

**TRANSFORMING THE
INDUSTRIES THAT HAVE
THE MOST IMPACT ON
OUR ENVIRONMENTAL
CRISIS**

zinc



MISSION: Transforming the industries that have the most impact on our environmental crisis.

We are looking for 70 exceptional individuals from all over the world who want to create a brand-new commercial venture to tackle the environmental crisis the world is facing.

Starting in October 2022, this cohort of 70 founders will join Zinc's venture-builder programme, where they will find their co-founder, develop their product and create their new company. Zinc will provide investment of up to £250,000, as well as an intensive 12-month programme of support.

Everybody joining this cohort will share the mission to transform the industries that have the most impact on our environmental crisis.

Could you be one of these 70 founders or know someone who could? Or, could you be one of the expert Visiting Fellows or partner organisations who help this cohort of founders to achieve their global ambitions?

The Mission

The Intergovernmental Panel on Climate Change (IPCC) has described this moment as Code Red for humanity, with climate change and biodiversity loss now widespread, rapid, intensifying, and in some cases irreversible. There is irrefutable evidence that human activities, especially through industries and businesses, are causing and accelerating this environmental crisis, and that the world will reach or exceed 1.5°C of warming within the next two decades.

Urgent action is needed in this decade to help businesses address these changes and their impacts, and adapt to the changes that are inevitable.

In light of the threat that the climate and biodiversity crises pose to human wellbeing and planetary health, there is consensus about the need for urgent transformation. In particular transformation is needed in impactful industries, which are not fit to meet the current and future needs of people and our changing planet.

In this mission, we are focused on 4 key sectors:

- **Farming, fishing and food**
- **Transport**
- **Construction and building operations**
- **Manufacturing and supply chains**

By developing new solutions to disrupt these industries, we are aiming to achieve three key outcomes:

- Reduce global GHG emissions
- Reduce air, soil and water pollution
- Reduce harm to our natural ecosystems

In this programme, we will be focusing on developing B2B solutions (i.e. solutions that are sold by a business to a business, rather than by a business to an individual consumer). We see this as an important focus where entrepreneurs can drive the most change, given these industries' contributions to the environmental crisis and their potential to drive impact, the increasing recognition and demand among businesses (and their customers) for innovations to meet these challenges, and the potential for these industries to lead to individual consumer change. We see this B2B focus as critical and timely.

We have already started to see the potential for new innovations to have a positive, sustainable and scalable impact on these problems, and more people than ever before are rising to the challenges. Their actions are supported by a growing global commitment to work together towards a more sustainable future, with more than 130 countries pledging to reach net zero emissions before 2050.

In 2021, there were 104 climate tech exits in energy & power, transportation & logistics and agriculture & food valued at a minimum of \$114 billion. Investment in 'climate-tech' is growing, totalling US\$87.5bn in 2020-2021, accounting for 14 cents of every VC dollar.

The COVID-19 pandemic has also underscored our global interdependence, and demonstrated the pace with which science and innovation can progress when there is sufficient incentive, momentum, support, collaboration and alignment of goals.

There remain significant untapped opportunities for start-ups to innovate further in key industries, to help unlock a world in which we reach net zero emissions, reduce pollution, and strengthen the health and resilience of our planet. There has never been a more important or urgent moment to help industries bring about this innovation and impact at scale.





OPPORTUNITY

OPPORTUNITY AREAS FOR INNOVATION



FARMING, FISHING AND FOOD

The farming, fishing and food industries have grown to around 30% of global greenhouse gas (GHG) emissions [1]. A quarter of these emissions are generated through land use conversion to agricultural land and farming, and three-quarters are generated by manufacturing, transport, processing and waste disposal. Farming, fishing and food industries are also the main cause of biodiversity loss, and are already being negatively affected by the impacts of climate change.

There are significant untapped opportunities across these industries to transform and innovate across the food value chain to reduce emissions and pollution, restore and regenerate declining biodiversity, and improve our resilience to the unavoidable impacts of climate change to our land and oceans.

We are looking create businesses whose solutions enable industry to reduce emissions, pollution and harm to our land and marine ecosystems — for example, through:

- Improving soil health
- Reducing the harms associated with feeds, fertilisers and nutrients
- Halting deforestation, and accelerating reforestation and regeneration of forest ecosystems
- Accelerating the use of regenerative land and marine farming practices
- Assessing food systems and enabling farmers, manufacturers, distributors and retailers to measure and improve sustainable food practices
- Unlocking the benefits of precision farming and changes in crop systems
- Enabling a more sustainable fishing industry, and protecting blue carbon ecosystems
- Preventing food loss and waste across food supply chains
- Improving agricultural technologies to reduce reliance on complex food packaging and transport to produce viable, fresher and tastier produce
- Adopting end-to-end commodity traceability of food quality and safety across agricultural supply chains
- Reengineering crops and food production techniques

[1] Global GHG emission data referenced within each opportunity area has been derived from different sources to reflect the most recent data currently available. The total of global GHG emissions referenced exceeds 100% due to some emission sources overlapping across sectors.

TRANSPORT

The transport industry — involving road, rail, air and shipping — is responsible for approximately 21% of global GHG emissions, and its emissions are expected to increase faster than that of any other industry. The biggest sources of emissions are from road (passenger) transport (45%), followed by road (freight) transport (29.5%), aviation (11.6%), and shipping (10.6%).

There are a range of exciting opportunities for innovation within the transport industry, in moving people (e.g. aviation, bus and coach, waterways, rail, light rail and metro, taxi and private hire, etc.) and moving goods (e.g. freight transport, maritime and port operations, road haulage, postal activities, storage and warehousing).

We are looking to develop solutions that enable businesses to improve how businesses move people and goods to reduce emissions, pollution and harm to our natural ecosystems — for example, through:

- Reducing demand for transport modes and trips that are environmentally harmful
- Deploying low-emission alternative energies, including biofuels, electricity, hydrogen and renewable synthetic fuels
- Optimising the movement of goods across sea, air and land
- Supporting innovations in urban planning to reduce transport emissions by design
- Creating innovations in vehicle technologies and related infrastructure and materials (e.g. tyres), moving towards zero-emission and low-pollution vehicles





We can design urban environments, and build and operate buildings that are both resilient to the impacts of climate change and have minimal negative environmental footprints. There are a range of exciting opportunities to transform this industry against a backdrop of accelerating urban population growth, and increasing demand for new buildings, retrofit solutions, and climate-resilient cities.

We are looking to develop solutions that enable businesses to improve how they design, build, retrofit and manage the places where we work and live to reduce emissions, pollution and harm to our natural ecosystems — for example, through:

- Reducing the use of high-emission producing materials, such as iron, steel, concrete and cement
- Accelerating environmentally friendly construction processes and technologies
- Enabling and improving the circular economy to reuse, recycle and responsibly source buildings and materials
- Improving urban planning, and informing the design and construction of climate-resilient cities
- Optimising the efficiency of heating, cooling and lighting systems to reduce overall demand and emissions
- Replacing high-emission sources of heat, cooling and lighting (e.g. gas boilers) with low-emission alternatives



CONSTRUCTION & BUILDING OPERATIONS

The construction and building operations account for around 30% of GHG emissions. Around a quarter (28%) of global carbon dioxide (CO₂) emissions are created by the operation of homes and commercial property, due to the energy used to heat, cool and light buildings.

Emissions, pollution and biodiversity loss are also driven by the material and construction processes across a building's entire lifecycle - from the extraction, transportation, manufacturing, and installation of building materials, as well as end-of-life waste management disposal. For example, 11% of CO₂ emissions comes from manufacturing building materials and products such as steel, cement and glass.



MANUFACTURING & SUPPLY CHAINS

Global industry and manufacturing are directly responsible for up to 30% of global GHG emissions, as well as being a major source of pollution and a significant and ongoing impact on our natural ecosystems. The manufacturing sector includes: clothing, electronic equipment, chemicals, paper and packaging, automobiles, pharmaceuticals, furniture, aerospace, metal goods, wood products, plastics and steel.

There are big opportunities to innovate within, and across, each stage of the supply chain from the extraction of raw materials, through material processing, manufacturing, assembly, distribution and waste.

We are looking to develop solutions that enable businesses to improve how we transform manufacturing and related supply chains to reduce emissions, pollution and harm to our natural ecosystems —

for example, through:

- Reducing the amount of raw materials needed and the negative impacts of their extraction
- Creating low GHG and less polluting alternatives to traditional inputs (e.g. chemicals, steel and plastics)
- Optimising material processing and manufacturing/assembly processes for better environmental impact
- Designing products to have greater sustainability
Replacing existing machinery and facilities with more environmentally friendly alternatives
- Creating less harmful ways to move and distribute materials, goods and finished products
- Reducing waste through recycling and/or reclaiming and remanufacturing of materials and products, including circular economy models
- Reshaping supply chains to be more sustainable, traceable and transparent



ZINC'S APPROACH

Our approach is guided by a set of cross-cutting principles:

- **Problem-led:** We are looking for founders who are problem-led and open-minded about solutions.
- **Science-rich:** We are interested in ways to develop, use and scale scientific innovations within this mission, and we are looking for founders who are passionate about science-rich solutions.
- **Commercial:** We are excited by the untapped commercial opportunities that exist within this mission, and we are looking to develop solutions that will attract further investment.
- **Scalable:** We are looking for founders who want to develop solutions that can scale and deliver impacts across multiple markets.
- **Global (North and South):** We recognise the extent to which the risks and causes of climate change cross national borders. We are enthusiastic about solutions focused around the world, including in the developed world and emerging markets.
- **Interdisciplinary approach:** We believe that bringing together individuals with deep expertise from various fields will enable us develop truly innovative solutions.
- **Inclusive and adaptive:** We are acutely aware that the impacts of the environmental crisis aren't being felt equally, and that this will worsen over time. We are committed to creating fair and just solutions for everyone who is affected now and will be in the future, and exploring solutions focused on short-term adaptation, alongside long-term mitigation solutions.

Do you want to transform one of these opportunity areas?

Apply for our latest Venture Builder Programme.

The mission to transform the industries that have the most impact on our environmental crisis is high-profile, high impact and urgent. This manifesto represents complex and unsolved global challenges, while also presenting significant market opportunities for new innovation, products and services.

We are looking for committed and ambitious innovators with deep expertise in these opportunity areas to come together to create global impact.

If you're ready to rise to this challenge on a global scale, our 12-month, London-based Venture Builder will provide you the funding and platform you need to build a new global, scalable and commercially successful venture.



Who should apply to be part of our next cohort?

We are searching for people who will become the next wave of mission-driven entrepreneurs, leading change and solving the problems outlined in this manifesto.

If you are passionate about this mission; have deep expertise in your field and a clear understanding of one or more of our opportunity areas; a desire to co-found a commercial VC backed business; and are driven to have environmental and social impact at scale, we are excited to see your application.

We are particularly keen to see applications from people with expertise and experience in one of the industries mentioned above: farming, fishing and food; transport; construction and building operations; and manufacturing and supply chains.

We're also looking for people, from these and other sectors, with the crucial skills required to build scalable, innovative solutions such as product, engineering, commercial, science and marketing.

If this sounds like you, or someone you know, please see this link to apply today.

Now is the time to make your mark, helping businesses to tackle the environmental crisis by reducing their emissions, pollution, and harm to our natural ecosystems.

[APPLY TODAY](#)

To find out more about the programme and the support we offer, visit

www.zinc.vc/venture-builder

To learn more at an event, visit

www.zinc.vc/events



To contact us at any time,
please email venturebuilder@zinc.vc with questions.

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