



Zero Carbon, Sustainable Farming

Bringing the next generation of
biogas production and nutrient recovery solutions



What we do

SGTech's Integrated Ecosystem Solution [IES] ® for Biogas production and Nutrient Removal

As high as
60%
reduction Carbon
negative operation

As high as
80%
Nitrogen
removal

As high as
25%
Total Cost of
Ownership
reduction

As high as
60%
Phosphorus
recovery

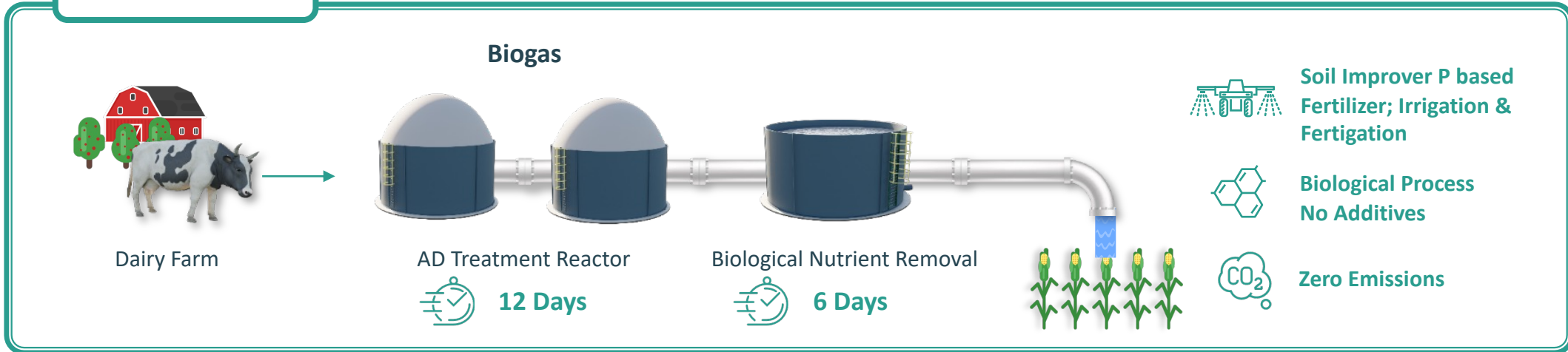
As high as
30%
increase
plant's energy
generation

How it works?

Integrated Ecosystem Solution (IES) [®]



SGTECH inside[®]



Conventional

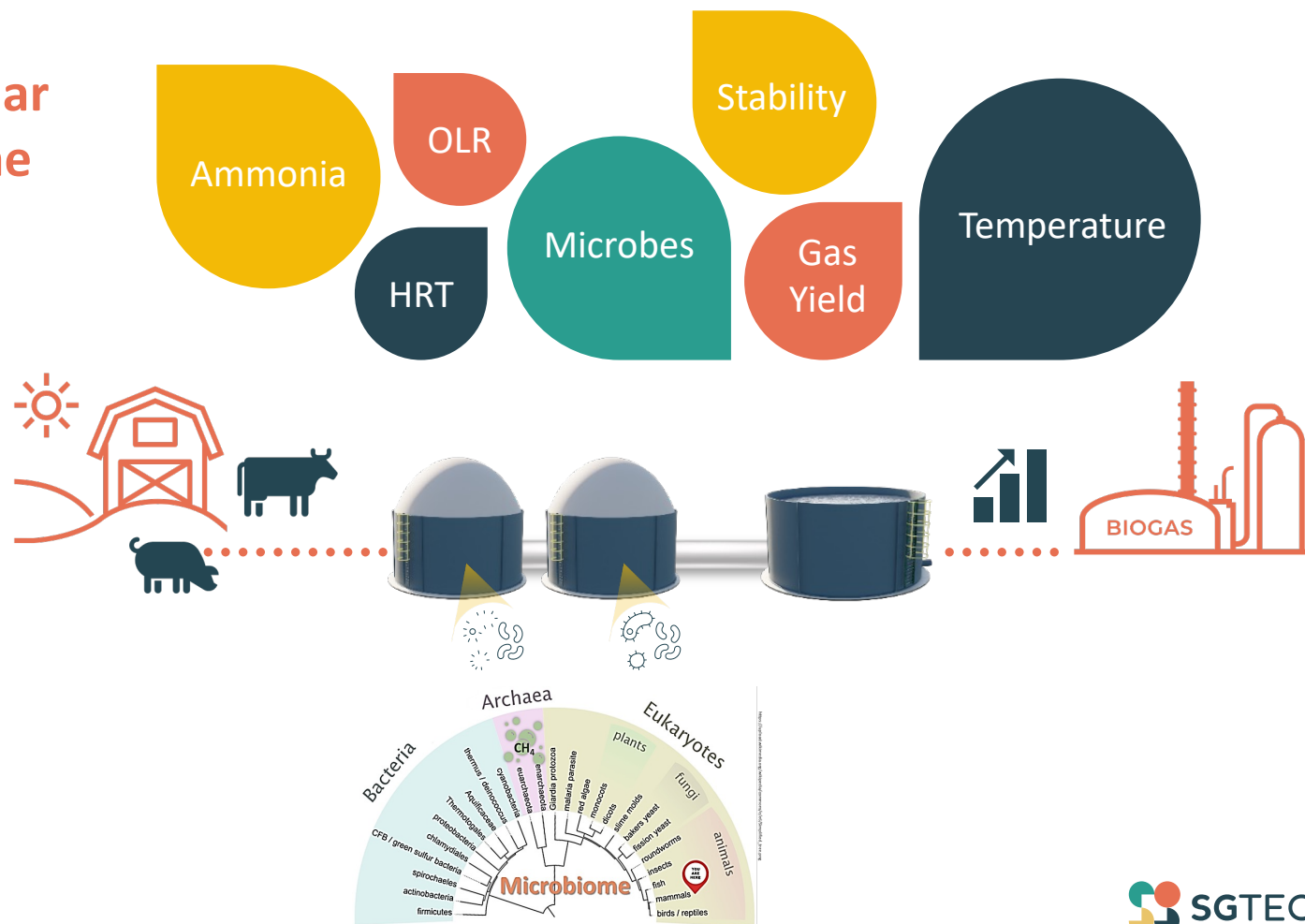


How it works?

Microbiome Management

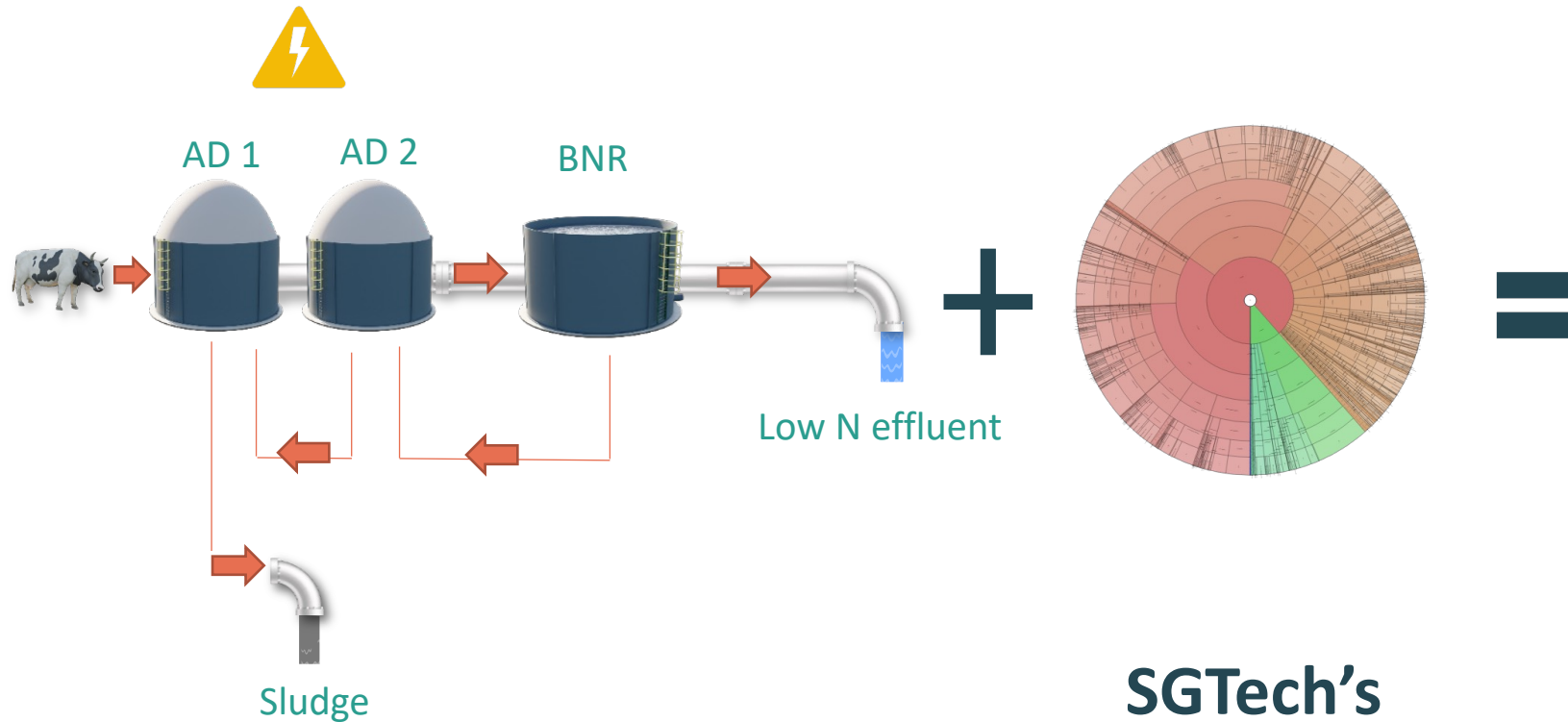
SGTech applies state-of-the-art molecular microbiology techniques for microbiome analysis designed for waste treatment

- IES's process contains microbiomes that specialize in Biogas production and Nutrient removal
- This level of analysis enables precision management of the process to achieve desirable outcomes



How it works?

Closed Loop System



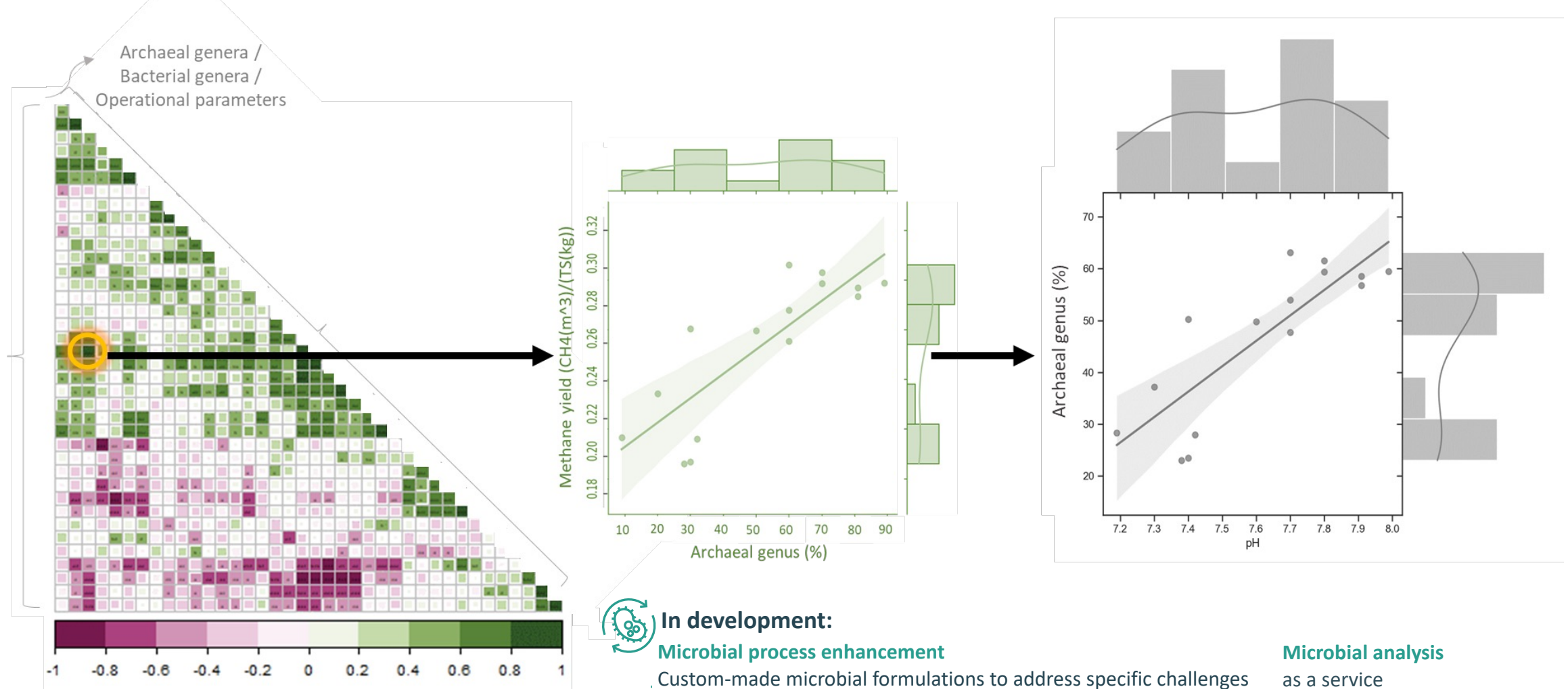
- ✓ Increased biogas production
- ✓ Sludge reduction
- ✓ Nutrient removal
- ✓ GHG reduction
- ✓ Monitor process stability
- ✓ Risk management during scale-up

SGTech IES ®

**SGTech's
Core Microbiome**

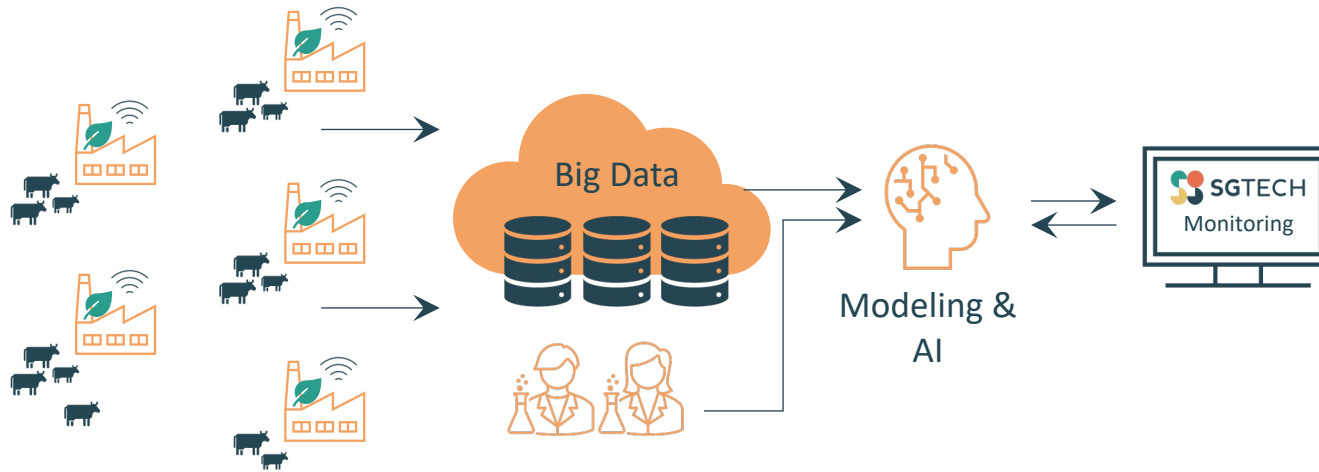
How it works?

Implementing Data Science Models on Analyzed Data, Retrieved From SGTech's Database of Microbial and Operational Parameters



How it works?

AI & Big Data



Easy
operation



Easy decision making and problem-
solving process



Low maintenance
expenditures



High system
efficiency



Our Status IES system in a Commercial-ready stage for Biogas Production

2022-2023

On-site & retrofit
plants producing
300kW up to 1MW

Deliverables

Comprehensive
process design,
biological and
system support

Thank You

We are inviting partners and investors
to join us in our journey!

Come meet us at **Booth R&I7**

Contact: contact@sgtech.co.il



IL Based Plant

System Performance

- Plant operation since 2019
- 100 dairy cows farm
- Input – cattle slurry, milk parlor water
- Manure capacity - 4,950 ton/y
- Biogas production – 130 m³/d
- Methane concentration – 65% vs. 55% acc. VDI 3475
- Biogas yield – 0.45 m³/kg oDM vs. 0.28 m³/kg oDM acc. VDI 3475)
- TN liquid digestate – 350 mg/l (70% removal w/w)
- TP liquid digestate – 150 mg/l (60% removal w/w)



European based – Upscale plant

Predictive Performance

- To be established in 2022
- Input – cattle slurry, cattle dung
- Manure capacity – 48,000 ton/y
- 500 kW_e plant
- Biogas production – 190 m³/h
- Methane concentration – 65%
- Biomethane production – 125 m³/h
- Biogas yield – 0.45 m³/kg oDM
- TN liquid digestate – 350 mg/l
(65% removal w/w)
- TP liquid digestate - 150 mg/l
(60% removal w/w)

