

Singapore
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Memsift Establishes Partnership with Birla Cellulose for piloting innovative membrane technology for Resource Recovery Applications.

Singapore based Memsift Innovations Pte Ltd and Birla Cellulose have executed a partnership agreement to explore, co-develop and implement Memsift technologies for Zero Liquid Discharge (ZLD) and Resource Recovery applications from the waste streams at its global operations.

Under this agreement Birla Cellulose, a global leader in the manmade cellulosic fibres (MMCF) and a part of the Aditya Birla Group (ABG), would be leading the piloting of solutions using the Memsift technologies with an objective of improving the closed loop technologies that can go beyond the currently available best available technologies and help set up new benchmark for closed loop processes in the MMCF industry.

Birla Cellulose plans to pilot and evaluate the state-of-the-art technologies from Memsift to recover more than 95% of water and chemical recovery from the waste streams and also with a benefit of lower carbon footprint by up to 80% compared to the conventional methods. The joint piloting is expected to be completed by mid of 2022 which will be followed by commercialization of the co-developed technologies.

This partnership was facilitated by ABG Innovation Fund and it enables pilots and co-development of new technologies leading to scaling up support for Memsift and innovative solution deployment at ABG. It also enables Memsift to engage with other projects at ABG businesses at early stages. Memsift has agreed to licence the technology to ABG for sales in India and other identified geographies in a later phase upon successful implementation of pilots in ABG. The STOMATE® and TS-30™ systems would be also piloted in various ABG's manufacturing sites and adopted for initial reference before exploring the chemicals recovery and ZLD market in large.

Dr J. Antony Prince, Founder & CEO, Memsift Innovations said, "We are very excited about this partnership and happy to have ABG as a long-term partner in Memsift. This will allow us to work closely with ABG businesses to commercialize the state of the art Membrane Distillation technology in industrial scale and we hope to build the largest MD unit for resource recovery application in the near future. This partnership is aligned to the vision of ABG innovation Fund which aims to work together with

tech-start-ups to develop solutions for the world's most pressing problems like water (SDG-6) and climate change (SDG-13) to preserve resources and a clean environment for the next generation.”

About Birla Cellulose Birla Cellulose, part of the Aditya Birla Group, is a leading sustainability focused Man-Made Cellulosic Fibers (MMCF) producer and operates 12 sites that apply environmentally efficient closed loop technologies that recycle materials and conserve natural resources. Its five global advanced research centres are equipped with state-of-the-art facilities and pilot plants. Its sustainable products Livaeco by Birla Cellulose™, Liva Reviva, Birla Excel™ (lyocell) and Birla Spunshades™ are designed with superior sustainable credentials. 100% of the wood used in Birla Cellulose comes from sustainably managed forests certified and controlled sources. Birla Cellulose collaborates actively with its upstream and downstream partners with an aim to create a bigger and broader impact on sustainability. It works closely with global sustainability focussed organizations like Sustainable Apparel Coalition (SAC), Canopy, Zero Discharge of Hazardous Chemicals (ZDHC), Changing Markets Foundation, Textile Exchange, WBSCD, Fashion for Good, Global Fashion Agenda, amongst others to continually learn and apply the best practices in its global operations and across its value chain.

About ABG Innovation Fund : ABG Innovation Fund partners with leading startups from around the world. This provides startups a unique platform to pilot, innovate and scale by working with ABG's businesses, which are leaders in their respective industry spaces (Metals, Cement, Telecom, Fashion retail, financial services, Textiles, Carbon black, Chemicals, etc.).

About Memsift : Memsift is the developer and manufacturer of the novel vapor transfer membrane STOMATE® and the thermal membrane system TS-30™. Memsift is providing solutions for high strength industrial effluent treatment, liquid-waste volume reduction, resource recovery, brine treatment, zero liquid discharge and aqueous/organic separations for various industries using their proprietary technologies. The STOMATE® is a highly hydrophobic hollow fibre membrane that prevents wetting.

Memsift's TS-30™ system is a unique membrane distillation process that recycles latent heat to achieve high thermal efficiency. Both these technologies brings down the industrial effluents treatment cost significantly and at the same time allow the treatment of some of the most aggressive chemicals which are difficult to handle.

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