



## PROJECT SUMMARY

<b>Ref No.:</b> MRIC-RIB-2001	<b>Title:</b> Follow-up of a pilot integrated anaerobic digestion and composting plant to recycle the organic waste produced at a large commercial mall in Mauritius
<b>Local Company:</b> JUA Group Ltd	
<b>Collaborating Institutions:</b> Stellenbosch University (SUN), Ascencia	
<b>Project Leader</b>	
Mr Jean Luc Sallustro	JUA Group Ltd
<b>Research Collaborators</b>	
<b>Name</b>	<b>Organisation</b>
Prof Johann F Gorgens	Stellenbosch University (SUN)
Prof William H L Stafford	Stellenbosch University (SUN)
Mr Tassawur Lecordier	Ascencia
<b>TECHNICAL ABSTRACT</b>	
<p>JUA designs, manufactures and commercializes biotechnologies (Cleantech) and as a first venture has developed patented bio-digestion and composting equipment for the treatment of organic waste. Through an industrial-size pilot installed and operated at a poultry slaughter-house, we have proven that adopting smart on-site waste management is technically and financially feasible within the agro-industrial sector. There is however an opportunity to expand the compelling benefits of our holistic approach for the treatment and valorization of organic waste to the domestic, commercial and agricultural spheres.</p> <p>In this context, JUA has entered into a partnership in Mauritius with a major property group specialized in commercial malls. We will implement a pilot plant to showcase a business model where financial viability is sought through the leverage of circular economy approach while demonstrating the associated social and environmental benefits.</p> <p>The pilot plant installed within a prominent commercial center will consist of JUA's patented Anaerobic Digester unit (bioRgas™), and Composting Station (orga-R™). Its objective is to transform organic waste generated by supermarkets and restaurants into two valuable by-products: biogas (a renewable source of energy) and biofertilisers</p>	



(compost and liquid boosters). In a circular approach, the biofertilisers will be used for the creation and maintenance of green areas within the commercial center.

We are seeking the support of the MRIC Research Innovation Bridge scheme with a view to demonstrate the technical feasibility and the commercial potential of this integrated process for the treatment of food and garden waste through anaerobic digestion and composting. We aim to show how alternative business models using innovative technology can contribute to enhancing the financial and environmental value of waste, and unleashing the potential for sustainable achievements within the commercial sector in Mauritius.

**Key Words:** Sustainable Waste Management, Renewable Energy, Biodigestion, Composting, Agro-Ecology