



McGill
Sustainability
Systems
Initiative

Initiative
Systémique de
McGill sur la
Durabilité

MSSI

NEWSLETTER

Mobilising a multi-disciplinary community of sustainability researchers

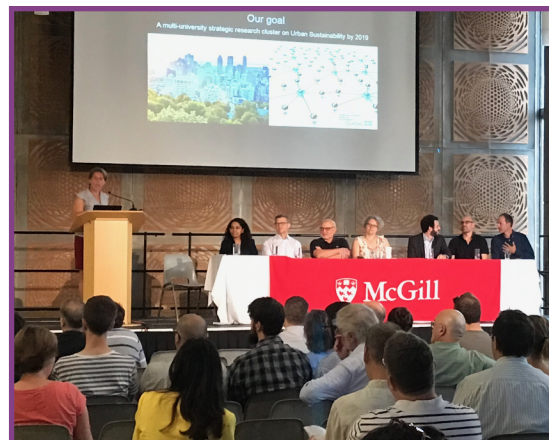
A MESSAGE FROM THE MSSI EXECUTIVE COMMITTEE

It's been an exciting two years! The MSSI was launched in September 2016 to create a hub around which the many McGill scholars with deep sustainability-related knowledge can work together on solutions-oriented research. We have been thrilled by the enthusiasm with which the academic community has embraced this important initiative, and the interest with which colleagues from across the many disciplines have come together to engage in discussion and address some of the most pressing problems faced by humanity. We look forward to a productive and fulfilling future for the MSSI.

Anja Geitmann
Dean of Agricultural &
Environmental Sciences

Bruce Lennox
Dean of Science

Jim Nicell
Dean of Engineering



2017-2018 HIGHLIGHTS

Invited speakers

Over the 2017-2018 academic year, the MSSI Invited Speaker series hosted guests from a wide selection of institutions across North America. These experts generously shared their experience in the sustainability sphere with the MSSI community. Each presentation was followed by a social event in which scholars and other guests from across disciplines could meet, chat and form new connections.

The academic year started in October with a presentation by the new director of Future Earth, **Dr. Amy Leurs**, who observed that global sustainability initiatives are increasingly bottom-up processes. November saw **Frances Seymour** from the World Resources Institute highlight the enormous potential of forests in tackling climate change, and 2017 ended with reflections from McGill's **Dr. Sarah Moser** on the complex social and political issues that surround emerging new cities. **Dr. Georgina Cundill Kemp** from the International Development Research Council started the new year with a discussion on the pros and cons for sustainability researchers of engaging in novel partnerships — in this case between academia and activist NGOs. (next page)

A LOOK BACK ON MSSI

The MSSI was officially launched in September 2016 with the mandate to develop and support a robust interdisciplinary network of McGill researchers and external partners who work together to tackle the most difficult and challenging issues surrounding sustainability. Starting as the 'Sustainability Sciences and Technologies Initiative', the program was renamed the McGill Sustainability Systems Initiative in May 2017 to better reflect that sustainability encompasses environmental, social and economic dimensions and that finding solutions to pull the world back onto a more sustainable trajectory requires the joint input of many disciplines.

Eighteen months, 70 Lightning Talks, 3 research themes, 14 Ideas Fund projects, 5 Innovation Fund projects, 6 invited speakers, 3 workshops, and more than 150 registered members later - and with much more to come - the MSSI is well on the path to bringing McGill researchers together to make significant contributions to the sustainability agenda.

Top Tweets - Follow us!

"Wow, @mcgillu won as Canada's Top 100 Greenest Employers for its commitment to sustainability, thanks to @SustainMcGill efforts on campus and @McGillMSSI sustainability research hub. Great work!"

"Microbeads are coming back...but now with a mission to save the ocean, New cellulose-based beads are safer for the environment and designed to absorb oxybenzone, a toxin from sunscreen that causes coral bleaching."



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MSSI FUND NEWS

Innovation & Ideas Funds

The first Ideas and Innovation Fund competitions received 60 applications.

Fourteen bold and novel projects, including 3 led by students (Ideas Fund) and 5 sustainability-based ideas ready to move closer to commercialisation (Innovation Fund) will be supported with nearly \$900,000 of MSSI funding!

HIGHLIGHTS (continued...)

The academic year ended on a high note with **Dr. Andrew Hoffman's** insightful advice on how academia must change if it is to retain its relevance in the 21st century.

We would like to thank all scholars who so generously shared their time and work with the MSSJ community and remind everyone that all presentations are available through the MSSJ Speaker Series webpage

Research themes and TD workshops

Other activities in the 2017-2018 academic year included the launch of the first three MSSJ research themes at both the downtown and Macdonald campuses (read more on this opposite). We are looking forward to announcing more research themes in the Fall 2018 semester.

Workshops

The MSSI holds workshops and seminars on subjects of interest for those working in the challenging and complex sustainability arena. The first workshop, held in Spring 2018, focused on the challenges and benefits of interdisciplinary research. The workshop included an exercise in co-design and was rated as both enlightening and useful by the 18 participants. Please contact us at MSSI@mcgill.ca if you are interested in participating in future workshops.



UPDATE FROM THE RESEARCH THEMES



In September 2017 the MSSI launched the first three of its main research themes: *Adapting Urban Environments for the Future*; *Creating Sustainable Materials for the Future*; and *Sustaining Landscapes for the Future*. The themes were selected following consultation with over 70 faculty members from across the university and reflect areas of academic strength and leadership at McGill. Each interdisciplinary theme is led by three scholars from different departments and provides a focal point around which researchers from across the university can congregate to address some of sustainability's most thorny and urgent challenges.

Research theme co-leads have been busy hosting workshops, identifying collaborators and engaging the McGill community. Here's a taste of what they've been working on...

The **Materials** group has identified their initial research focus as energy materials and nanomaterials. Their works will build on and bring together several projects already underway across the university. Nine project leads from a variety of disciplines, including management, law, medicine, science and engineering are familiarizing themselves with each other's work and are looking forward to a summer research retreat at the Macdonald campus.

The **Urban Environments** team got off to a flying start by welcoming more than 30 researchers from 12 departments to a winter semester theme launch and visioning session. Three sub-themes - *Montreal as a Living Lab*, the *Panama Research and Integrated Sustainability Model (PRISM)*, and *Sustainable Growth on an Urban Planet* - are under development and HQPs are being hired. The theme also awarded New Opportunities Fund grants to three projects that investigate urban lighting policy, consumer and disposal decisions, and impacts of the new 'Pink' metro line.

The October 2017 **Landscapes** group open workshop was attended by dozens of researchers from across the McGill community. Three core areas of research have been identified: *Northern Landscapes*; *Landscapes of Production*; and *Landscapes in Transition*, and HQPs have been hired to start elaborating the research program. In another initiative, the group held a workshop with partners from across Canada to identify opportunities for funding to expand research into the role of landscapes in providing ecosystem services and human well being.

LATEST RESEARCH FROM MSSI MEMBERS

Rieb, J. T., Chaplin-Kramer, R., Daily, G. C., Armsworth, P. R., Böhning-Gaese, K., Robinson, B. E., ... Bennett, E. M. (2017). **When, Where, and How Nature Matters for Ecosystem Services: Challenges for the Next Generation of Ecosystem Service Models.** *BioScience*, 67, 820–833. <http://dx.doi.org/10.1093/biosci/bix075>

Wachsmuth, D., & Angelo, H. (2018). **Green and Gray: New Ideologies of Nature in Urban Sustainability Policy.** *Annals of the American Association of Geographers*, 108, 1038–1056. <https://doi.org/10.1080/24694452.2017.1417819>

Landrigan, P. J., Fuller, R., Acosta, N. J. R., Adeyi, O., Arnold, R., Basu, N. (Nil), ... Zhong, M. (2018). **The Lancet Commission on pollution and health.** *The Lancet*, 391, 462–512. [https://doi.org/10.1016/S0140-6736\(17\)32345-0](https://doi.org/10.1016/S0140-6736(17)32345-0)

Albert, C. H., Rayfield, B., Dumitru, M., & Gonzalez, A. (2017). **Applying network theory to prioritize multispecies habitat networks that are robust to climate and land-use change.** *Conservation Biology*, 31, 1383–1396. <https://doi.org/10.1111/cobi.12943>

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