



Coffee Zen

ENTREPRENEUR: Alex Ralston

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TEAM: 1

LOCATION: Johannesburg, Gauteng South Africa

CONTACT: alex@coffeezen.co.za



Coffee Zen is a startup innovating a circular use for one of humanity's most ubiquitous waste streams, used coffee grains. Entrepreneur Alex Ralston hopes to find an effective, circular application for this waste, giving it new value and keeping it from landfill.

“It's not just the environment and profit that drives me. It's about the people who can benefit, the promise of social enterprises to create jobs, and profit while impacting the world.”

Words and photography by Chris de Beer-Procter



ABOUT THE BUSINESS

We usually hear about entrepreneurs after they've already found some degree of success. But it's not often that we encounter stories about the grafting it takes to get there - the many hours of research, the trials and errors, the doubt and the motivation which drives budding entrepreneurs through the uncertainty of pioneering a new innovation. But this is where we meet Alex Ralston. Through his startup, Coffee Zen, Alex is exploring useful solutions to one of humanity's most ubiquitous waste streams, coffee waste.

"I think it's one of the most neglected waste streams," Alex says. The potential value of coffee waste first occurred to him while he was working in an office. He noticed that a colleague would take all their coffee grounds and stockpile it. When he asked why she did this, she told him that it was a brilliant fertilizer for her garden. "I wondered if I could use this waste stream to generate an income and build a business out of it," he reflects. He set out to discover the useful properties of coffee waste.

It is early days for Alex who has only been running Coffee Zen since late 2021. Right now, "it's just about testing and trying to build something out of what is pretty much nothing," he says. But already there are some promising uses for the waste, most notably in 3D printing. Alex has invested in a 3D printer and found ways to integrate coffee waste into the base material by up to 20%. If he

can use this method to create coffee cups at scale, he could help build a more circular economy around our daily caffeine intake.

"Why coffee? I just love coffee!" he says, sitting in the dining room of his parents' home in Johannesburg, where he has claimed their garage space to develop his business. He finds the humble beginnings of starting a business from your parent's garage an amusing cliché, "just the typical entrepreneur story" he laughs. But in one important way, Alex's story is not so typical.

His initial success with coffee waste in 3D printing might, for most entrepreneurs, be the end of the testing phase. But Alex doesn't see 3D printing as the best long-term solution. "From the perspective of circularity, I'd want to use it in a more natural way.

It's great to try to mix technology and waste streams but if I'm just creating another product that becomes waste, am I making a difference?" These are some of the difficult questions that circular entrepreneurs often face in their journey; how to balance making a profit with making the world better.

"I'm trying to bring it back to a circular focus and not just something that's going to sell," he says. And so Alex has followed his curiosity to various other uses for this waste stream. He hopes it will eventually lead him to the agricultural sector. "There's potential in mushroom

"We all take for granted that we get a cup of coffee in the morning and don't actually think about the impact that cup of coffee is having on the environment."



farming, it makes a very good substrate," he says. Not to mention, it makes a perfect feed for black soldier flies and an excellent source of nitrogen and therefore an excellent fertilizer. There is also massive potential in the service of collecting the waste from sellers like coffee shops, he's found. "We still have some way to go in understanding that it's a service that's beneficial to the companies, especially as policies like carbon taxes and credits become more mainstream," he notes. "Companies can pay to offset those expenses which will become more expensive in the future," he adds.

VISION FOR THE FUTURE

"I aspire to gain more experience working with new and vibrant people along the way. And to grow Coffee Zen into a well-known and recognisable brand."

Alex hopes that eventually his business can create jobs and help alleviate unemployment in some way, however small that may be. And in so doing help prevent this huge waste stream from ending up in landfills. On a more philosophical level, he hopes it'll remind people that there is so much more to a product's life cycle even once it's fulfilled its purpose. Or, as he likes to say, "your coffee doesn't end with your last sip."



ADVICE ON CIRCULARITY FOR ENTREPRENEURS

"The circular economy is an obviously different way of doing business, it is forcing companies to rethink everything from how they design and produce products, to how they relate with customers, basically what comes around goes around."

Enjoy the challenge of figuring out what your business needs to be a success.