



11 SUSTAINABLE CITIES AND COMMUNITIES



Moderation Team

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SDG 11: Make cities and human settlements inclusive, safe, resilient, and sustainable

Event Description

On **June 21, 2021**, Queen's University hosted its first [17 Rooms](#) event, which brought together Queen's faculty, students, and staff to identify next steps for advancing the [UN Sustainable Development Goals \(SDGs\)](#) at the university.

Participants were divided into 17 virtual rooms, one per SDG, and asked to identify actions **that Queen's University could take in the following 12 to 18 months to advance their specific goal.**

Rooms participants were also asked to identify:

- The most important issues related to their SDG that Queen's should address,
- Connections and common themes amongst these issues,
- How their SDG connects with reconciliation/conciliation, decolonization, and Indigenization,
- How their SDG connects with other SDGs.

Each room had two hours to brainstorm ideas before presenting their recommended actions to all participants. Following the event, each room's moderation team authored a summary report.

Room Participants

Ajay Agarwal (Moderator)	Joshua Marshall
Michel Carrier (Student Facilitator)	Nura Martinez
Dan Cohen	Jeff Masuda
Christina Dinsmore	Ian Moore
Adaku Echendu	Owen Ramsay
Madelen Fellows	Emma Jane Randall
Stefanos Georgiou	Kerri Regan (Staff Facilitator)
Hom Nath Gharti	David Murakami Wood
Tony Gkotsis	Barb Wowk
Cheyenne Litt	

Section 1: Themes and Actions

Room 11 brought together 19 individuals from across Queen's University to discuss approaches to addressing SDG 11.

They highlighted three common themes: housing and the university's impact on the community, sustainable infrastructure, and accessible transportation systems.

The group stressed that all planning processes, outcomes, and frame of references for SDG 11 should reflect, as a starting point, the **land-based knowledge and priorities of local Indigenous peoples**.

It was noted that there was gender balance in the group. However, some important voices were excluded most notably women faculty members.

Participants indicated they are examining issues through local and global lenses.

1. Housing and the University's Impact on the Community

Issues within this theme included:

- Housing crisis,
- Student housing,
- Green housing,
- Waste management initiatives within student housing,
- Active engagement with the community in planning, and
- Preservation of cultural and heritage resources.

Discussion

Local and student housing was identified for its relationship to the housing crisis in Kingston. **It is crucial to identify the university's role in the housing market**, to understand how student housing impacts the local housing market, to investigate the **green nature of housing**, and determine whether current housing meets the needs of residents in a sustainable manner. A home standards project was proposed to help address issues surrounding the quality of housing in Kingston.

Various roles were identified for the university as a landowner and educator. It was proposed that the university can help students become involved in ensuring access to affordable housing and safe transportation.

One participant spoke to how the university's expansion has a large impact on the community by placing pressure on affordable housing and forcing students to travel further.

It was proposed that the university's role should be to monitor where students live, and to identify the impacts as well as what the university can do to reduce future spread of student housing. **This is crucial given the university's role as the largest landowner of cultural and heritage sites in Kingston.** Therefore, the university should be providing recommendations for open space and safe and active transportation networks.

Another participant proposed that the university should take an active role in creating accessible housing for students.

The need to protect the wellbeing of tenants was presented. Concerns were expressed about a housing solutions initiative lead by the private sector. Pointing to the Princess Street Condos, one participant asked what is happening to the housing stock that will be vacated, how it will be used, and whether the development will be owned predominantly by absentee property owners?

The **connection between housing and transportation** was raised and specifically how housing in Kingston's core is not dense enough but the size of Kingston is conducive to active transportation. How do we incentivize downtown living for builders, residents, and students?

Solutions

Based on the issues mentioned-above, solutions proposed looked to address Queen's role in Kingston's housing market.

- **Develop a housing ranking system**/sustainability audit to evaluate housing conditions, transportation, and sustainable waste options.
- **Expand Queen's role in housing students.**

As Queen's is the largest landowner in Kingston and the entity with the most control over its land, the university should be housing more students and not externalizing the cost onto the city. A ratio of students being housed by Queen's needs to be determined to set a baseline for further action.

- **Support high quality housing for students.**

The culture of “student ghettos” and the resulting low standard of living for student housing must be addressed. Queen’s, in collaboration with private landlords, can document housing standards as a student project.

Additionally, students are often alone when making complaints to the landlord-tenant board. There is a need for the university to support students. This could ensure safe communities by providing support before students are choosing housing for those with children or not familiar with Kingston.

The idea of landlord “certifications” was raised to ensure landlords are maintaining student housing to good standards.

2. Sustainable Infrastructure

Issues within this theme included:

- Smart buildings,
- Modelling and sensing smart cities through urban seismology and machine learning,
- Efficient automatic monitoring of signals provided by urban infrastructure,
- Intelligent buildings,
- Rethinking design and materials,
- Passive building design – from houses to offices,
- Solid waste management, and
- Supporting sustainable development in other countries.

Discussion

The passive house on Wolfe Island was discussed. This house uses intelligent design to avoid mechanical cooling and heating systems. This passive climate system keeps the house warm in winter and cool in summer.

The focus is on intelligent design, not smart technology. It was proposed that we should focus on **rethinking and redesigning how we live**, with the aim of moving beyond the North American standard. Smart city modeling could be used to monitor signals for transportation to provide information to planners. This could be used to map various sounds, user counts, vehicle types, etc., which can be used to create a clear picture for the subsurface of the city.

As well it was proposed that Smart Buildings, which monitor rooms, could be used to reduce energy consumption.

Solutions

Based on the issues mentioned-above, solutions proposed looked to address Queen's role in sustainable infrastructure.

- **Develop guidelines** for mobility infrastructure for all university owned lands.
- **Develop a waste management plan.**

Faculty should monitor the waste produced in their research and identify where the waste stream ends. This should then inform the development of a waste management plan in collaboration with other companies.

Furthermore, the university should educate students about where their research trash is going to help prevent entire experiments from ending up in landfill and should identify ways to reuse and recycle research material.

3. Accessible Transportation Systems

Issues within this theme included:

- Active transportation infrastructure,
- How to change our campus to encourage walking/cycling,
- How to change commuter behaviour, and
- Policies that support alternative transportation choices and are inclusive in their design.

Discussion

The transportation system in Sweden was referenced as a model for safe and affordable transportation in Kingston as cities in Sweden are a similar size to Kingston. We propose that biking and walking should come first - bike paths should be cleared and bike routes should take higher priority than car routes to encourage walking and cycling to work. It was suggested that if we build it, they will come.

There is a need for policies and programming to support new infrastructure, and to promote and maintain active forms of transportation. It was mentioned that the results from a survey for the Queen's Alternative Transportation Sub-Working Group indicate that faculty and staff are not willing to switch travel modes.

How do we incentivize responsible travel behaviours? To improve sustainable transportation, Queen's-related actions will require collaboration with the city.

Solutions

Based on the issues mentioned-above, solutions proposed looked to address Queen's role in accessible transportation systems.

- **Increase the cost of on-campus parking**, for those that do not need it for accessibility reasons, to help disincentivize current driving behaviours.
- **Address parking policies in Kingston.** The city is reviewing zoning bylaws and is looking to shift from parking minimums to parking maximums. The university can lobby to reduce on campus parking to force a shift to other modes of transportation.
- **Create a car free campus** and selectively close streets, such as Union and University streets, to automobiles. This requires working closely with the city. This would also require a pedestrian mobility assessment of the older core of the campus and building a pedestrian mobility plan.
- **Finance active transportation** by subsidizing the cost of owning and maintaining a bicycle. This may include interest free loans, free maintenance, and how-to classes.
- **Implement an education campaign** on the costs and benefits of various transportation modes. A participant added that information of safe transportation and routes should also be included.

Lastly, it was highlighted that the need to include people with disabilities in the development of new mobility infrastructure on Queen's lands would be important.

Section 2: Reconciliation, Decolonization, and Indigenization

There is a connection between housing and building a **safe and inclusive space** for all. Furthermore, Queen's must consider how to ensure the safety of Indigenous students on campus, especially [considering the events at Chown Hall](#).

Additionally, there is a need to **embed Indigenous environmental knowledge** into the curriculum and encouraging students/faculty to implement this knowledge in sustainable action.

Section 3: Summary of Potential Projects for Next 12-18 Months

- Ensure all planning processes, outcomes, and references reflect, as a starting point, the land-based knowledge and priorities of local Indigenous peoples.
- Develop Queen's University Mobility/Active Transportation Network Guidelines for all Queen's University lands.
- Develop parking policies that disincentivize driving to campus.
- Develop a sustainability audit for student housing.
- Selectively close streets on campus to automobile traffic.
- Advocate for students and influence housing policy in the city.
- Determine a ratio of university-owned housing Queen's is willing to take on.
- Develop a landlord certification.
- Support students in finding safe housing options.
- Inform people of CO₂ emission/energy consumption for modes of travel.
- Develop awareness of safe biking/walking routes, information of sidewalk size, bike lanes, lighting, etc.
- Implement campaigns about biking routes: safety and overall health benefits.
- Leverage park-and-ride systems to advocate for change.
- Develop a bike campaign which provides interest free loans to purchase bikes, discounts at local bike shops, free maintenance, training.
- Look at the issues using local, global, student, and in-house expertise.
- Allow instructors to embed challenges/activities (local and global) in their curriculum.
- Develop a curriculum and extra-curricular opportunities that encourage students to address their own local (outside of Kingston) challenges with sustainable solutions appropriate for those locals/regions.
- Make these goals a part of our classes and training.

The successful implementation of the above-mentioned projects requires the involvement of the City of Kingston, the students, staff, and faculty of Queen's university, the Kingston Coalition of Active Transportation, and landlords.