With 500 million USD, we will remove 100,000 tons of Pacific plastic in 100 working days and produce 300,000 cubic meters of land reclamation material — this is merely the appetizer of our global solid waste utilization system.

Dear guests and colleagues,

Today I will present a systematic solid waste utilization solution,
built around inorganic polymer binder technology.
Using one validation scenario —
“Removing 100,000 tons of ocean plastic
within 100 working days”
I will explain the technical route,
the cost model, and the replication potential of this system.

This technology stems from my long-standing interest in environmental technology, and years of experience in inorganic binder research.
In 2012, at the age of 55, I resigned from my position at an American company in Shanghai
to fully dedicate myself to developing a method for producing
non-toxic fiber panels from agricultural straw.
I registered my own company in 2014.
In 2016, the technology I developed was awarded
the Golden Bridge Award by China’s Ministry of Science and Technology.
In 2017, I expanded my research /to imported solid waste in Guangdong, China.

I tested the binder with: tires, textiles, plastics, and circuit boards.
-Over time, I confirmed that the technology had
broad material adaptability and strong environmental performance.
I built a material compatibility model and a processing database,
laying the foundation for a scalable system.
In 2019, this binder technology was granted a national invention patent in China.

In 2022, I came to New Zealand
and began working with its volcanic ash to improve the binder formula.
My goals were twofold: to reduce cost,
and to use inorganic waste to treat other waste.
After two years of testing,
I found that the new binder could solidify plastic waste with up to 35% moisture content.

-Based on this, I designed a ship-based processing system:
-A 100,000-ton decommissioned cargo ship

–100 modular molds (10m³ each)
–Each mold processes 10 tons/day
–Goal: 100,000 tons in 100 days
–Budget: around $500 million
Steps: retrieval → dewatering → shredding → mixing → molding → curing

In March 2025, I filed a New Zealand patent for this system.
Lab tests show that the cured material is stable
after 8 months in seawater.
It solves chloride corrosion in seawater.
This binder technology was tested by Germany's TÜV Rheinland®.
Formaldehyde emissions, were only 0.005 mg/L — well below safety limits.

In 2021, I shipped panels made from solid waste from China to New Zealand
The material performed well, but long-distance transportation was costly.
So I developed a local DIY construction system:
– Small crushers, mixers, and molds
– Households collect local waste
– Volunteers guide the process
– No skilled labor or special equipment
– A 20m² house can be built for around $3,000.
– It's non-toxic, -fire-rated B1,
– and compressive strength is 20–25 MPa.

The concept is simple:
Environmental agencies provide equipment,
Green funds offer low-interest loans, families build their homes.
I have drafted separate patents for housing systems using plastics, textiles, and tires.

Let me clarify:
The Ocean Plastic Project is just a small part of our overall solid waste recycling system.
Many have asked:
"If the technology works, why hasn't anyone partnered with you?"
Over the years, many organizations —
even state-owned enterprises —approached me.
But they were focused on quick returns.
That's understandable.
But it doesn't match my goals.
My goal is to build a system to manage global solid waste,
and provide dignified housing.
This has never been about short-term profit.
That position has stayed the same — since 2012.

Let me close with this:
Solid waste is not garbage — it's a misplaced resource.
My job is to use technology to give it new life.
The core development work is now complete — for now.
What I need next is partnership — from UN-Habitat, UNEP, green funds, and from you here today.
Thank you very much.