

## **Economically viable polystyrene recycling by dissolution**

Globally, only 8% of plastic waste is recycled. Polystyvert is a Montreal-based cleantech company that revolutionizes plastic recycling by implementing a circular economy. Thanks to its unique low temperature and low-pressure recycling process by dissolution (physical recycling), Polystyvert's technology recycles and purifies plastic waste that is usually considered non-recyclable due to its high contamination. The result is a recycled raw material of high purity that can replace virgin plastics while reducing GHGs by up to 90%, according to our life-cycle analysis.

Polystyvert offers a short recycling loop for polystyrene and ABS, serving industries such as packaging, construction, electronics, automotive, and toys. Now at the commercialization stage with an upcoming polystyrene recycling commercial plant in 2026, Polystyvert's technology is protected by over 60 patents in 17 countries.

Growing concerns regarding contaminants in recycled plastics have recently been highlighted in a U.N. report, as plastic compounds contain many additives that are challenging to remove at the end of life. This is why there is an increased demand for purification processes in the plastic recycling value chain, which Polystyvert addresses with its unique technology to remove contaminants such as flame retardants, colour pigments, carbon black, as well as oil or paint residues and mixed plastics.

Polystyvert's patented dissolution and purification processes can also treat ABS, with tests undergoing with many clients at the pilot unit.

Environmental concerns and regulations related plastics recycling are encouraging companies to invest in more sustainable alternatives.

With many jurisdictions adopting zero plastic waste strategies, carbon emission reduction plans, and increased reputational pressure on brand owners, innovative solutions are needed more than ever. Polystyvert offers both an environmentally and an economically viable solution for styrenic plastics.

### **Speaker's biography**

Mme. Virginie Bussi eres holds the position of Vice-President, External Relations and Partnerships at Polystyvert. As a committed leader, she fosters building trusting relationships and mobilizing partners around innovative and sustainable solutions. With a strong background in communications and public affairs, she is at ease in highly regulated industries, promoting a co-creation approach for a common understanding of complex issues in a rapidly evolving landscape.

Her enthusiasm for environmental innovation is reflected in her commitment to developing authentic and meaningful initiatives to support business objectives in both local and international markets.

Mme. Bussières holds a bachelor's degree in Communications and Political Science as well as an executive MBA. Beyond her professional responsibilities, she shares her insights in public relations as a university lecturer and international speaker.