

PLANTYFUEL



PlantyFuel

Is developing disruptive breakthrough technology That transforms abundant lignocellulosic residues into low-cost Gen-2 ethanol – the most practical and sustainable fuel already integrated into global supply chains. Our modular, scalable systems enable biorefineries to produce renewable, net-zero fuels more efficiently and at unprecedented cost – without relying on subsidies – fully compatible with alcohol-to-jet (ATJ) pathways for sustainable aviation fuel and renewable materials, while farms and greenhouses can convert their own agricultural waste into clean fuel for machinery, power, and heat – strengthening energy independence and reducing emissions across the value chain.

Burning need FOR RENEWABLE FUELS

The world urgently needs massive volumes of renewable fuels to meet decarbonization goals and replace fossil energy.

Gen-1 ethanol helped pave the way but competes with food, water, and farmland – limiting its long-term sustainability.

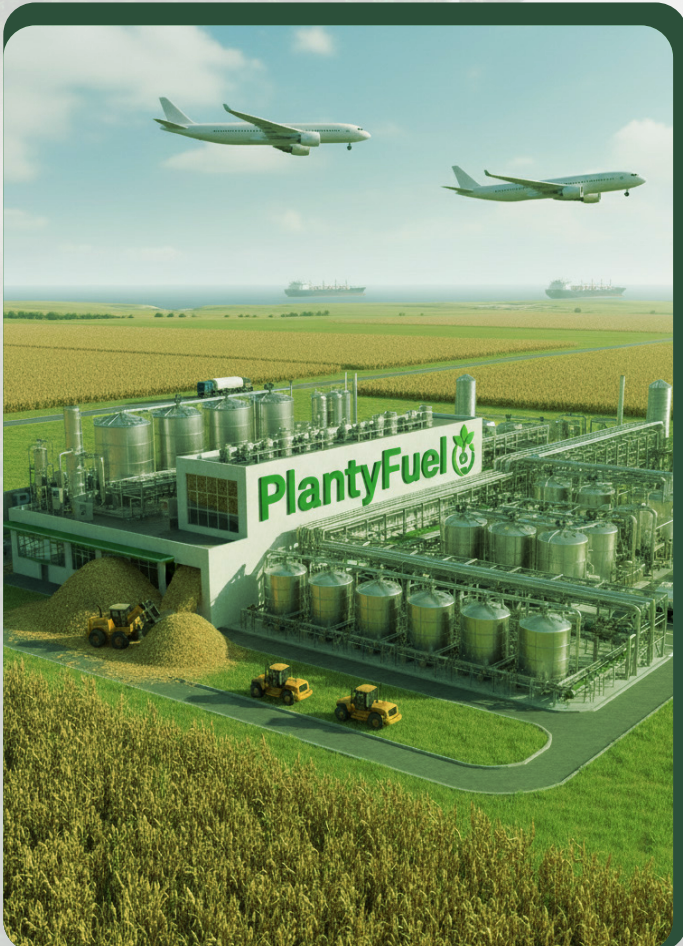
Gen-2 ethanol, made from agricultural residues, offers a far cleaner, lower-carbon path – yet existing processes remain too costly and complex to deploy at scale

Abundant feedstock AGRICULTURAL BIO-WASTE

Billions of tons of lignocellulosic residues are produced every year – an enormous, underused resource waiting to be transformed.

Global regulation and sustainability goals are driving the need for high-value, low-carbon solutions that turn waste into profit.

Outdated practices like field burning and tillage harm soils and release carbon, while current methods such as mulching, composting, or anaerobic digestion are sustainable but deliver little economic value.



The PlantyFuel Solution

A DOUBLE SUSTAINABILITY WIN

- ✓ Enabling cost-effective Gen-2 ethanol – a proven, safe drop-in fuel already embedded in global supply chains – our solution ensures immediate compatibility and efficient pathways for SAF (via ATJ), maritime, transportation, power generation, storage, & microgrids.
- ✓ Proprietary process developed at Israel's Technion, using mild aqueous, low-energy pretreatment with solvent retention and high enzyme recycling, while preserving premium lignin.
- ✓ Achieves 80% cost reduction vs. existing Gen-2 technologies reaching parity with Gen-1 and even fossil fuels, without competing for food, resources or land.
- ✓ Simplified, scalable design minimizes energy, material, & enzyme use enabling deployment from industrial biorefineries to on-site modular systems.
- ✓ Generates multiple green energy & material value streams: ethanol, carbon credits, CO₂, lignin, & sodium carbonate.



MARKETS

Greenhouse bio-waste to CHP & Farm scale mini-Biorefinery

- Estimated TAM 130-190B.
- System sales + CDR Income.

WITH ONSITE SYSTEMS, WE DEFINE A NEW BLUE OCEAN.



PROJECTIONS AND TIMELINE

- ✓ PlantityFuel achieved lab POC with real feedstock (TRL 3-4).
- ✓ Secured \$1.9m from NetZero for 3 years (IIA approved).
- ✓ Seeking additional funding - \$2m to accelerate time to market.
- ✓ Seeking Design & Pilot partners for onsite & biorefinery scale systems.
- ✓ Achieve TRL7 - 100 kg per day pilot by Q2/2027.
- ✓ Start sales for Greenhouse and farm segments 2028-2029.
- ✓ Biorefinery segment projected sales start 2031-32.

ACHIEVE \$50M REVENUES BY 2031.

Gen-1 Biorefinery co-locating & New Gen-2 biorefineries

- Estimated TAM 140-170B.
- JV, License, EPC.

WITH BIOREFINERIES, WE SET A NEW COST STANDARD.



Yoav Nahmias

Co-Founder & CEO

Experienced Chief Executive Officer, entrepreneur and industrialist with an established record in the water, Energy, Irrigation, agriculture and plastics industry. BS.c., MBA. TAU.



Dr. Gilad Alfassi

Co-Founder & CTO

Senior Lecturer at Braude College of engineering with a Ph.D. from Technion. Expert in biofuels, bioprocessing, and circular economy. Industry and academic experience in process engineering.



Prof. Yachin Cohen

Co-Founder & CSO

Emeritus Professor of Chemical Eng. Expertise in the processing, structure and properties of polymers, and biomass transformation into useful chemicals.



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