

## KOOLMILL

Transforming a global food system and improving how the world is fed, one rice grain at a time.

### Challenge

Rice is an antiquated and wasteful USD 550 billion global industry feeding 3.5 billion people daily; by 2050, this will be 6 billion, requiring 70% more rice. Yet, each year enough rice to feed 600 million people is lost from farm to fork, wasting food, energy and the resources deployed to grow that rice. Rice is the largest cash crop and the most significant agricultural polluter, with a Greenhouse Gas (GHG) footprint equivalent to aviation, which equates to 2.5% of all global GHG emissions. Specifically, rice is responsible for 10% of all global methane emissions



### Innovation

All current rice machines compensate for inefficiency with power, mechanically generating a pulsing pressure, creating heat, food loss, damaged rice and wasting power. Uniquely, Koolmill uses fluid dynamics to deliver a gentler, simpler, ultra-low power, cold process, producing more food from existing harvests, and at a higher quality, with less environmental impact.

### Impact

Contributing to 16 SDGs and working towards Net Zero Carbon, Koolmill has pioneered a paradigm shift in milling technology, addressing the resulting USD 127 billion triple bottom line loss. By delivering more food from existing harvests with 90% less power, and less lost and damaged rice, Koolmill is driving rural industrialisation and the productive use of mini-grid power. Made affordable by a novel, Machinery as a Service business model, now, all processors, regardless of size, gender, or location, can compete equally on price and quality in a shortened and re-balanced rice value chain. Koolmill is supported by the Innovate UK Government programme.

Our ambition is to be recognised as a global thought leader for cereal processing and to rapidly grow a substantial international business, redefining the rice industry for the digital era. We seek to engage with funders, technology, manufacturing, potential commercial partners, and end users who share our passion, vision, and values to feed 10 billion people sustainably.