



Media Release

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Carbon removal startup Aspiring Materials named on Cleantech Group's 2024 APAC Cleantech 25

Ōtautahi Christchurch, Aotearoa New Zealand, 18 April 2024:

Cleaning up for climate is the core mission of Ōtautahi Christchurch based startup **Aspiring Materials**.

Today, the company has been **recognised as one of the top 25 solutions in the APAC region**, by Cleantech Group.

It is another noteworthy accolade for the science-first startup who has plans underway for New Zealand's first carbon removal facility in Ōtautahi Christchurch. At pilot plant scale, the facility projects to offset 270kt/yr of carbon dioxide.

Aspiring Materials was also recently named as a **finalist in the NZ Hi-Tech Awards 'Most Innovative Hi-Tech Solution for a More Sustainable Future'**.

"We have an incredible solution that will decarbonise industry and revolutionise carbon capture. It's amazing to be recognised by the industry leaders and experts at Cleantech as we focus on scaling our technology so we can play a vital role in the mammoth task of rapid, permanent carbon removal." – Mark Chadderton, CEO.

The team joins a group of 24 other sustainable innovative companies across the Asia-Pacific region who are 'poised to make a significant impact in the next five to ten years'.

Aspiring Materials has developed a world-first carbon removal technology that utilizes commonly found rocks in their process that rapidly captures carbon dioxide, either from the point of emission or directly from the air. The solution is set to give certainty across the carbon removal sector, which has lacked verifiable methods for safe, permanent yet cost-effective solutions.



Selection for the Cleantech25 is determined by the **APAC Cleantech 25 expert panel**, who are active in technology and innovation scouting. These nominations are combined with additional APAC-relevant inputs from the **Global Cleantech100** process, which benefits from thousands of data points that track investments, partnerships and third-party awards. Companies with the strongest patterns of validation across all points receive the highest scores.

"A true innovation ecosystem is emerging and growing in Southeast Asia around the cleantech theme," said Richard Youngman, CEO, Cleantech Group.
"The presence of these 25 companies and the growing momentum in the Asia-Pacific region affirm my belief that it will not be the supply of innovation that limits our ability to address the escalating climate crisis."

The APAC Cleantech 25 companies will be honoured at the upcoming Cleantech Forum Asia on 7-8 May in Singapore. Aspiring Materials will travel to the forum and use the opportunity to also connect with investors, industry partners and other rising stars in the Cleantech sector.

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[Media images available here](#)

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About Aspiring Materials



Aspiring Materials is a carbon removal company based in Ōtautahi Christchurch, Aotearoa New Zealand. The team of scientists and chemical engineers have developed a world-first process that can rapidly and efficiently capture carbon dioxide emissions using magnesium, found in common ultramafic rocks called olivine. The technology is complementary to both industrial carbon capture and direct air capture facilities.

The company was founded by geologist Dr. Christopher Oze and a university colleague in the Civil Engineering department after a decade of collaborative scientific research into developing construction materials able to be produced from the scarce resources available on Mars.

Today, the focus is all about Earth, pivoting years of research and experience towards carbon removal in essential but hard-to-abate industries, using a commonly found abundant rock that contains the mineral olivine. Their patent-pending technology captures carbon dioxide emissions and locks it away permanently by transforming it into a naturally occurring solid - magnesium carbonate.

The Aspiring Materials process is net zero, it's a circular system and in addition to carbon capture, useful by-products are created that can be used to further abate and supplement emissions intensive materials - silica, iron and hydrogen. These materials are already essential in the steel, concrete and energy industries and demand will only increase as the world transitions to a low carbon economy.

In 2023, co-Founder and Principal Scientist Dr. Chris Oze and CEO Mark Chadderton joined the sought-after Breakthrough Energy Fellowship, a Gates Foundation two-year mentoring programme that accelerates startups who are developing climate technologies that have potential to change the trajectory of the Earth's climate change challenge.

The start-up has been supported with seed investment from Icehouse Ventures, Outset Ventures and more recently lead investor Motion Capital who have brought among others, K1W1 into the fold. The focus for the carbon removal company is to build and

begin operations at a pilot plant facility based in Ōtautahi Christchurch, enabling scale up for industrial applications and commercial trials.



About Cleantech Group

[Cleantech® Group](#) is a research-driven company that helps corporates, public sector, investors, and others, identify, assess, and engage with the innovative solutions and opportunities that are related to the world's massive, and growing, environmental and climate challenges. Our insights and expertise are delivered to clients all over the world through our Research, Consulting, and Events. We have been the leading authority on global cleantech innovation since 2002.

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