

**Please complete the ABSTRACT TEMPLATE online, for Biomed 2023 Company Presentations**

**ABSTRACT TEMPLATE: CHECKLIST AND INSTRUCTIONS**

All items marked with an \* are mandatory to complete

The maximum number of words for this abstract is 400

Please be sure to complete the following:

Company name: **SGTECH** \* Website: **www.sgtech.co.il** \*

CEO name: **Shimshon Horn** \* Cell phone number: **0504415157**\*

Select a CATEGORY: **Biotech**/Pharma or Medical Devices or Health IT/Digital \*

(Delete categories you are not selecting)

Select up to two SESSIONS per abstract from the list below \*

(Delete sessions you are not selecting)

**12. Bio Convergence - Everything That Rises Must Converge.**

Answers below should not exceed 60 words per question: **SGTECH**

o **Executive Summary / Investment Rational**

Briefly describe the company's technology or therapeutic focus; the market opportunity, progress made to date, key partnerships or joint ventures, investment to date; and management strengths.

SGTECH offers technology for more efficient and sustainable operations of Anaerobic Digestion plants. The technology consists of the IES® process and microbiome surveillance. **The company's main goal is to enable economically feasible, carbon-neutral circular economy solutions.** The technology is based on a data-driven Integrated Ecosystem Solution (IES) that manages the microbiological anaerobic digestion process.

o **Core Technology**

What is the technology, its uniqueness, and its value proposition?

One of the main challenges of the biogas production process is creating high yields of sustainable energy. Ammonia concentration is among the factors that limit energy production. At SGTECH we reduce over 90% Ammonia, increase 30% energy production, and recover Nitrogen and Phosphorus from the liquid phase for the safe use of these resources back on the soil.

o **Product Profile/Pipeline**

Briefly describe the company's product/pipeline, status, and market potential. Discuss milestones, potential collaborations, and partnerships.

SGTECH is market ready after demonstrating a successful PoC in Israel. In Q4-2023 SGTECH will start implementing its technology with its European biogas partners.

First focus market- EU due to urgent need, strict biogas regulations, and market potential for retrofitting 20,000 plants and building new plants to exceed production from **18.4 bcm in 2021** to approx. **35-45 bcm in 2030**.

- **Business Strategy**

Briefly describe how the company will apply its core technology, and generate short-term and long-term revenues.

License the technology to biogas developers, to be issued in favor of plant operators, against payment for the first 15-20 years of the project's lifetime after construction. In addition, providing ongoing biological support.

- **What's Next?**

R&D, Preclinical / Clinicals, Organizational Plans, Financial Plans

1. Scaleup and commercialization. -Entering the European market with biogas players, validating the technology on a bigger scale, and expanding its partnerships and customer portfolio.
2. Funding round– round B from strategic investors
3. R&D – biological additives to Wastewater treatment plants for biogas enhancement and nutrient recovery.

**400-word Abstract:**

SGTECH contributes to fighting climate change by creating solutions for waste treatment, clean energy, and nutrient recovery.

SGTECH has developed a breakthrough process for livestock waste treatment based on the integrated ecosystem solution (IES), which manages the microbiological anaerobic digestion process. It harnesses nutrient recovery through innovative biogas digestate processing while managing the recovery of nitrogen and phosphorus from the digestate for sustainable reuse. This process results in stable renewable energy, rich organic fertilizer, and reusable water for livestock facilities and agriculture. The company's patented process accomplishes three key outcomes, in comparison to conventional systems:

1. Increased energy output of biogas by 20%-30%
2. Reduction of nitrogen (up to 80%) and phosphorus recovery (up to 60%)
3. Carbon negative operation, reduction of up to 60% of greenhouse gases.

SGTech has designed and built a small waste treatment plant in Israel that functions as a successful POC since 2019. During 2023 SGTECH will establish operations in the European market.

One of the main challenges of the biogas production process is generating sustainable energy in high yields. Ammonia concentration is among the factors that limit energy production. Additionally, in order to produce sustainable energy, the emissions resulting from biomethane must comply with current regulations (emission reduction up to 65% / 80% compared to fossil fuels for end-use as vehicle fuel/energy). Conventional processes result in high nitrogen concentrations, which cause emissions. The emissions are not the only challenge; the process byproduct (digestate) that is commonly spread as fertilizer pollutes groundwater and surface water. There are currently strict regulations prohibiting the direct application of digestate directly to the soil, as it causes significant and possibly irreversible soil damage. As farmers and biogas developers must meet strict regulatory standards, it becomes even more

challenging to disperse digestate at a reasonable and economical distance from the facility or farm in areas with limited land availability.

With SGTECH's technology, the reduced amounts of problematic compounds, less land is required for storage and more digestate can be spread across a smaller field. This is especially significant for farmers located in Nitrate Vulnerable Zones which have limited access to available land for dispersal with no alternative and cost-effective solutions.

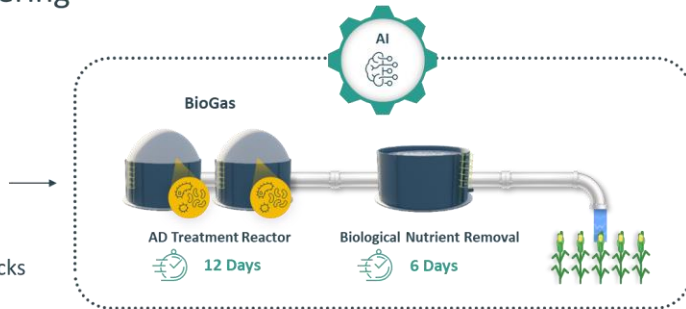
The company continues to research and develop **new breakthroughs in biogas management with a further focus on data integration (AI& Machine learning), microbiome analytics, and microbial supplements.**

## Integrated Ecosystem Solution (IES)<sup>®</sup>

New Engineering



Variety of Feedstocks



- Soil Improver P based Fertilizer; Irrigation & Fertigation
- Biological Process No Additives
- Zero Emissions

Conventional



Limited Feedstocks capabilities

