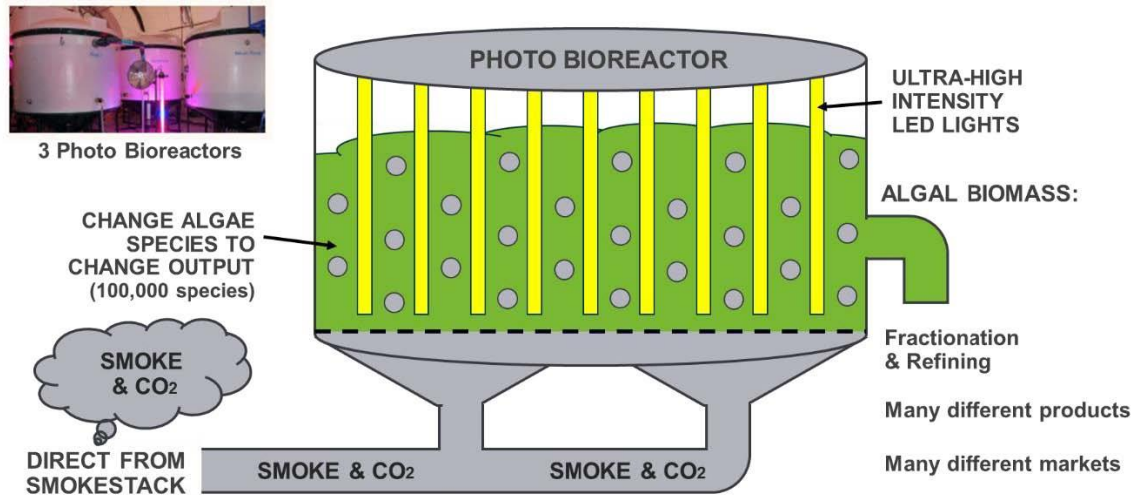


Revolutionizing Sustainability: INNOVO's Green Bio-Refineries



INNOVO's Green Bio-Refineries are leading the charge in revolutionizing sustainability using modular photobioreactors. These refineries play a pivotal role in addressing CO₂ emissions, particularly in heavy industry, transforming emissions into valuable assets such as algal biomass. This biomass serves as the foundation for animal and fish feed, as well as essential nutraceuticals like Omega-3.

The efficiency of photobioreactors surpasses traditional open ponds and bio-fences, offering superior space utilization and contamination resistance. Equipped with high-efficiency LEDs, these reactors operate continuously in any climate, allowing for co-location on existing industrial sites.

The optimization of algae species, facilitated by artificial intelligence and machine learning, ensures peak productivity. With over 60,000 algae species globally, the choice is tailored to the desired product output and emissions composition. Continuous adjustments, including lighting intensity, align with the growth cycles to achieve optimal algal biomass production.

Investors are increasingly attracted to the bio-refinery concept, bolstered by offtake agreements. Successful pilot projects in North America and Europe have propelled the technology into large-scale commercialization. Several major corporations, accounting for over 1.5 percent of global CO₂ emissions, are expressing commitment through orders and offtake agreements.

Looking ahead to 2030, scaling up bio-refineries aligns with the increasing demand for fish feed, animal feed, and nutraceuticals. By then, a substantial portion of global feed and omega-3 nutraceuticals will be sourced from algae, contributing to avoiding two Gt of CO₂ emissions annually. As production costs decrease through scale-up, the viability of algal bio-fertilizers will emerge, further reducing greenhouse gas emissions and promoting sustainable agriculture.

The World Economic Forum's Net-Zero Industry Tracker 2023 Edition

In Collaboration with Accenture

<https://www.euractiv.com/section/climate-environment/news/eu-reaches-deal-on-worlds-first-carbon-removal-certification-scheme>

The World Economic Forum's Net-Zero Industry Tracker 2023 Edition provides a detailed analysis of the progress emission-intensive industrial sectors are making worldwide, in their efforts to achieve net-zero emissions by 2050. This analysis focuses on sector-specific accelerators and priorities in the harder-to-abate aspects within production (i.e. steel, cement, aluminium, and ammonia), energy (i.e. oil and gas) and transport (i.e. aviation, shipping, and trucking).

The concept of a **"green premium"** refers to the additional price that environmentally sustainable products can command in the market. Specifically, it reflects the willingness of buyers to pay more for goods and services that have a lower environmental impact, such as reduced carbon emissions or improved circularity.

Interesting reading;

EU reaches deal on world's first carbon removal certification scheme.

<https://www.euractiv.com/section/climate-environment/news/eu-reaches-deal-on-worlds-first-carbon-removal-certification-scheme>

Walmart hits goal to reduce one billion tons of supply chain emissions 6 years ahead of 2030 target.

https://www.linkedin.com/posts/esg-today_walmart-hits-goal-to-reduce-1-billion-tons-activity-7166411800958169088-fWBB?utm_source=share&utm_medium=member_desktop