

STELLA

HYDROGEN TECHNOLOGY

WASTE TO HYDROGEN GASIFICATION

SOLVING A GLOBAL PROBLEM LOCALLY

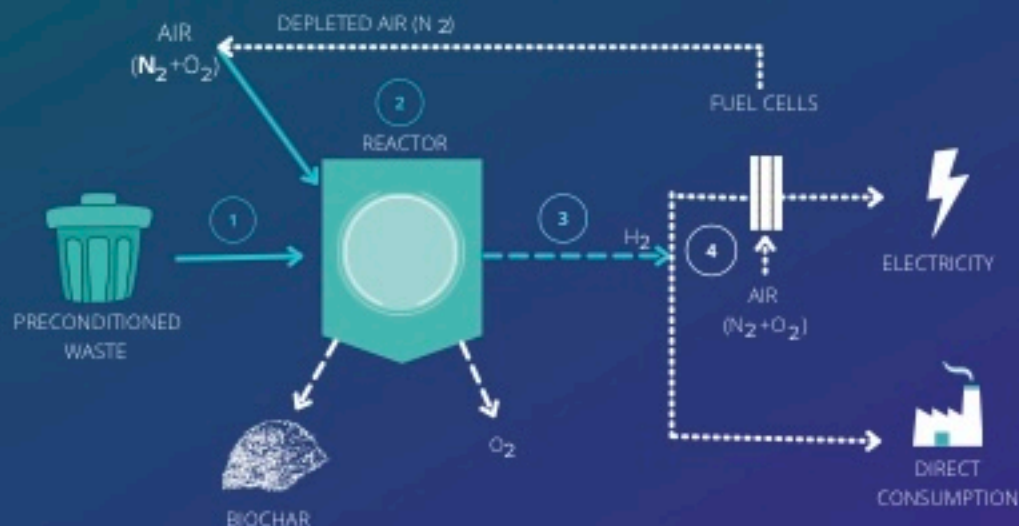
Waste to Energy Gasification is an answer for two of the biggest problems of our times: eliminating waste and producing clean energy.

Why is Floating Particle's solution different?

- Our system is optimized for small territories, villages, and developing countries
- It is optimized regarding the waste quality which leads to a simpler, adaptive process
- Part of the produced energy is applied to fully sustain the system
- The result is local and affordable waste management coupled with clean energy production



We use pyrolysis, which is considered the most effective gasification process in order to produce energy from waste.



How does it work?

1. The preconditioned waste enters the reactor
2. The reactor receives air and separates it into N_2 and O_2 . The N_2 is injected into the system, initiating the gasification process
3. Hydrogen and other products, such as Biochar and O_2 are produced
4. The hydrogen produced can be used to produce electricity, or for direct consumption such as in thermochemical processes, and transport supply.

THE BENEFITS

Our gasification process has numerous benefits which make it stand out on the market



- It only needs waste, air, and a small amount of water to operate
- In terms of energy, the system is self-sufficient
- Enables local waste management, which eliminates transportation costs and reduces the use of landfills
- It eliminates the problem of tars, because the temperatures reached in the center of the plasma envelope, allow its total conversion to hydrogen.
- Does not produce harmful emissions



- 14% return on investment (ROI) for the fourth year of hydrogen production
- Annual revenue estimated at EUR 1,267,140.00



By using our methodology, we offer a sustainable solution for waste management problems. By reducing the size of landfills, we can scale down methane emission, air, soil, and water contamination while producing clean energy from hydrogen.

