

Media Release
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Motion Capital leads successful capital raise of \$1.5M for sustainable carbon removal innovators Aspiring Materials.

Ōtautahi Christchurch:

Climate change is a trillion dollar opportunity for the global economy. The shift and reallocation of investment around the world is accelerating, and that's no different here on home ground.

NZ has always prided itself as an innovation nation and Christchurch based climate tech company **Aspiring Materials** (www.aspiringmaterials.com) is one who is leading the pack, here and on the global carbon removal stage.

Motion Capital, a new NZ based venture capital firm founded by Lachlan Nixon, has recognised this front runner and the huge potential they offer, leading investment of \$1.5M to progress the scale-up from lab to pilot plant phase.

"Aspiring Materials' innovative process technology enables the manufacture of materials that help decarbonise heavy industry. It is an excellent example of world-class kiwi technology that has significant commercial prospects through helping the world decarbonise. We've been impressed with the calibre of the technology and team and look forward to supporting them as they scale-up from the lab into commercial production over the coming years." - Lachlan Nixon, Founding Partner at Motion Capital

Aspiring Materials have developed a technology that mineralises commonly found rock, typically comprising the mineral olivine, to create a material capable of capturing carbon dioxide emissions - either directly from the atmosphere or at the point source of emissions (like industrial smoke stacks). That means decarbonisation can be achieved in emissions-intense industries.

The carbon capture material is naturally occurring - magnesium hydroxide - but traditional sources often come with high carbon footprints, cancelling out the positive impact the material can have in decarbonisation.

Once carbon has been captured by Aspiring Materials' process, that CO₂ is bonded to the magnesium as a carbonate, forming a solid state material. There's no chance of CO₂ leaking back out into the atmosphere. This is not about pumping CO₂ underground, it's about capturing carbon and locking it away forever. Plus, the resulting material, magnesium carbonate, has potential to be used as a material in building and construction.

The company's ambition is to provide decarbonisation solutions for heavy industry like concrete, steel and energy that are 'hard-to-abate' due to their high CO₂ emissions and the relatively few sustainable options to decarbonise safely and permanently.



This investment secures their next crucial stage of development - progressing the design and build of **NZ's first industrial carbon capture facility**.

"This investment means we're pushing 'go' on our next phase to scale up from our lab to a production facility capable of processing a tonne of rock a day. That shift in gear will be a shift in possibilities for rapid decarbonisation. Our investment partnership with Motion Capital gives us the ability to put what we're doing in front of serious climate impact investors across the globe. That's crucial to us at this stage of our journey."

- Mark Chadderton, CEO at Aspiring Materials.

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About Aspiring Materials

Aspiring Materials is a mineral conversion company based in Ōtautahi Christchurch Aotearoa New Zealand who has developed a process that can capture and abate carbon dioxide emissions from heavy industry using ultramafic rocks.

The company was founded by geologist Dr. Christopher Oze and civil engineer Dr. Allan Scott 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 and abatement in heavy industry, using a commonly found abundant rock that contains the mineral olivine. Their patent-pending technology captures carbon dioxide emissions and locks it away permanently in a naturally occurring solid - magnesium carbonate.

The process to capture carbon emissions is net zero, it's a circular system and in addition to carbon capture, useful byproducts are made that can be used to further abate and supplement emissions intensive materials - silica, iron, nickel 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.

Seed investors Icehouse Ventures and Outset Ventures supported Aspiring Materials in 2021 as they began their commercial operation. Recently lead investor Motion Capital,

joined by Icehouse Ventures, invested additional funds to help the company accelerate the design and build of a pilot plant in New Zealand, that would enable scaling their technology for industrial applications and commercial trials.



About Motion Capital

Motion Capital is a venture capital fund investing in kiwi technology companies that help the world decarbonise. Led by experienced venture capitalist Lachlan Nixon and entrepreneur Chris Harris, it seeks to support its companies to create significant impact and value from New Zealand.