Volt-Age
CONCORDIA

CURATION PROCESS SYNTHESIS REPORT

Concordia University

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1 Key recommendations

The recommendations in this report are drawn on quantitative and qualitative analyses of the previous Volt-Age funding call (the Seed Call) and on the Curation Process inputs. Lessons learned were instrumental in developing the Impact Call, integrating insights from a range of sources. Some of the main recommendations emerging from the analyses and outreach of relevance for the Impact Call include:

- Expand the network of researchers engaged in Volt-Age to include a broader diversity of research fields and areas of expertise, including social sciences and humanities;
- Create opportunities for a diversity of researchers to engage in Volt-Age research and strive for a better balance of representation;
- Encourage more holistic project teams and research goals in the Impact Call;
- Encourage and support the formation of resilient partnerships based on trust;
- Intensify efforts to leverage funds, including support from Volt-Age, and ensure that there are clear mandatory reporting frameworks in place;
- Include priority criteria for the Impact Call, such as research excellence and innovation, technology development and marketability, inclusive approaches, outreach, and impact;
- Support capacity building around intellectual property and target research to specific areas of the electrification in order to maximize impact; and
- Ensure that Equity, Diversity, and Inclusion (EDI) remain focal points of Volt-Age research and continue to advance opportunities to learn about EDI and applying it to research design and practice.

In addition to informing the development of the Impact Call, the results of the Seed Call analysis and Curation Process demonstrate clear pathways for the Volt-Age team to support researchers and partnerships in years to come. These include continuing efforts to support networking and partnership formation for researchers at different career stages, building capacity on topics ranging from intellectual property to EDI, and supporting in leveraging funds.

2 Introduction

Volt-Age is a research program funded over 7 years through the Canada First Research Excellence Fund (CFREF) and is led by Concordia University, in partnership with Dalhousie University, Toronto Metropolitan University, and the University of Calgary. Grounded first and foremost in scientific excellence, Volt-Age strives to welcome, recognize, and support individuals from a wide range of backgrounds and perspectives across every dimension of the program—from overall administration, to research team formation, student recruitment, and project collaborations. By integrating these principles into its foundation, Volt-Age aims to foster resilient partnerships, enable significant research breakthroughs, and drive transformative impacts that advance the decarbonization of society in Canada through electrification.

To ensure that these principles and values were reflected in the Impact Call, the Volt-Age administration team collectively implemented a collaborative process for curating research teams and projects for the Impact project round of funding. This Curation Process was designed to gather perspectives and feedback from researchers, administrators and students to help guide the creation of the Impact Call for Proposals. The Curation Process included a total of 16 events engaging approximately 200 individuals, including response collection activities, workshops, webinars, and informal meetups. Events were held in a variety of formats (in-person, hybrid, live virtual and asynchronous virtual) and invitations were circulated broadly to encourage participation. Invitations were sent to all PIs, Co-PIs, and academic applicants from the 81 proposals submitted to the first Volt-Age funding opportunity (the Seed Grants); as well as to all Deans and Associate Deans of Research of the four Concordia University Faculties, and the Vice Presidents of Research from the three partner institutions for dissemination.

The Volt-Age Impact Call has been developed based on the analysis of the first round of funding dispersed, the Volt-Age Seed Grants, as well as from input and feedback from researchers gathered throughout the Curation Process. This report lays out the process through which the Impact Call for Proposals was developed by the Volt-Age administration team, with clear recommendations emerging from each step.

3 Seed Call Analysis

The analyses and lessons learned from the *Volt-Age Seed Call for Proposals* offered a significant foundation to developing the Impact Call. Our primary objective for the Impact projects is to ensure they are transversal and multidisciplinary, engaging diverse groups of researchers with complementary expertise in engineering and computer science and also in social sciences and the humanities.

3.1 Analysis of Participants and Themes

Disparities In Researcher Participation

81 Seed Call applications were submitted, with 36 projects funded. It was noted there was an imbalance in the distribution of Principal Investigators (PIs) across disciplines. Of the 36 PIs, 26 are from the Engineering faculties of their respective universities: Gina Cody School of Engineering and Computer Science at Concordia University, Faculty of Engineering at Dalhousie University, Faculty of Engineering and Architectural Science at Toronto Metropolitan University, and Schulich School of Engineering at the University of Calgary (Table 1).

In contrast, only 8 PIs come from arts and science faculties, including the Faculty of Arts and Science at Concordia University, the Faculty of Science at Dalhousie University, and the Faculty of Arts at the University of Calgary. Additionally, just 2 of the PIs represent business schools: the John Molson School of Business at Concordia University and the Ted Rogers School of Management at Toronto Metropolitan University. No PIs come from Fine Arts departments.

Table 1: Researcher Participation

Faculty type	**Count**
Engineering	26
Arts and Science	8
Business	2
Fine Arts	0

This disparity is reflective of Volt-Age's emphasis on areas such as electrification, Internet-of-Things, and smart and sustainable built environments, which naturally attract researchers from engineering and computer science. However, incorporating perspectives from other disciplines to address broader societal and interdisciplinary dimensions, particularly the social sciences and humanities, is a core component of the Volt-Age mission and more efforts to incorporate these dimensions will be needed moving forward.

Departmental Representation

Table 2: Departmental Representation

Department	**Count**
Department of Information Systems and Technology Management *Including the Concordia Institute for Information Systems Engineering (CIISE) at Concordia and the Dept. of Information Technology Management at TMU*	3
Department of Building, Civil, and Environmental Engineering (BCEE)	12
Department of Chemical, Materials, and Petroleum Engineering *Including the Dept. of Chemical and Materials Engineering (CME) at Concordia, and the Dept. of Chemical and Petroleum Engineering at U Calgary*	3
Department of Computer Science and Software Engineering (CSSE)	1
Department of Electrical, Computer, Biomedical, and Software Engineering *Including the Dept. of Electrical and Computer Engineering (ECE) at Concordia, the Dept. of Electrical, Computer, and Biomedical Engineering at TMU, and the Dept. of Electrical and Software Engineering at U Calgary*	4
Department of Geography, Planning and Environment	3
Department of Mechanical Engineering *Including the Dept. of Mechanical Engineering at Dalhousie, the Dept. of Mechanical, Industrial, and Mechatronics Engineering at TMU, and the Dept. of Mechanical and Manufacturing Engineering at U Calgary*	3
Department of Physics and Atmospheric Science	2
Department of Chemistry	1
Department of Architectural Science	1
Department of Journalism	1
Department of Management	1
Department of Economics	1

The departmental breakdown further demonstrates this concentration of expertise. Of the 36 funded projects, 12 PIs come from the Department of Building, Civil, and Environmental Engineering (BCEE), demonstrating a strong focus within a single department (Table 2).

While these affiliations highlight the strength of research in specific areas, they also point the need for a broader inclusion of other departments to enhance the interdisciplinary and integrative nature of future calls.

Community Focus

A notable 69% (25 out of 36) of the funded Seed Grant projects identified a specific community they were working with or for. Through discourse analysis, five key communities were identified: municipalities, rural and remote communities, off-grid communities, buildings (home/residential and commercial), and cold climate/Northern communities.

Table 3: Community Focus

Community	**Total #**	**% of applications that specified community**	**% of total applications**
Buildings	10	40%	28%
Cold climate	1	4%	3%
Municipalities	16	64%	44%
Rural & remote communities	3	12%	12%
Off-grid communities	1	4%	3%

Table 3 outlines the number and percentage of applications that are working with each type of community identified. Most research projects are working within municipalities, more specifically within urban environments. Additionally, many projects are working with buildings, often in an urban centre. By explicitly recruiting researchers from diverse fields, Volt-Age will be in a better position to broaden the scope of projects to include more varied communities, ensuring that the Impact Call addresses a wider range of societal needs.

3.2 Leveraged Funds Update

A recent follow-up with Seed Grant researchers has revealed a discrepancy between the promised cash contributions and the actual funding secured, as many researchers presented unrealistically high figures in their applications.

- On October 15th, 2024, **35%** of the projects secured funding from committed partners. These projects are moving forward with contract finalizations and fund transfers.
- On October 15th, 2024, **65%** of the projects are still facing funding challenges, including:
    - ***Lack of clarity***: Uncertainty about funding sources and potential double-funding scenarios.
    - ***Delayed transfers***: Slow or incomplete fund transfers from committed partners, in part due to institutional barriers.
    - ***Lack of cash commitments***: Several projects did not have promised concrete financial commitments from partners.

3.3 Recommendations From the Seed Call Analysis

Expanding research fields and expertise

Given the observed concentration of PIs in specific areas, the Impact Call should aim to expand the pool of researchers, and the fields of expertise involved in Volt-Age projects. A wider range of disciplines will enable more comprehensive solutions and lead to innovation across fields beyond engineering and computer science. By encouraging the participation of researchers from the social sciences, humanities, and other underrepresented disciplines, Volt-Age can create a research environment that reflects the multidisciplinary nature of the challenges the program aims to address. To encourage and support diversity in Impact project teams, it is suggested to include different ways of categorizing areas of research that could encourage those with expertise outside of the expected disciplines to participate.

Balancing researcher involvement

While we acknowledge the benefits of researchers being involved in multiple Volt-Age projects, which encourages cohesion and collaboration across initiatives, this can also limit the breadth of research when a few researchers lead too many projects. Among the 36 PIs, 9 were involved in at least four projects, with some participating in up to 13 projects across various roles (PI, Co-PI, and Academic Collaborator).

To encourage broader participation and prevent predominance of a small number of researchers, Volt-Age can limit the number of times a single researcher can be involved in projects for the Impact Call. This change will help distribute leadership roles more evenly and ensure a greater diversity within the projects.

Intensified efforts to leverage funds and mandatory reporting

A more focused and centralized approach is needed to leverage funding for the Impact Call, which can help overcome institutional delays. Funding agreements between partners and researchers must be binding and have deadlines agreed upon in advance by all parties. To improve the success rate of leveraging funds, it is necessary for regular financial reports to be sent to the Volt-Age administration by project PIs to verify that deliverables are on track and that regulations set by Volt-Age on the use of funds are being followed.

It is suggested the Volt-Age administration take a more active role in this process to better support results while also reducing the pressure on researchers.

4 Partnerships for Impact

On May 16th, 2024, Chris Henderson and Aphrodite Salas led the first Volt-Age workshop emphasizing partnerships. While the workshop particularly highlighted Indigenous partnerships, the ideas and values presented are applicable to all partnerships. What emerged from that workshop was that partnerships with a broad diversity of relevant stakeholders are key to Volt-Age's success and must be based on trust and reciprocity. Researchers discussed the need for on-going communication with and participation from the partners throughout the research process and particularly the importance of coming together, ideally in person.

What was also highlighted through discussions was the need to clarify and elaborate on the specific ways in which partners should be involved in Impact projects and how they will participate. In other words, what do those relationships look like and how do they work?

The Volt-Age research program is modelling a new way of doing research, one that situates partnerships at the very center of the research process. Rather than the traditional model of research where research questions and research goals guide the methodology and structure, Volt-Age projects will ensure that partner needs and goals guide the process. The design of the research project should begin with the outcome, by asking directly what will come out of the project. This outcome will be determined by partners that understand the needs of the electrification industry and/or their community. In this way, Impact projects can be positioned to contribute to reaching desired outcomes through research.

This model of research makes strong, lasting relationships invaluable. Partners must be part of the design process of Volt-Age research projects and be involved in the governance of the project. They will be both engaged with and invested in the project and research process. Having committed partners is essential to the success of applications to the Impact Call.

4.1 Recommendations

Volt-Age should support researchers in developing partnerships and binding agreements. Defining the relationships between research teams and project partners, shared governance, systems of accountability, and expectations will be a critical element of applications to the Impact Call.

5 Curation Process – First Phase

The first phase of the Curation Process involved gathering responses to questions relating to criteria, impacts, and outcomes of Living Labs and Impact projects from researchers, administrators, and partners. This was done online asynchronously using the MIRO platform. The questions remained open from June 17th to July 12th, 2024. The feedback from the MIRO board fell into four main categories: criteria for project applications, infrastructure/support

systems for Volt-Age to develop, training opportunities for researchers, and Volt-Age activities/outputs.

5.1 Participants

A total of 66 individuals registered to take part in the first phase of the Curation Process, of whom 40 were based at Concordia University and 26 at partner universities (Table 4).

Table 4: Curation Process 1 participants

Category	**Number**
Current Volt-Age partner or collaborator	3
Current Volt-Age researcher (PI/Co-PI)	33
Interested in becoming a Volt-Age researcher	13
Interested in becoming a Volt-Age partner or collaborator	4
Volt-Age Admin team or committee member not directly involved in researcher	10
Manager, VPR Office	1
Not sure which of the above, interested faculty member	1
Provost Office's team member leading adjacent project	1

5.2 Responses to Guiding Questions

A total of nine questions were presented to participants within three broad categories related to: research criteria, partnerships and collaboration, and decarbonization impacts. Questions were not mandatory, and participants could choose to respond to all or only some of the questions. Responses were collected anonymously to promote openness and honesty of participants. A clustering exercise was conducted following the close of the MIRO board and the summary of responses to each question relating to Impact projects is provided in Table 5.

Table 5. MIRO responses

Category	**Question**	**Major points**

Research criteria	**Question 1** Criteria to ensure academic excellence	Novelty/Uniqueness
		Societal Reach/Impact of Academic Knowledge
		Research Excellence
	Question 2 Criteria to further knowledge advancement in Impact projects/ Living Labs	Dissemination
		Inclusivity and Breadth
		Demonstration and Application
	Question 3 Criteria that promote direct application of Impact projects/ Living labs research to decarbonization	Marketability
		Metrics
		Community Benefits
Partnerships and collaboration	**Question 1** Co-creation and partnership collaboration with communities, industry and or/ Indigenous people	Clear Expectations
		Diversity and Inclusion
		Co-Creation and Design
	Question 2 Integrating the principles and practices of EDI to partnerships and outreach	Knowledge Sharing
		Commitment
		Pitfall Avoidance
	Question 3 Joint development and implementation of Impact projects/ Living labs with partners	Frameworks
		Approaches
Decarbonization impacts	**Question 1** Metrics that should be required to track initial and	Carbon/GHG Reduction Targets
		Future Applications
		Community Wellness

	long-tern decarbonization impacts	
	Question 2 Catalysis of broad and widespread decarbonization impacts through scalability and replicability	National/Global Reach & Connection
		Future Applications
	Question 3 Unique and substantive decarbonization impacts that should be achieved to contribute to Canadian and global energy futures	Equity and Inclusivity
		Social & Environmental Impacts
		Tools & Techniques

5.3 Recommendations

A series of clear criteria emerged from the MIRO process, particularly around research excellence and innovation, technology development and marketability, and inclusive approaches, outreach, and impact. This exercise also illustrated the need for clear expectations with partners, commitment with agreements, diversity, knowledge sharing, and co-creation and co-designing research goals. Building these criteria into the Impact Call application template is a clear priority for Volt-Age.

6 Thematic Workshops

Five thematic workshops were held from September to November 2024, centered on topics drawn from the Volt-Age themes and platforms. The workshops were designed to provide opportunities for researchers to present project ideas related to each theme and have meaningful discussions around the potentials and challenges that could be faced in the Impact projects. The workshops were also structured to act as a springboard towards the creation of Impact project teams and ideas.

All researchers, regardless of attendance, were also invited to share and participate asynchronously on a Trello Board set up to accompany the thematic workshops and continue the development of teams throughout the Curation Process. Spaces were created for researchers to post their project proposals, allowing for further collaboration and team development outside of the workshops.

The thematic workshop series included five events:

- **September 4th**: Buildings and Communities – led by Andreas Athienitis
- **September 5th**: Living Labs and Community Energy Systems – led by Ursula Eicker and Jennifer Garard
- **September 10th**: Electrification Technologies – led by Pragasen Pillay
- **September 30th**: Internet-of-Things and Digitalization – led by Mourad Debabbi and Rei Safavi-Naini
- **November 13th:** Planning and Governance for Empowered Communities – led by Thomas Walker and Aphrodite Salas

6.1 Participants

In addition to the usual Volt-Age dissemination of invitations described in the Introduction, workshop leaders were also encouraged to invite academic guests and other partners to take part in the discussions. Below (Figure 1) is an overview of the demographics of those registered for the five workshops.

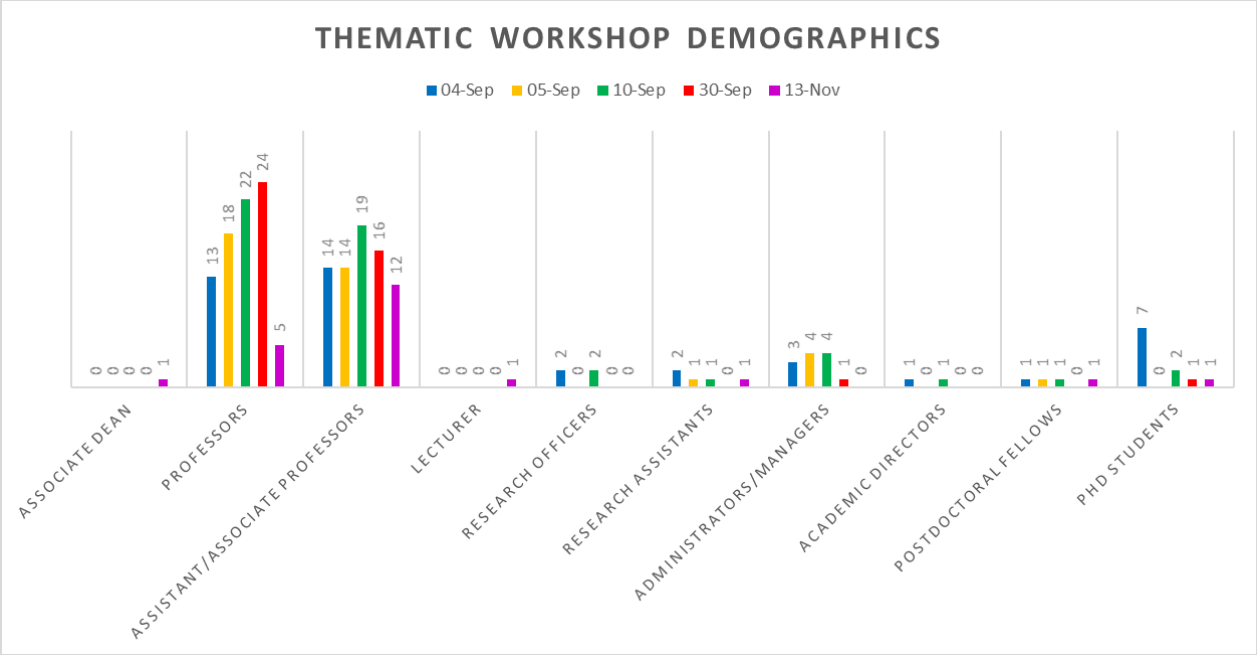

Figure 1. Participants registered for the five thematic workshops: Buildings and Communities (blue), Living Labs and Community Energy Systems (yellow), Electrification Technologies (green), Internet-of-Things and Digitalization (red), and Planning and Governance for Empowered Communities (purple).

6.2 Key Discussion Themes

September 4th Buildings and Communities: These discussions centered on the critical need for continuous collaboration between researchers, communities, governing bodies, and industry and private sectors to develop a robust framework to address resilience and sustainability through codification and policy updates for mass adoption of electrification technologies for buildings and communities. Additionally, these discussions highlighted the need for simulation and design tools that are approachable for community engagement as well as solutions that can work in a multitude of places, including cold climates in Northern Canada.

September 5th Living Labs and Community Energy Systems: The discussions in this workshop focused on the need to develop a comprehensive approach to project orientation that involves diverse perspectives, such as community, academic, government, private sector, environmental groups, non-profits, and tech/utility providers, to ensure that goals and expectations align across all stakeholders. Additionally, the discussions emphasized the non-traditional nature of living lab research methods which are community- and stakeholder-led goals rather than

research goals or questions. This type of research could better support mutually beneficial relationships built on trust and reciprocity.

September 10th Electrification Technologies: This workshop concluded that it is necessary for electronics, particularly batteries and battery components, to be designed from the outset to be recyclable and should include fault detection and cybersecurity monitoring as electronic networks become more and more enmeshed. The conversations additionally outlined two main objectives for batteries and battery research: a) improving existing batteries and battery recycling technologies, and b) synthesizing and/or finding new materials for battery production with an emphasis on local sourcing and/or local production.

September 30th Internet-of-Things and Digitalization: These discussions flagged the need for cybersecurity to be a foundational component to electrification that involves all stakeholders, beginning with long-term risk assessment of vulnerabilities of IoT devices and supply chains and ends with public engagement to foster public awareness and social acceptance of new technologies. Furthermore, these discussions highlighted the need for the standardization of security protocols and regular updates to policy and regulation to keep pace with technological advances that come with electrification.

November 13th Planning and governance for empowered communities: This workshop was designed to bring together researchers who work on socioeconomic issues surrounding electrification and decarbonization projects in Canada. The discussions highlighted various strategies for citizen engagement and ensuring the successful implementation and social adoption of new technologies and innovations. The strategies discussed included eco-nudging and integrating arts into the design of green energy and environmental projects. This workshop also emphasized the need for space to be made in the research process for the inclusion of Indigenous knowledge and values regarding technology-driven sustainability. The conversations also reflected a need to address additional social concerns, such as food security and air quality, when developing solutions for communities.

6.3 Recommendations

Discussions amongst researchers provided invaluable feedback to the Volt-Age team for the development of the Impact Call. There were many excellent project ideas across the five thematic workshops that were focused on specific areas within each theme or platform. It is possible that some of these ideas could end up as part of larger and broader Impact projects. The workshops also highlighted the need for Impact project teams and research goals to be more diverse and inclusive in order to develop impactful, scalable, and replicable solutions for electrification. It was noted that there is a need for the incorporation of social sciences and humanities into the projects and there was significant support voiced for working n interdisciplinary methodologies. Finally, these workshops highlighted the need for projects to adopt a more holistic approach to electrification research and sustainability through diverse collaborations and the integration of cultural and environmental priorities.

7 Early Career Researcher Workshop

This workshop, titled "Building Relationships with Broad-based Communities" was hosted by Chris Henderson on October 8th. Held as a virtual webinar, the event was designed in particular for early career researchers but also open to those looking to connect with community partners in their research. The workshop provided an overview of the vast network of stakeholders and processes implicated in the decarbonization of society, as well as the opportunities, challenges, and responsibilities of early career researchers working in related fields of study. The conversations that took place during this workshop centered on the concepts of interconnectedness and multi-dimensionality. The workshop highlighted the fact that technological solutions are inseparable from their societal contexts, thus researchers must be able to recognize and adapt different social and economic needs, infrastructure demands and bottlenecks, and stakeholder priorities to develop successful decarbonization solutions that contribute to a just transition to clean energy and electrification.

7.1 Recommendations

This workshop underscored the need for Volt-Age to ensure that the Impact Call and other funding opportunities leave space for and encourage early career researchers to be part of research teams and to apply for funding themselves. Calls for proposals, therefore, must be open to all researchers in order to ensure equity and inclusion. It is also integral for Volt-Age to support the development of early career researchers as they advance their research and core competencies, including expanding their networks and partnerships, developing transactional literacy, and creating intersectional energy futures.

8 Intellectual Property (IP) Workshop

The IP workshop was held on October 23rd and was led by Karim Zaghib, Simon Carignan, and Beatrice Ngatcha. The session brought together expert speakers to provide actionable insights on protecting innovations and navigating the patent landscape, empowering attendees with the tools to maximize the societal and commercial value of their research. The workshop offered attendees a robust framework for understanding and engaging with the IP process, with practical guidance tailored to the unique challenges of academic and applied research settings. The event reinforced the importance of integrating IP considerations early in the research process to ensure innovations are safeguarded and have the opportunity to achieve meaningful impact.

8.1 Recommendations

This workshop emphasized the need for researchers to work transversally and be wary of areas of the electrification network that are highly active as they may not provide pathways towards impact and innovation. It is important for Volt-Age to develop a process by which patentable innovations can be shared with the administrative team in order to support their application and prevent public diffusion of an idea. Additionally, it is necessary for researchers to perform due diligence by researching any existing mention of their idea to ensure that it is patentable.

This also means that it is important for researchers to be mindful about publishing their results before patenting their innovations.

9 Informal Networking Meetups

Four informal meetups were held in October and November. These were designed to foster meaningful dialogue between researchers, industry professionals, and community partners working in electrification. These in-person gatherings, held at Concordia University's downtown campus, provided a collaborative and informal space to discuss pressing decarbonization challenges, explore new opportunities, and connect with key players in the field. Each session featured guest speakers and focused on relevant themes that contribute to the collective efforts in advancing electrification and decarbonization.

9.1 Participants

The sessions had 21, 18, 18, and 30 participants respectively, made up of external guests, researchers, students, and Concordia staff. Members of the Scientific Committee were invited to give recommendations for external industry and community agents who would be potential Impact Project partners to give presentations at the informal meetups. The partners present at the events described below were recommended by Andreas Athienitis, Ursula Eicker, and Thomas Walker.

9.2 Key Discussion Themes

Networking meetup 1: October 8th: Driving Energy Storage Innovations: This session delved into advances in energy storage technologies and novel collaborations. The external guests in attendance were as follows:

- Arthur Herman, Director, District Energy, Equans Services Inc.
- Stephen Kibsey, independent agent.
- Mylène Jérémie, Director of Development, SOFIAC.

Networking meetup 2: October 22nd: Clean energy solutions for off-grid communities: This meetup focused on clean energy strategies to empower off-grid and underserved communities. The external guests in attendance were as follows:

- Lucile Moret, Electrical Engineer, ORPC Canada.
- Michal Bartko, Research Officer, National Research Council Canada (NRC).

Networking meetup 3: November 5th: Empowering sustainable communities: The discussion covered topics around energy efficiency and decarbonization plans for municipal buildings and sustainable communities. The external guests in attendance were as follows:

- Jean-Philippe Hardy, Energy Efficiency Technical Leader, Ambioner.
- Heike Schreiber, Research Officer, National Research Council Canada (NRC).

Networking meetup 4: November 14th: Sustainable Buildings and Construction: This session explored construction practices and materials that align with decarbonization goals in the built environment. The external guests in attendance were as follows:

- Martin Roy, Founder, Martin Roy & Associates.
- Livio Nichilo, Engineering Manager, Internat Energy Solutions Canada.
- Roland Charneux, Executive Vice-President, Pageau Morel & Associates Inc.
- Josef Ayoub, Director of the Science Impact Unit, CanmetENERGY.
- Sass Peress, Chief Energy Officer, Uber Energies.
- Stratos Rounis, Research and Development Manager, Unicel Architectural Corporation.
- Pierre Yves Chassain, Director of Innovation, Akonovia.

9.3 Recommendations

The sessions provided an avenue for researchers to build partnerships with community and industry partners, and gain insight into existing gaps that can be filled by research. Disparity in attendance between the sessions suggests a need to explore alternative mechanisms to facilitate discussions with external partners.

10 Curation Process – Second Phase

The second session of the Curation Process session was held on November 13th and was led by Chris Henderson. It focused on the importance of strong, reciprocal relationships to the success of a project seeking to have long-term impacts on society. This workshop emphasized the fact that project partnerships bring together research projects and industry, community, and business needs and should be part of larger initiatives. The workshop presentations by Jennifer McArthur and Michael Ross demonstrated the need for partnerships to be based on shared values, shared vision, and shared objectives; and that the time and effort to maintain and grow those relationships must take place at every stage of the research process – and afterwards as well. It was stressed that, when working with communities, researchers should aim to inform, not influence, and that their work is meant to serve the community. Therefore, it is the community that makes decisions regarding research priorities, not the researchers.

10.1 Participants

In addition to the usual Volt-Age dissemination of invitations described in the Introduction, researchers for this event were encouraged to bring their existing partners due to the focus of the workshop being on partnerships. 19 individuals (not including the presenters) were in attendance for the second curation workshop: 9 researchers and 10 Volt-Age staff members.

10.2 Recommendations

It is vital for Volt-Age to ensure through the Impact Call and throughout the lifespan of the selected projects that the focus is on relational not transactional partnerships. This workshop demonstrated the need for researchers to show up for their partners and to make time to strengthen them to ensure that the partnership is truly collaborative and reciprocal. Developing a strong partnership agreement and a robust reporting system will be essential to preserve the importance of partnerships and co-creation in the Impact projects.

11 Networking Event on Electrification with GCS

This was the final networking event of the year, held on December 3rd in-person on Concordia campus. Organized in collaboration with the Gina Cody School of Engineering and Computer Science (GCS), it provided a rich platform for dialogue between researchers, industry professionals, and community partners working in electrification. The event was designed to create an opportunity for researchers to build partnerships with external organizations. The main topics of discussion were technologies for alternative energy, energy conversion and storage, and electrification applied to transportation, buildings and Internet of Things. The event kicked off with welcome remarks from representatives of both the Gina Cody School and Volt-Age, followed by introductions from three funding agencies (NSERC, Mitacs, and InnovÉÉ), and then a series of 50 one-minute lightening talks from researchers and industry representatives. After these presentations, there was a networking reception where participants could seek out speakers whom they found particularly interesting to discuss and build bridges. Participants were identifiable by the colour of their lanyard – industry (green), researchers (orange), and staff and administrators (black). Industry representatives were encouraged to set up around particular tables to facilitate individuals finding one another, with participants already having an idea of the expertise and area of work of others from the lightening talks.

11.1 Participants

The event welcomed 94 participants, of whom 30 were industry representatives, 23 were researchers, 10 were from funding agencies, and the remaining 31 were staff and administrators. In addition to those participants joining in-person, four individuals listened in to the presentations, which were live-streamed online.

11.2 Recommendations

The format of the event was greatly appreciated by all in attendance. Though intense, and not possible to replicate too often, hosting such events to bring partners together and foster cross-fertilization of ideas across disciplines and sectors regularly is an important role for Volt-Age to play within Concordia and in close collaboration with different faculties and departments.

12 Equity, Diversity, and Inclusion (EDI) Workshop

The Equity, Diversity, and Inclusion (EDI) workshop was held virtually on December 5th and was led by EDI Scientific Director Tanja Tajmel and Volt-Age EDI Coordinator Pinar Guran Aydin. The workshop aimed to explain the main principles and values of Equity, Diversity, and Inclusion, as well as allowing space for researchers to reflect and articulate the potential and limitations of research projects with regards to EDI. The workshop highlighted the two main areas in which EDI must be addressed: Research Practice (Participation & Representation – recruitment, retention, and promotion) and Research Design (Research & Innovation – analysis, methodology, and outcomes). The workshop also emphasized the need for the inclusion of practices such as Gender-Based Analysis Plus (GBA+) to reduce societal gaps, improve community trust, and develop truly inclusive programs rather than relying on I-Methodology, where the researchers consider themselves as representatives of the users. The group activities and discussions illustrated that EDI principles must be considered at all stages of the research process, from designing the problem or issue to gathering data, to analysis, to solution and outcome development and implementation. Discussions explicitly on implementing EDI in the context of electrification research demonstrated the challenge of overcoming societal and disciplinary assumptions and including multiple perspectives throughout the process.

12.1 Participants

A total of 29 people participated in the workshop: 10 Volt-Age staff, 9 professors, 6 associate and assistant professors, 1 project manager, 1 research associate, 1 consultant, and 1 additional unspecified participant.

12.2 Recommendations

To create inclusive and equitable technology solutions, it is essential to involve diverse perspectives, experiences, and knowledge both in research design and research practice. It is important that Volt-Age encourage and support diversity in research teams and interdisciplinary methodologies. Additionally, it is critical for research teams to listen to, engage with, and learn about those who will be impacted by research outcomes, to ensure that needs

and concerns are addressed equitably and that social values define priorities. Ensuring that the social implications of the proposed project outcomes are included in the research plan can help to improve awareness of community needs and concerns, equitable application and implementation of solutions, and technology acceptance and adoption.

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