

ACADEMIC INSTITUTION	HEC Montreal	PROJECT NAME	P6 Project
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NEED AND AUDIENCE

Polystyrene is a material used in many industries around the world because of its useful properties. It can be found in construction, single-use products, but its main use is in the packaging industry and in delivery which is growing with online commerce. In Quebec, 92,000 tons are consumed annually. This type of plastic is not recycled on a large scale in the province, more than 80% will be buried or released into the environment and our waterways. This is a scourge for the environment and an economic nonsense. Today, we have the technical knowledge to recycle polystyrene, but our waste management system is not adapted to its management because of its large volume and its risk of contamination of the ecocentre infrastructures. The P6 project responds to this problem by developing a collection network for polystyrene on the island of Montreal for apartment blocks, housing cooperatives and Hazelview rental buildings. Rather than burying the collected material, we plan to reuse it in the manufacture of furniture, decorations and flower pots that will be resold to the residents of the collect point and to the student community of the Université de Montréal. For residents and students, we will offer them the opportunity to make a difference for the environment by offering ecoresponsible, aesthetic and practical products. In addition, our collect service would be designed to be easy and suitable for partner institutions.

ACTION TAKEN

Since the beginning of the project, we have undertaken a number of research and synthesis projects related to the situation of polystyrene in Quebec and around the world. We identified key issues and made several assumptions using our contacts in the Residual Materials Management System and industry such as Groupe Gagnon. We are currently collecting P6 from a housing coop on the Island of Montreal where we have collected over 4 tons of polystyrene from 3 collections. The Hazelview Accelerator has provided us with funding and we are currently working with them on developing concrete flower pots and expanding our collection network. Hazelview residences represent several residential buildings across Canada. We built our first test product and are working on the next version. Preliminary manufacturing also allowed us to gather important data on costs and production capacity and the efficiency of our collection network. Our pilot project has given us a solid foundation on P6 and confirmed several assumptions. For the future, we will use the developed knowledge and internalized expertise to build a business model and value proposition that will be more developed and focused on our clients and our network.

IMPACT

Overall, we raised awareness on social media and at our collection center, reaching over 400 people. In addition, by capturing P6 at the source, we limit the contamination that can result from burial or release into our environment and waterways. By reusing Polystyrene as a material for the manufacture of flower pots we create ecoresponsible and committed products that use mainly recycled materials and therefore put little pressure on the exploitation of new resources. Finally, we help to lighten the residual material system and facilitate the disposition of Polystyrene, which has irregular and bulky volumes.

STANDARD METRICS			
(These metrics are related only to the project presented and represent work done since March 1, 2021)			
Individuals educated on climate action	459	Businesses educated on climate action	2
Litres of water conserved	-	Metric tonnes of waste diverted	4,41 Tonnes
GHG emissions diverted	12,37 Tonnes	Dollar value of waste diverted in CAD \$	2134,27\$
PROJECT START DATE	September 2020	IS THIS PROJECT WHOLLY-OWNED AND OPERATED BY THE TEAM?	Yes