TeaTech

Revolutionizing Wastewater Treatment

Matinée GH Tenerrdis / Axelera (Lyon 17 MAI 2022)

Value proposition

TREATECH'S DISRUPTIVE HTG TECHNOLOGY PRODUCES LOCAL RENEWABLE GAS



(T

Technical achievements



- Test facility Villigen's WWTP (1 kg/h)
- Technology validated at lab scale with several types of feedstock



- Pilot plant operational at the Paul Scherrer Institute (100 kg/h)
- Successful gasification of organic feedstock

Proven track record of innovation and client validation



TREATECH

TREATECH'S POTENTIAL VALIDATED BY GOVERNMENT **GRANTS & INVESTORS**

- US\$ 2.94 million grant from EIC Accelerator
- US\$ 1.43 million grant from Swiss Federal Office of Energy (SFOE)
- Up to US\$ 7.2 million in co investment from EIB (term sheet executed)
- US\$ 1.54 million in other grants
- Raised US\$ 880k in institutional funding
- Won Climate KIC and Venture kick start up competitions

Total US\$ 5.9 million in non-dilutive funding



Validated commercial opportunities

Sector		Feedstock
	Municipal	Digested sludge
		Non-digested sludge
	Agricultural and livestock	Digestate
		Mix of agricultural waste before digestion
		Pig manure
		Microalgae
_	Food and beverage	Liquid residue from gelatin production
		Industrial biological sludge
		Coffee grounds
		Molasses residues from rum production
° 0	Chemical	Organic residue from monomer production
лЛР		Industrial biological sludge
		Plastic residues (polyamide)
TT TREATECH		

Case study 1: <u>Municipal sector</u> HTG unit of 3 t/h treating digested sludge (3'600 t_{DM}/year)

.

(Tr

TREATECH



Case study 2: <u>Food and beverage sector</u> HTG unit of 3 t/h treating molasse residue (3'600 t/year)

Case study 3: <u>Chemical sector</u> HTG unit of 3 t/h treating monomer waste (3'600 twaste/year)

TREATECH

Feedstock performance benchmark. Industrial plant of 3 t/h

	1.Digested sludge	2.Molasses residue	3.Monomer
Lower heating value [MJ/kg]	13	19	29
Carbon recovery in gas [%]	75	86	94
Specific energy production [kWh/ton]	2'784	3'716	7'096
Net methane production [Nm ³ /h]	92	170	331
Net energy production	8	11	24
[GWh/year]		1.4X MORE ENERGY THAN TREATING SLUDGE FOR SAME PLANT SIZE	3X MORE ENERGY THAN TREATING SLUDGE FOR SAME PLANT SIZE
	1.Digested sludge	2.Molasses residue	3.Monomer

Benchmark for a 3 t/h plant based on the results obtained in the laboratory prototype (1 kg/h) processing digested sludge, molasses residue and monomer waste.

TT TREATECH

Next steps

- Raise US\$ 13 million in series A (6 million already secured)
- First demo unit at client site
- Industrial partnerships

- 1st industrial scale unit
- Expansion in EU market

- Installation of 30 HTG units
- Financing debt

Get in touch

Avenue Alexandre Vinet 22 CH-1004 Lausanne

frederic.juillard@trea-tech.com

gael.peng@trea-tech.com

trea-tech.com