

Meet Material Evolution, replacing cement as we know it

As part of our quick founder questions series – or QFQs – we spoke to Liz Gilligan, founder of Material Evolution, about climate change, turning passion into action and building carbon-efficient cement.

After completing my Doctorate at Queen's University, Belfast, I was at a fork in the road. I was either going to go into the world of academia and write about climate change for the rest of my life or I was going to start a company to put my passion into action. Morally, I couldn't look the other way while the world was on fire, so I decided that taking action was the right step forward to create real change.

Material Evolution was born in my parent's garage with the hope that normal people, like me, can make a difference in the fight against climate change.

Tell me about the business – what it aims to achieve, who you work with, how reach customers and so on

Our initial product is a low-carbon cement (85% reduction compared to traditional cement) manufactured by leveraging Alkali fusion technologies, reducing the need for a traditional, carbon-intensive, kilning process. Our

product is bringing low/no waste materials to market at scales and price points that enable adoption by cost-conscious industries.

For over a century, the Industrial Age has centred around the extraction of materials from mines or wells and primarily thermal treatment of materials for separation, refinement, and processing. This results in negative ecological impact in both the extraction of materials as well as the processing steps at later stages resulting in a world on the precipice of crisis.

At Material Evolution, we propose an alternative world. We believe that existing industrial processes frequently result in waste products that can be repositioned as manufacturing feedstocks.

How has the business evolved since its launch?

Since our inception in January 2020, we have grown from being a group of dreamers in my parent's garage to a company that is making seismic waves, aiming to reduce emissions in a carbon-intensive traditional industry.

Tell us about the working culture at Material Evolution

Our core values are innovation, teamwork, radical ownership and transparency in our sustainability efforts. Everyone who works at Material Evolution knows that what we are doing has the potential to change the world – which is both inspiring and extremely exciting!

Diversity is key to us too. As a female CEO, making sure diversity is kept at all levels of the company, not only makes sense morally but is actually beneficial for our business.

How are you funded?

We recently closed our *£15M Series A funding round* – which was led by KOMPAS VC, and had participation from Norrsken VC, Circle Rock, and SigmaRoc. This new set of funding will help to build our first commercial factory.

What has been your biggest challenge so far and how have you overcome this?

The main challenge we have incurred has been scaling production. Going from an idea to grams, to kilograms, to tonnes, has been a tricky process. The way we've overcome this has been by getting the right people around the table to help foster strong industrial partnerships and scalable technologies.

How does Material Evolution answer an unmet need?

We answer unmet needs in six key areas. They are:

1. Environmental: We offer a product that reduces emissions by 85% and fits into the industry's existing infrastructure.
2. Extraction of raw materials: Our products use waste-streams from industry available here in the UK which feeds into the circular economy. Rather than extracting raw materials in an energy-intensive way.
3. Burning fossil fuels: Our manufacturing process uses a low-energy technology which uses around 33kWh of energy to produce a tonne of our product, whereas traditional cement production uses over 1300 kWh to produce a single tonne of ordinary Portland cement.
4. Biodiversity: Our products do not negatively impact the planet – they are suitable for use near/in water sources and do not leach into the environment.
5. Legislation: Currently emission costs are 8-10% of the total manufacturing costs. With legislation being drafted, this could increase up to 40% of the cost of the materials. MeVo eliminates these emissions and associated costs.

What's in store for the future?

It's simple, we want to be the world's largest supplier of carbon-efficient cement.

What is one piece of advice you would

give other founders or future founders?

Don't give up during the tough times and get yourself a great co-founder to come on this journey with you – it's an exciting ride.

What is your daily routine and the rules you're living by at the moment?

Material Evolution is scaling at lightning speed, so I'm making more of an effort to bring more structure into my life through setting weekly goals and setting aside time for deep thinking, emails and team meetings. When you're running a startup it doesn't always work out – but it is a work in progress!

Liz Gilligan is the founder of *Material Evolution*.

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