



## Envetec's Clean Technology Shows a Substantial Reduction in Green House Gas Emissions by Over 90% for the Treatment of Biohazardous Waste

**Independent, Peer-Reviewed Report of GENERATIONS, Envatec's Climate-Friendly Technology, Demonstrates Significant Impact on Waste-Related Scope 3 Emissions**

**Ballina, Co. Tipperary, Ireland. Oct. 13 2022** – Envatec Sustainable Technologies Limited (“Envatec”), the world’s first and only cleantech company with validated technology dedicated to treating and eradicating biohazardous laboratory waste and material, today announced independent data showing GENERATIONS’™ (1) ability to reduce Green House Gas (GHG) emissions by over 90%, compared to commonly used treatment approaches. GENERATIONS is a climate-friendly technology that safely treats biohazardous waste and materials, including plastics, glass, PPE, sharps containers, and other general laboratory consumables onsite at the source.

Envatec requested Carbon Action Consultants Ltd, a London based independent third-party assessor of sustainability, to perform a three-month evaluation and due diligence of the impact of the GENERATIONS technology on lowering carbon emissions. The study benchmarked the life cycle emissions of processing a fixed amount of biohazardous waste against different waste treatment methodologies including incineration, landfill and autoclaving. Scope 3 emissions are defined under ISO 14064-1 and the Greenhouse Gas Protocol – reducing these indirect emissions are recognized as key to limiting global warming to 1.5 degrees, as set out in the Paris Climate Accord. Scope 3 emissions in healthcare can represent up to 92% of a company’s overall environmental footprint.

“Scope 3 emissions are the pernicious problem in climate change, referring to the indirect environmental footprint that comes from a company’s value chain emissions. Unfortunately, Scope 3 emissions control is elusive due to its indirect nature,” said Brian Murnane and Dr Tahsin Choudhury, co-authors of the study. “Carbon Action’s data suggest that GENERATIONS is an efficient and convenient solution avoiding the need for incineration, landfill, autoclaving and transport, significantly



removing Scope 3 activity and their associated life cycle emissions.”

The healthcare industry produces almost 90 million lbs or 41 million kg of biohazardous laboratory waste daily. In addition, a report from Health Care Without Harm—a nongovernmental organization focused on reducing the healthcare sector’s environmental footprint—shows that healthcare contributes between 4% and 5% of global GHG emissions.

“We are observing a major step forward in mandatory sustainability disclosures in the U.S. and Europe, underscoring our decision to provide robust, independent data demonstrating GENERATIONS’ ability to reduce GHG emissions by over 90 percent,” said Malcolm Bell, Chairman and CEO of Envetec. “Simply put, companies cannot develop a robust climate change strategy without incorporating value chain emissions such as waste management, especially in the pharmaceutical, biotechnology, veterinary, and healthcare diagnostics sectors.”

The GHG comparison assessment report also highlighted additional benefits that extend beyond emissions while impacting the treatment processing chain. These benefits include the elimination of road congestion and the avoidance of transporting dangerous goods; enhanced circularity with an easily recycled end product; and reduction in energy bills by displacing power for steam and electricity. The study authors conclude that “(GENERATIONS)... real impact is as a compelling tool to drive GHG emissions out of the entire processing chain.”

Commenting on the findings of the report, James Connelly, CEO of My Green Lab said “Single-use plastic and disposing of biohazardous waste is one of the most intractable and environmentally damaging issues in Science today. Envetec’s GENERATIONS technology is a crucial enabler to achieve circularity in lab supply chains and has been validated by a trusted third-party to drive significant carbon reductions in a crucial hotspot in the industry.”

#### **ABOUT ENVETEC GENERATIONS™**

Given the life-science industry’s commitment to zero operational waste, including eliminating single-use plastics and the ability to recover waste through circular routes such as reuse and recycling, the standard treatment path has remained unchanged for almost 50 years. It involves removing the bagged, untreated waste by road freight for incineration and landfill.

GENERATIONS breakthrough technology safely treats biohazardous waste and materials including plastics, glass, PPE, sharps containers, and other general laboratory consumables on-site.

The patented GENERATIONS technology simultaneously shreds and disinfects infectious waste and materials directly at the source which can then be recycled. GENERATIONS, which is non-thermal and utilizes a proprietary biodegradable chemical, converts biohazardous waste into a confetti-like material that is entirely safe to handle and transport for recycling. GENERATIONS is designed to help laboratories begin phasing out today’s unsustainable activities, including incineration, autoclaving, landfill, and the public health risk associated with the transportation of biohazardous waste.

#### **ABOUT ENVETEC SUSTAINABLE TECHNOLOGIES**

Envetec’s vision is to create clean change with the world’s first validated clean technology for the treatment and sustainable repurposing of biohazardous laboratory waste materials at source, significantly reducing dependency on landfill, incineration, road haul and autoclaving. The commercial launch of the Envetec GENERATIONS technology follows significant investment spanning 10 years of research and development. Laboratories currently have no choice but to generate biohazardous waste [2]. Our mission is to transform those choices by enabling laboratories to move towards zero waste.

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[1] GENERATIONS is the subject of Trademark Applications in the EU, UK, US and Japan

[2] As evidenced by a recent report from the World Health Organization published in February 2022, highlighting the strain of managing tonnes of medical waste with existing healthcare waste management systems.

