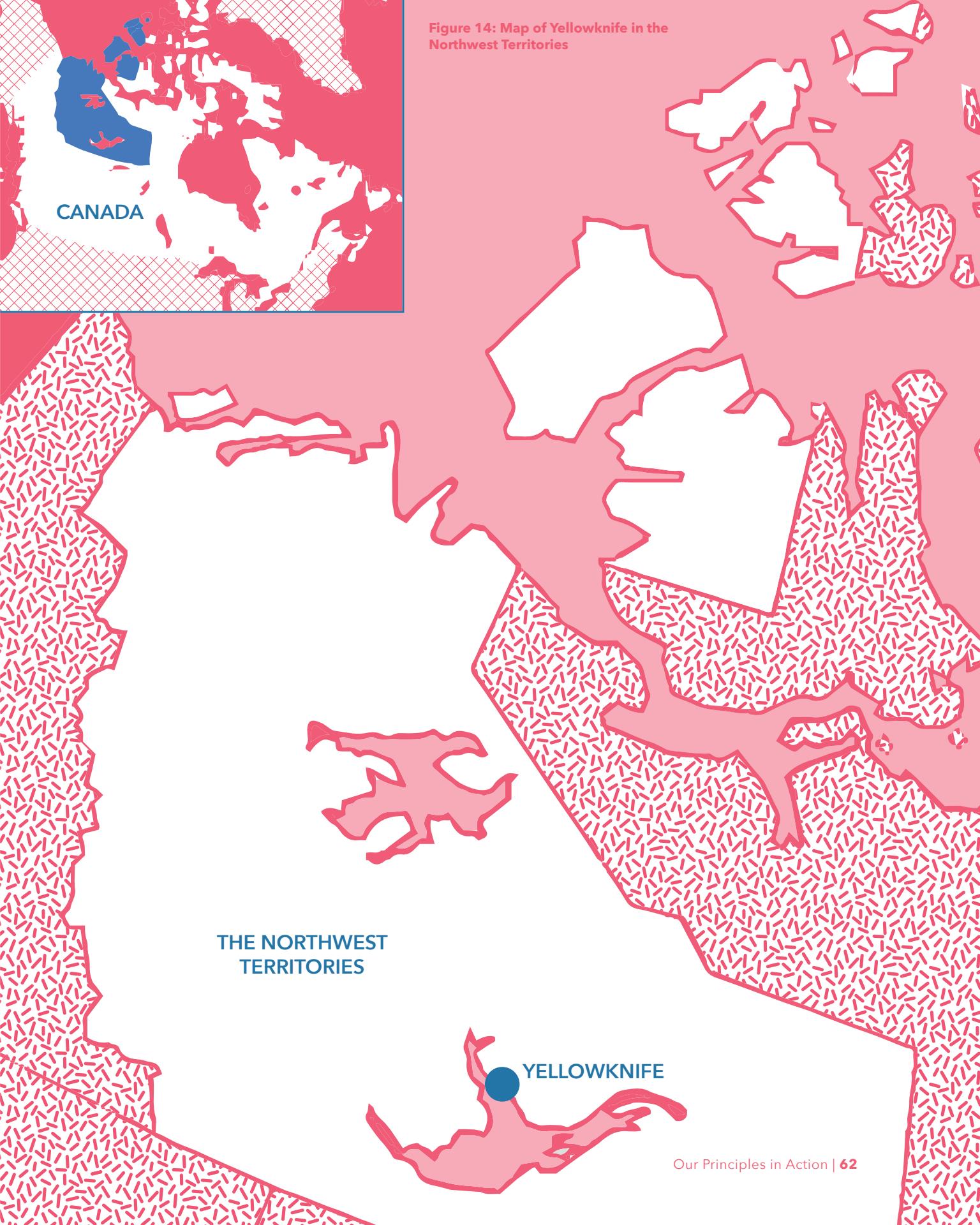
**Image 1: Tara and Ariana at Pilot's Monument in Yellowknife**



**Image 2: Tara in Yellowknife**



Figure 14: Map of Yellowknife in the Northwest Territories



# What we did

We developed a set of research questions separate from those of our MRP for our project with Ecology North. To frame innovation for sustainability within the context of Yellowknife and the Northwest Territories and understand what it might look like within the proposed NCFS, we oriented our research around the following lines of inquiry:

## RESEARCH QUESTION

How might a dedicated innovation space in Yellowknife foster sustainable northern ways of living?

## SUB-QUESTIONS

- What does sustainable innovation mean to Yellowknife and the Northwest Territories?
- What current challenges could innovation for sustainability address in Yellowknife and the Northwest Territories?
- What existing strengths provide opportunities for innovation?
- What might happen at the Northern Centre for Sustainability to encourage innovation?

## Our process

Our process involved background research before heading to Yellowknife, interviews with various community members and organizations, and a public co-design workshop. The combination of these methods allowed us to understand the project contextually and involve the community in the process. The actual shape of our engagements, however, did not take form until we were in Yellowknife. We were comfortable improvising because our process was scaffolded by the principles we set out beforehand, and we wanted our methods to be specific to the research as it developed on the ground.

## Methods

### Background research



We spent a few weeks conducting background research to better understand the concepts of sustainability and innovation in the context of Yellowknife and the Northwest Territories. We reviewed models of innovation hubs from elsewhere from which we might draw best practices. We read about place-specific priorities in documents from the City of Yellowknife, the Government of the Northwest Territories, the Canadian Northern Economic Development Agency, and the Yellowknives Dene First Nation. We tried to learn as much as we could about the history of Yellowknife and the Northwest Territories, and we conducted some initial scoping interviews with Ecology North to learn more about the project development.

### Interviews



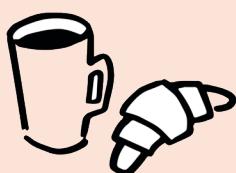
During our primary research phase in Yellowknife, we conducted ten interviews with representatives from Ecology North, the City of Yellowknife, the Government of the Northwest Territories, private businesses, the Yellowknives Dene First Nation, and the community. The purpose of these interviews was to understand innovation within the specific context of Yellowknife and the Northwest Territories and to inform the design of our workshop.

### Workshop

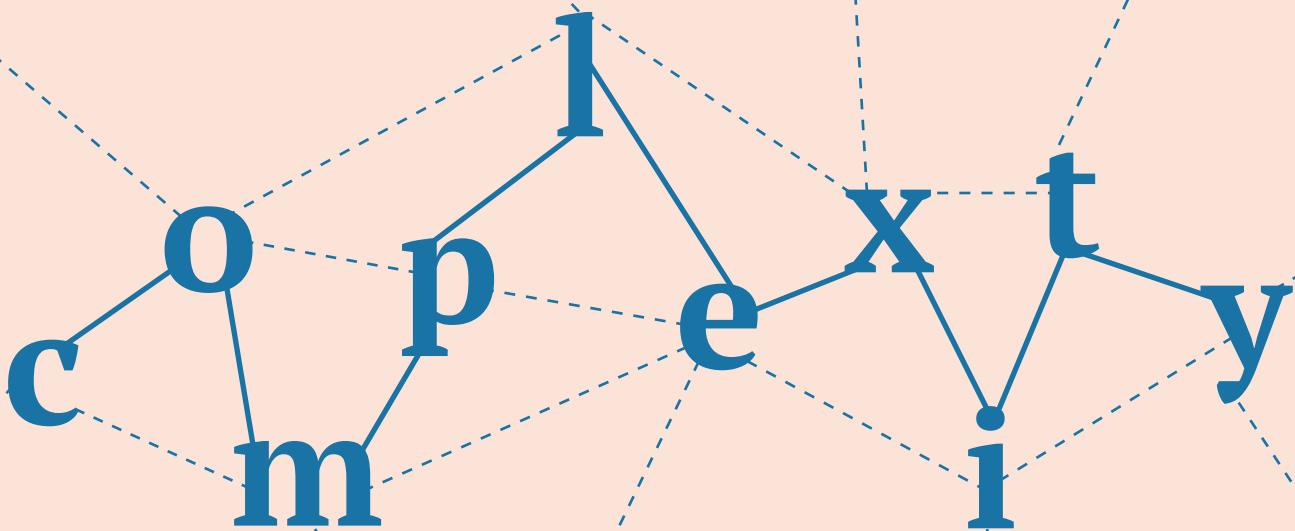


Our primary research culminated in a co-design workshop with 20 participants recruited through our interviewees, word-of-mouth, public posters, and Ecology North's circulation channels. Our participants collectively imagined which innovation models, activities, and practices at the NCFS would bring the greatest value to communities in Yellowknife and the Northwest Territories. We facilitated a series of activities that we used to develop a detailed concept for what innovation might look like at the NCFS.

### Hanging out



We also consider the time we spent in Yellowknife not "officially" working as part of our research. By intentionally treating our time hanging out as research, we were able to acquire a better understanding of the context and community in which we were working than we would have through solely more formal methods. To encourage conversations, we spent a lot of our time outdoors and in public settings wearing stickers that invited people to come talk to us about innovation.



PRINCIPLE 1

*Understand and work with context instead of treating the future as a blank slate.*

## THE COMPLEXITY PRINCIPLE

Understand and work with context instead of treating the future as a blank slate.

### MAKING IT ACTIONABLE

- Contexts are too complex to understand alone: co-create your understanding of context.
- There is more to context than meets the eye: discover contexts through informal interaction.
- Your understanding of context evolves as you design: leave room for emergence.
- Contexts constrain possibilities: build on what is already there, already in motion.

### FOLLOWING OUR PRINCIPLE

**Image 3: Hanging out**  
Ariana out in Yellowknife wearing a sticker inviting informal chats



### Co-create your understanding of context.

Our secondary research to understand the history, people, place, and project could only take our understanding of context so far. Conducting interviews in Yellowknife with a diverse range of community members and organizations allowed us to learn how concepts like innovation and sustainability look different in this specific context from the community. The insights into needs, challenges, and strengths provided us with a much broader and deeper understanding than we could ever have gained on our own.

### Discover contexts through informal interaction.

We developed an understanding of the innovation context in Yellowknife and the Northwest Territories through secondary research and formal methods like interviews. Yet these methods often leave out elements of context that people are either less willing to communicate or may not think to communicate. We intentionally approached our informal and casual time in the community as a way to do lived,

## FOLLOWING OUR PRINCIPLE

informal research. We even created “Hi, I’m in Yellowknife to chat about innovation. Come say hi!” stickers that we wore when we were out and about to encourage this type of interaction. Through this intentionality, our understanding of context was made much more nuanced and comprehensive.

There is also a lot to learn about context by spending time embedded within it. We spent time at cafes, going to cultural events, and hanging out with community members. These were not ways to answer specific lines of inquiry, but activities that helped us do the important work of getting to know a place.

## Build on what is already there, already in motion.

Our community co-design workshop was developed based on context-specific insights from interviews and research. We designed a card game activity to guide participants in generating scenarios of what might happen at a Northern Centre for Sustainability. Cards were organized into three categories populated by findings from earlier research:

- potential innovation models: activities, programs, partnerships, or resources that could encourage innovation at the NCFS
- challenges: challenges or community needs the NCFS innovation hub could help address
- superpowers: unique strengths of the community to be leveraged in the development and maintenance of the NCFS innovation hub

Image 4 ▼  
NCFS scenario card game



## FOLLOWING OUR PRINCIPLE

### ▼ Image 5, 6: Cards with context

Context cards used to build scenarios for the NCFS and presented by each group



## Leave room for emergence.

We imbued our own design process with a sensitivity to emergence. We trusted that by having strong foundational principles we could take a more unstructured, improvisational research approach. Though we did a lot of work to prepare and inform ourselves, we were comfortable arriving in Yellowknife with only a loose plan of what our final workshop and time there would look like, listening for and working with our new understanding of context to create a more emergent research engagement.



## REFLECTIONS

### More time (and trust) is better

It can be difficult to establish the trust and relationships needed for certain communities to feel safe and comfortable sharing their knowledge and experience. This trust comes with the time needed to develop a deep and nuanced understanding of context and was a challenge for us as researchers from outside the community with only a short-term engagement.

## Specifics help

Our own prioritization of contextual specifics ultimately made our co-design workshop quite effective because it allowed participants to easily engage with and feel inspired by the materials.

# Ongoingness

## PRINCIPLE 2

*Focus on the process instead of the end vision.*

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## THE ONGOINGNESS PRINCIPLE

Focus on the process instead of the end vision.

---

### MAKING IT ACTIONABLE

- Transition requires ongoing engagement: build commitment by strengthening partnerships and relationships.
- Thinking ongoingly means thinking openly: do not let the need for a concrete outcome obscure the value of exploring possibilities.

### FOLLOWING OUR PRINCIPLE

#### Build commitment by strengthening partnerships and relationships.

We prioritized forming and strengthening partnerships and relationships between the community and the project to encourage ongoing commitment to the project. We took it upon ourselves to identify who outside of Ecology North might be able to champion the NCFS project beyond our engagement. This meant travelling to peoples' homes, inviting people for coffee, and carefully recruiting for and orchestrating our co-design workshop. We spent time identifying which voices needed to be included in the ongoing project development and tried to connect and involve representatives of those communities.

## FOLLOWING OUR PRINCIPLE

### Do not let the need for a concrete outcome obscure the value of exploring possibilities.

We designed our workshop to emphasize building participants' capacities to collectively imagine a valuable space. A more traditional approach to workshop design might have been oriented toward producing a specific idea of what exactly the NCFS would look like and do. Instead, we encouraged creative, outside-the-box brainstorming and development of many scenarios. Though a unified plan for the NCFS will have to be determined eventually, at this visioning phase, we felt that emphasizing convergence would obscure feedback from the community that could help us understand what would bring the most value. We hoped this prioritization of exploring possibilities alongside immediate actions would make the community more successful at managing and working toward what is likely to be a long-term, changing project.



◀ **Image 7: Co-design brainstorming**  
Participants brainstorm creative possibilities for the NCFS during the co-design workshop



**Image 8: Finding champions ▲**

Tara during an at-home interview with one of the NCFS champions

## REFLECTIONS

### Exploration is often uncomfortable.

Within our workshop and interviews, we found that some participants struggled with a process that was not oriented around a concrete outcome. We were emphasizing capacity-building, collective imagining, and guidelines that could inform ongoing work. Yet, for some participants, ambiguity and uncertainty was uncomfortable. Even though we were comfortable leaning into process rather than trying to reach an end vision, we could have been better equipped to frame our process in a way that felt useful and concrete to participants not naturally inclined toward uncertainty.

Pluriversality

PRINCIPLE 3.1

*Recognize and welcome difference instead of working toward agreement on a single vision.*

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## THE PLURIVERSALITY PRINCIPLE

Recognize and welcome difference instead of working toward agreement on a single vision.

---

### MAKING IT ACTIONABLE

- We want a world in which everyone has a say about the future: consider everyone involved in and impacted by your work, and employ a variety of engagement strategies.
- People have different ways of communicating their ideas about the future: use inclusive methods.

### FOLLOWING OUR PRINCIPLE

**Consider everyone involved in and impacted by your work, and employ a variety of engagement strategies.**

Yellowknife is situated in a place with diverse histories, cultures, and backgrounds. We began our project seeking to understand and include as many perspectives, voices, and stories as possible. We worked to engage the broadest range of people that we could, from community members and small business owners, to government workers and Indigenous leaders.

Recognizing that people are drawn to participate in things for different reasons, we developed community interest in our research through a variety of engagement and recruitment strategies. We had Ecology North reach out to people who might have been more receptive to formal invitations to participate. We used snowball recruitment to leverage existing networks and reach people with a social commitment to the NCFS. We put up posters in a variety of public places and posted on relevant social media to reach participants who were less intimately tied to the project.

## FOLLOWING OUR PRINCIPLE

### Use inclusive methods.

Our final workshop was designed so that while groups were working collaboratively, participants could contribute their own thoughts and insights in individual participant workbooks to accomodate any discomfort sharing in a group. Facilitators were trained to encourage contributions from everyone involved in their group and make sure the proposed scenarios were representative of different perspectives.

We also tried to use a diverse set of research methods to make participating in our process as inclusive as possible, mixing more formal group methods like a workshop with individual interviews and informal discussions while we were out in the city.

◀ **Image 9: Workbooks**  
Individual workbooks for our co-design workshop

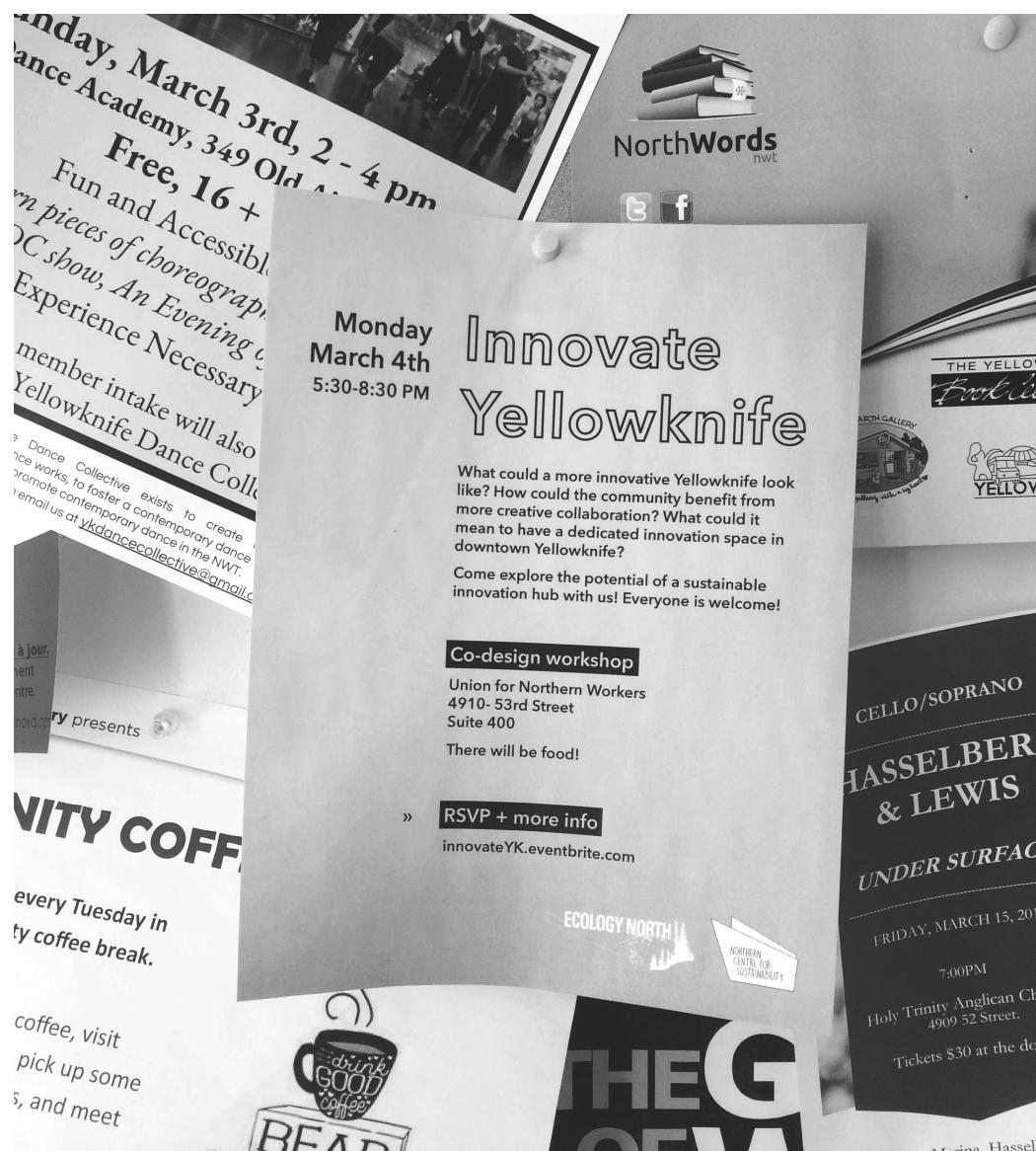


## REFLECTIONS

### Go beyond welcoming difference to intentionally seeking difference.

Like understanding context, the principle of welcoming difference is more successful with more time. Without intentionally seeking out difference, what often emerges in these types of processes are the dominant voices and perspective. Our short time in Yellowknife meant that we could only schedule a limited amount of interviews, that we were not able to train our facilitators to the extent that we would have liked, and that we could not spend as much time as we would have liked recruiting. We also found that as outsiders coming into the community, we needed time to understand measures that should have been taken to be truly inclusive and to establish the trust needed for some people to accept our invitation to participate.

**Image 10: Workshop poster**  
An invitation to our co-design workshop on the bulletin board of a local shop



# Interdependence

Interdependenz

## PRINCIPLE 3.2

*Consider layers of impact  
deeply instead of looking only  
to those immediately affected.*

---

## THE INTERDEPENDENCE PRINCIPLE

Consider layers of impact deeply instead of looking only to those immediately affected.

---

### MAKING IT ACTIONABLE

- Transition requires collaboration: identify shared elements of a desired future.
- Building a connected future means creating value for everyone: encourage people to situate their own needs and values within a bigger picture.

### FOLLOWING OUR PRINCIPLE

#### Identify shared elements of a desired future.

It is not necessarily natural or easy for people to think interdependently. In a diverse community like Yellowknife, there are groups who have legitimate concerns about privacy and ownership, about power and who will be prioritized in a space, about who will get to define how a space is used. Our co-design workshop was one of the main ways we attempted to encourage more interconnected mindsets. People from different government offices, private business owners, non-profits, educators, and community members discussed a topic together that might affect all of their futures. Everyone had different needs, but our participants were able to discover ways in which their concerns might not actually be in conflict with each other but might be addressed in ways that are mutually beneficial.

## FOLLOWING OUR PRINCIPLE

### Encourage people to situate their own needs and values within a bigger picture.

People came in with their own ideas or projections for the NCFS, but the card game encouraged them to frame these ideas within the context of providing value to others. The ideas that each group ultimately put forward had to demonstrably meet community needs and build upon community strengths. Further, building a scenario in a group necessitated that each participant allow their own ideas to be shaped by others. When the groups pitched their final scenarios to each other, they were once again presented by what others in their community considered urgent and valuable.

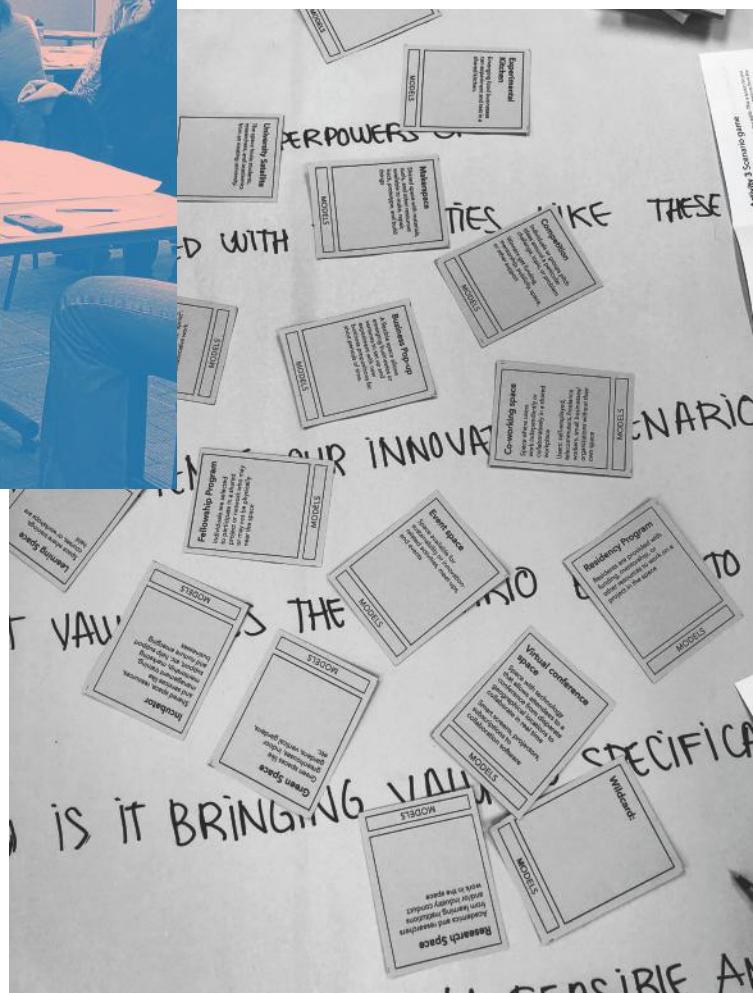


▲ **Image 11: Shared values**

Participants work together to find shared value in a future NCFS

▼ **Image 12: Community values**

Cards present community values that participants can explore and address with their scenarios





▲ **Image 13: Shared visions**

Participants shape a shared vision for a sustainable, innovative future.

## REFLECTIONS

### A mindset of interconnectedness can and should move beyond a project.

Because we were focusing specifically on what might happen at the NCFS, we did not spend much time in our workshop exploring what the world might look like around a future NCFS. Being more explicit about imagining a future that allows for the shared needs and interests of participants beyond the NCFS might have allowed us to build a deeper understanding of interdependence within the community.

### We can create value but we can also destroy it.

Though it was useful to understand what value means and for whom, it is also important to understand where value is not being created, or where it is being destroyed. To understand potential challenges and barriers, we could have spent more time critically discussing who and what might be negatively affected by the proposed NCFS.

# Sustainability

## PRINCIPLE 3.3

*Consider influence into the far future instead of orienting definitions of success around immediate effects.*

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## THE SUSTAINABILITY PRINCIPLE

Consider influence into the far future instead of orienting definitions of success around immediate effects.

---

### MAKING IT ACTIONABLE

- Sustainability is more than a buzzword: broaden your understanding of sustainability.
- Transition requires orienting present action toward the long-term: build capacities for thinking about the future.

### FOLLOWING OUR PRINCIPLE

#### Broaden your understanding of sustainability.

This principle was perhaps the most straightforward to design with since the Northern Centre for Sustainability as a concept lends itself to easily incorporating sustainability. Our main focus for this was to consider the project not as a single engagement but as a project that would, no matter what, have profound impacts into the future of Yellowknife, the NWT, and possibly much further. We used probing interview questions and workshop prompts that asked participants to consider not just the NCFS but the futures they want for their communities and the world. We posed questions that consider the NCFS in a long-term way: what does a long-term future mean for operating and maintaining the space? How could we ensure that the space is flexible enough that it will stay relevant and useful? What could the building and the activities within it mean for future generations?

## FOLLOWING OUR PRINCIPLE

### Build capacities for thinking about the future.

We also oriented parts of our interviews and workshop around building peoples' capacities for thinking about the future. Thinking sustainably involves a recognition of how every decision and action in the present has implications for the long-term future. Rather than focusing only on the needs of the present engagement, we asked questions and conducted activities to help the Yellowknife community begin thinking about the NCFS within these long-term needs. In our interviews, we posed questions that prompted people to consider what a desirable future for themselves and their communities might look like and how the NCFS might fit into that future. In our workshop, one activity asked participants to demonstrate their feelings of optimism and control in shaping the future of their communities. Framing the project in the context of a long-term future required people to begin thinking explicitly about the types of futures they would like to contribute to.

#### ▼ Image 14: Thinking to the future

Participants stand up to demonstrate their optimism and feelings of control over the future of their community.



**REFLECTIONS****Sustainability is a distracting term.**

The word sustainability is so commonly defined in a particular way, it can be difficult to expand the conversation. It was our challenge and responsibility as designers to understand that even though the NCFS prioritizes environmental sustainability, it needs to consider sustainability more comprehensively.

**Long-term concerns are not prioritized.**

It can be difficult to orient a project toward the long-term because immediate value is so often sought after and rewarded. Projects still need to grapple with the very real needs of the present and are obligated to satisfy the parties involved. This is a tension we have yet to resolve.