

The research project on zero waste

The problem

Of the 4.6 million tons of plastic produced in and imported into Canada every year, close to half consists of plastic packaging. The recycling rate of all these plastics taken together varies from 6 to 9 percent. A number of factors are involved, such as the operational limits of facilities, recycling that demands effective sorting, and uncontaminated containers, a true handicap when it comes to eliminating landfill (Braun et al., 2020).

The research project



credit: Koze productions

In 2021, searching for solutions to deal with this problem, the environmental organization Équiterre called on a research team from Polytechnique Montréal headed by professors Sophie Bernard and Virginie Francoeur to carry out a Canada-wide study on the levers of change for a transition towards a zero-waste product offer (retailer and consumer component). That research resulted in a report and scientific papers. The team devoted more than 6,300 hours to the zero waste study conducted with Équiterre.

The call to action

In order for the data collected in the context of this project to reach a broader public and spark enduring change in environmentally responsible behavior, researchers Virginie Francoeur and Sophie Bernard decided to innovate by expanding and diversifying the knowledge mobilization activities related to the project.



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The arts being an effective tool for promoting awareness of responsible environmental practice (e.g., zero waste), and having the potential to stimulate changes in behavior, an exhibition project was initiated in 2022. It aims to invite artists to create works based on data deriving from the Équiterre project on zero waste. Through this initiative, the researchers are hoping:

- That citizens play a proactive role, that they become stakeholders in the project and that a strong commitment results from it.
- To measure the impacts of the exhibit: a short questionnaire on eco-responsible behavior, environmental beliefs, and so on., and real-time visualization of data. Data will also be collected 3 to 6 months after the exhibition to measure changes over time..



credit : Koze productions

Expected benefits

- Promoting exchanges of ideas among scientists, artists and citizens (interdisciplinary and cross-sectoral dialogue)
- Proposing collaboration dynamics that venture off the beaten trackGiving a new existence to scientific papers (research report), focusing on how the results can be perceived (transformed) by artists
- Reaching an audience outside the university (i.e., mobilizing citizens towards zero waste)



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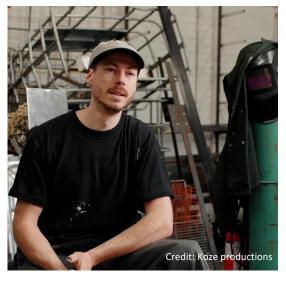






The exhibition Zer0

Description



issues to shine!

Ten artists and collectives from a range of disciplines, one challenge: to turn zero waste into a work of art! This unique exhibition shows how art can both draw inspiration from scientific data and contribute to sustainable change.

What do you do with research findings when you want to reach a wider audience? The answer is to organize a unique encounter between art and science by creating an exhibition that is at once contemplative, reflective and creative. Visitors are invited to reveal some of their core habits and beliefs with a view to measuring their commitment and to reflect on their sustainable behavior. The time has come for science and environmental

- Artistic medium: poetry, photography, video, sculpture and installation
- Screening of a documentary on the process
- Dialogue between artistic and scientific creation (projection of research results, survey to measure the impact of the exhibit on eco-responsible practice, participation in a group work on inauguration day, and so forth)



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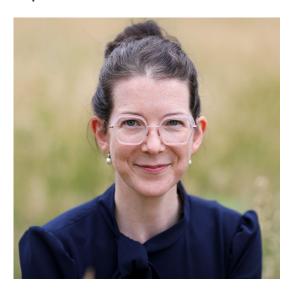
The curators and artists

Virginie Francoeur



Professor, researcher and writer, Virginie
Francoeur has taken on a commitment both
scientific and artistic. She teaches change
management and leads a research team on
environmentally responsible practice at
Polytechnique Montréal. Along with her
university career, she has published six books
in Canada and internationally (essays,
poetry, novel) and co-directed a
documentary film. In 2023 she received the
Women of Distinction Award from the
Women's Y Foundation in Montréal.

Sophie Bernard



Professor of economics at Polytechnique Montréal, Sophie Bernard is also scientific director of the Québec Circular Economy Research Network (RRECQ). Driven by concerns for social justice, her research focuses on behaviors and public policies with the aim of better management of material in our economy, in particular through zero waste. Sophie collaborates regularly with government departments, municipalities and non-profit organizations on mandates having to do with sustainable development.

ARTISTS: Martin Beauregard, Jean Désy, Marie-Chloé Duval, Virginie Francoeur, Jason Gillingham, Annie Groovie, Théâtre I.N.K., Rodney Saint-Éloi, Studio Ascètes and Bernard Voyer.

Exhibition website including artists biography (in French only)

The Zer0 exhibition was made possible thanks to the contribution of the Social Sciences and Humanities Research Council, the Québec Circular Economy Research Network, the Fonds de recherche du Québec, Équiterre, the Fondation et Alumni de Polytechnique Montréal, the Centre interdisciplinaire de recherche en opérationnalisation du développement durable, Mirari. Koze Productions and Kashika Studio.



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About the Biosphère

An architectural emblem of Montréal since the 1967 World's Fair, the Biosphère de Montréal became a museum dedicated to the environment in 1995 and joined the Espace pour la vie museum complex in April 2021.



The Biosphère de Montréal is a dynamic and inclusive place that brings together science, art, and citizen action like nowhere else. Just like the other Espace pour la vie museums, it inspires people to live in harmony with nature, and to take action for its protection.

The Biosphère encourages dialogue toward preserving our environment and its biodiversity, through powerful themes inspired by its particular location between forest, river and city, on the enchanting site of Parc Jean-Drapeau on Île Sainte-Hélène.

More about the Biosphère

Isabelle St-Germain, director of the Biosphère



Her love of the environment and of human nature led Isabelle St-Germain to studies in biological sciences. Following a research project with coffee-growing communities, she worked for over 15 years at Équiterre and contributed to the strategic development of that organization as deputy director. At Oxfam-Québec she devoted herself to communications and to public involvement as the organization's senior director. Her career has allowed her to acquire solid experience in the fields of the environment, social innovation and international development. She has entered into numerous partnerships and served on several boards of directors in relation to the environment and social justice. In July 2021 she became director of the Biosphère.

