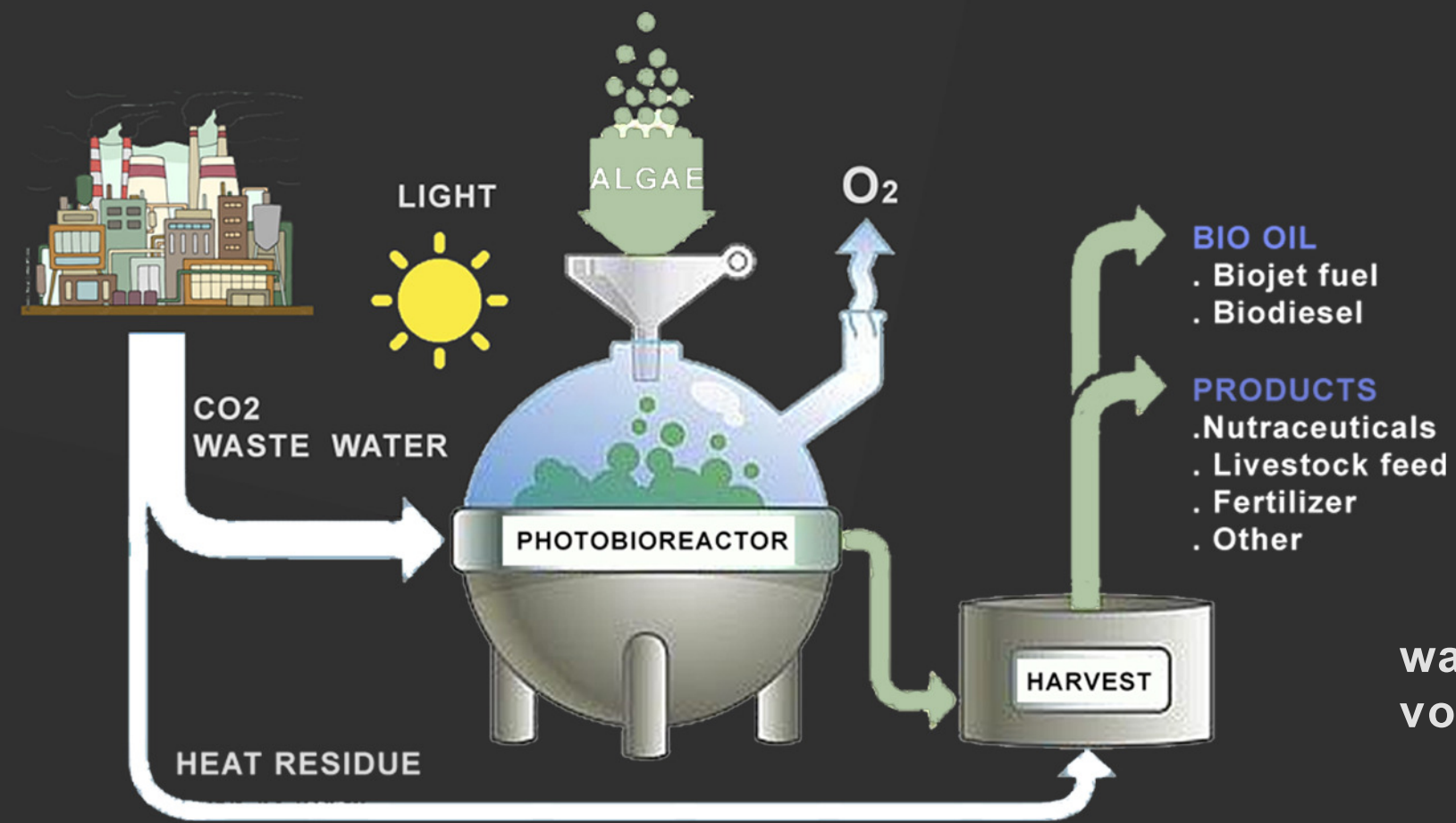


Microbial environments

THE ALGAE PROCESS



Bio-reactor

algae have become the latest feasible source being targeted for biofuel production. Microalgae is capable of producing oil all year long. Oil productivity of microalgae is greater compared to conventional crops. Microalgae yield 15–300 times more oil for biodiesel production than traditional crops on an area basis, are non-toxic and greatly biodegradable. Microalgae can propagate at great rates which can be 50 times more than that of the fastest-growing terrestrial crop

Light source

Baffle

Algae culture

water circulation
vortex

CO₂

Bio diesel
storage under
ground
Nutrient dose
addition

Internal
connections to
keep the algae
culture flowing

Open pond bio reactor

Closed bio-reactor

Photobioreactor

Kinetic facade

These nodes of the Diagrid structure have sensors to detect the radiation levels and direct sun hours. When the node is exposed to sunlight for long hours, it triggers a response to inflate itself and fill the void with liquid nitrogen.

The increase in surface area due to inflation will reduce the sun exposure for indoor comfort
The release of liquid nitrogen keeps the temperatures low.

Open pond bio reactor

Kinetic facade

