PIROSA · Transportation

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Country: Peru · Huanuco **Category:** Transportation **Impact Areas:** Mitigation, Circular Economy **Stage:** Prototype **Team Size:** 4 **Website:** — **Founder:** Francis Salinas Calzada

Elevator Pitch

PIROSA is a pyrolysis and gasification system that converts waste into gasoline and synthesis gas (syngas). With 54% efficiency and 70% less CO2 emissions, it is a self-sustaining technology that generates clean liquid and gaseous energy.

Climate Problem

We are addressing the serious problem of pollution caused by the accumulation of plastic and organic waste, as well as our reliance on fossil fuels. This is vital because PIROSA converts this waste into energy, emitting 70% less CO2.

Solution

PIROSA develops and redesigns automated modular reactors. In practice, we use pyrolysis and gasification to convert mixed waste into gasoline and syngas, using the latter to provide thermal energy for the equipment.

Revenue Model

We will generate revenue through two business lines: the direct sale of clean fuel (gasoline and syngas) and the sale or lease of our modular technology to companies and municipalities to treat their waste on-site.

Target Market

Our B2B market includes mining, construction, and energy companies that require decentralized energy and waste management solutions. In the B2G sector, we focus on municipalities and rural communities seeking self-sustaining solutions.

Social Impact

Persons Belonging to National or Ethnic - Religious and Linguistic Minorities, People Living in Extreme Poverty, Women

Demand Evidence

We validated this through meetings with mining and energy companies. Companies such as Flesan, Promigas, and Buenaventura expressed direct interest in using our system to manage waste and generate decentralized energy.

Competitors

In Peru, our competitors are Blest and Plastifuel; internationally, they are Plastic Energy and Brightmark. There are no direct competitors in our region. We stand out for our modularity and self-sustainability.

Founder Expertise

Our team brings expertise in agro-industrial and systems engineering, with a focus on prototype design, unit operations, and automation using microcontrollers. In addition, we are backed by patents.

External Support

We have the academic support and guidance of UNHEVAL. In addition, we have gained momentum by arranging meetings with companies such as Flesan, Promigas, PetroPeru, and the mining company Buenaventura to discuss future pilot projects.

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Founder

Francis Salinas Calzada

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