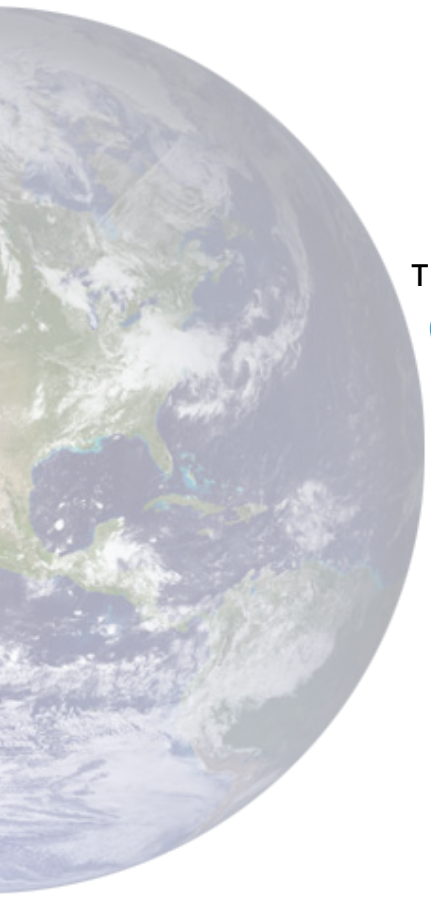

THE GLOBAL

CO_2 SCIENCE INITIATIVE

Executive Summary

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The Global CO2 Science Initiative

Turning CO2 emissions from a liability into an opportunity

Global Climate Change: Challenge vs. Opportunity

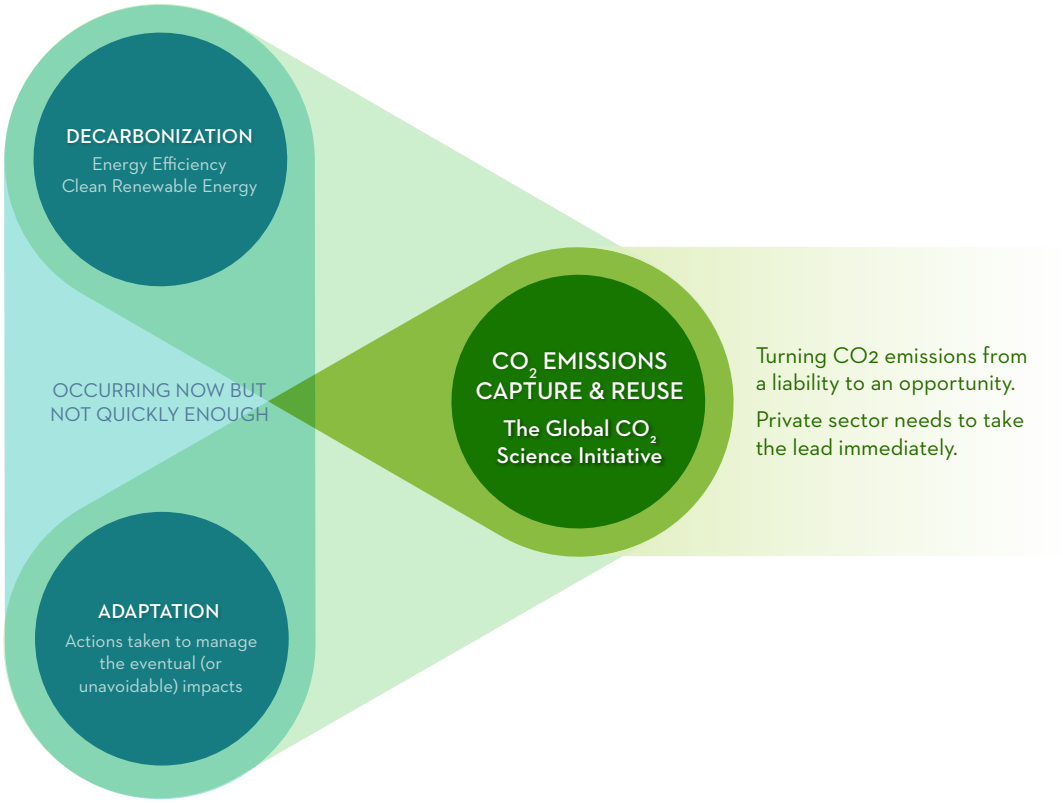
Human-generated CO2 emissions are driving changes in the earth's climate that threaten to impact our global economy and society in ways that we cannot control. Scientists predict that our ongoing greenhouse gas emissions will lead to catastrophic coastal flooding; severe droughts in some regions but more frequent torrential rains in others; and an increase in the number of strong hurricanes and other major storms. If we continue on this path, we will reach a point in the near future where the amount of resources required to recover and rebuild from these events will constrain our ability to invest and grow as a global society.

According to the Intergovernmental Panel on Climate Change (IPCC), global greenhouse gas emissions must be reduced 50 to 80 percent by 2050 to avoid the most dramatic consequences of global climate change. Yet, scientific models show that CO2 levels are climbing and will continue to rise due to global economic growth and the associated use of fossil fuels. This prevailing relationship between economic development and increased fossil fuel consumption has created difficult choices across our global society. In the developed world, leaders must confront the risks and costs of changing an existing energy infrastructure that has produced extraordinary prosperity for their citizens. In the developing world, leaders must weigh the need to deploy massive amounts of new fossil fuel energy necessary to grow their economies against the massive increase in CO2 emissions that will result. It's no wonder policymakers and business leaders have been slow to act.

To resolve these conflicts and reverse the rise of atmospheric CO2, we must break the vicious circle between the growth of economies and the ongoing growth of atmospheric CO2. In short, we must turn CO2 emissions from a liability to an economic opportunity on a global scale.

The CO2 Science Initiative believes we can achieve this goal by using scientific innovation to discover new uses for CO2 that generate significant economic value, and by shepherding those innovations from ideation to global deployment. In doing so, we can align market forces with CO2 emissions reduction efforts in a way that no other approach does, while creating enormous opportunities for innovators, entrepreneurs and investors.

ACTION IS REQUIRED ON A BROAD FRONT



ALL OF THESE ARE CRITICAL TO BE ACCOMPLISHED AT SCALE AND SPEED.

ADAPTATION

This requires adjustments in human systems in response to actual or expected changes in the environment. We are already in the process of adapting to the early signs of these impending changes, but these changes are small compared to the future adaptation that will be required.

DECARBONIZATION-ALTERNATIVE CLEAN ENERGY DEVELOPMENT

We need to move swiftly to develop and deploy clean energy alternatives. However, it is a slow process that will take many decades to accomplish at global scale.

CARBON CAPTURE AND USE

CO2-emissions are accelerating, and they are not waiting for human systems to catch up. Therefore, we must find ways to turn CO2 from a global liability into an economic opportunity.

Existing public and private efforts are primarily focused on these first two items. The Global CO2 Science Initiative is focused on the third: carbon capture and use.

A Bold and Targeted Approach

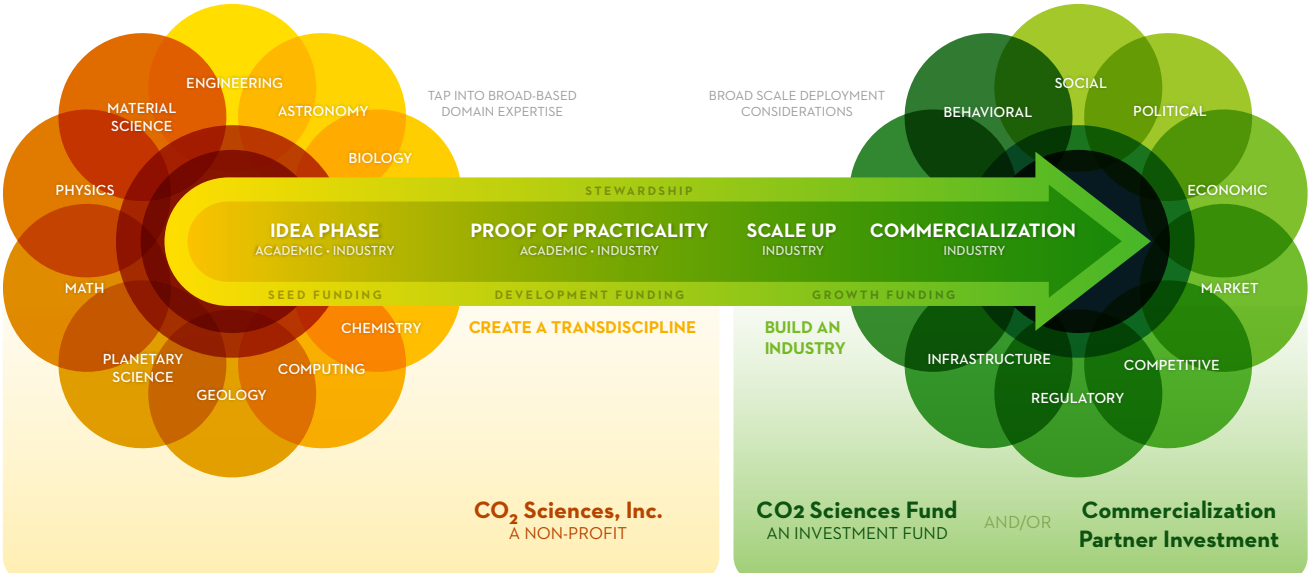
The Global CO_2 Science Initiative aligns market forces with the need for immediate CO_2 emissions reduction via a global effort to discover, develop, scale and deploy commercially viable technologies that capture CO_2 emissions at their sources and/or harvest CO_2 from the atmosphere and use CO_2 to create products and services that have a market value.

Key Attributes of The Global CO_2 Science Initiative Solutions

1) Meaningful scale in a climatologically significant way,
2) Commercially viable, not requiring government subsidy or regulation,
3) Can be achieved quickly.

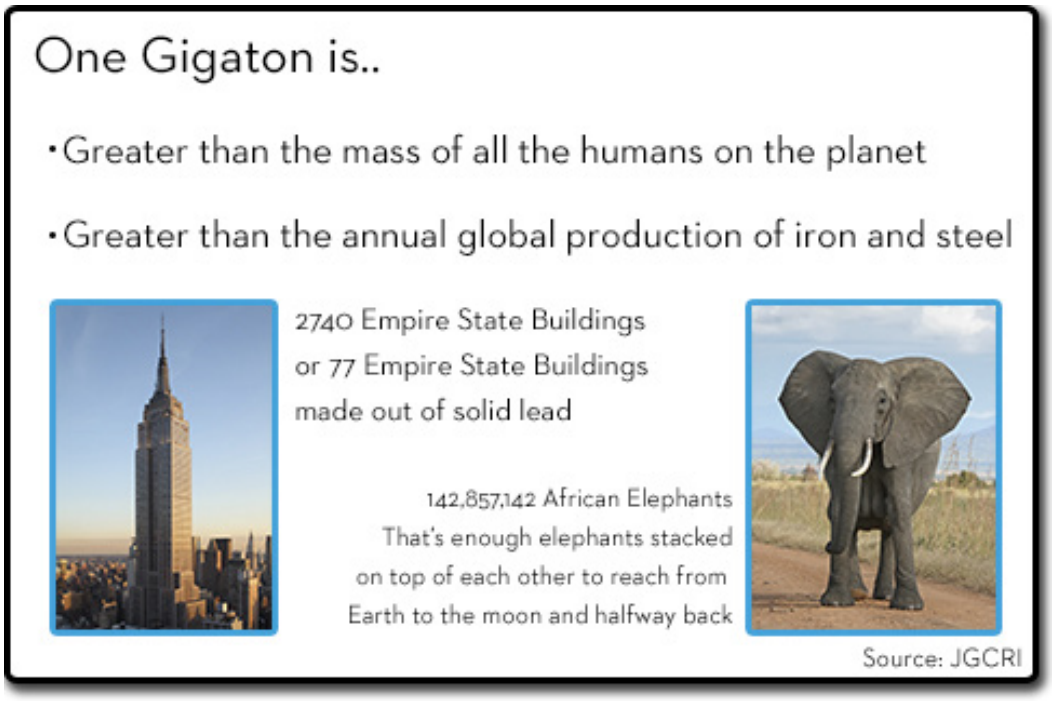
THE SOLUTION

Building a New Industry: Carbon Capture and Use (CCU)



Why Scale and Speed Matter

To reduce CO2 emissions significantly and mitigate their effects, we must attack the problem with the same scale and speed at which we are creating it. We are now emitting more than 35 gigatons of CO2 into the atmosphere every year – roughly equivalent to 35 times the annual global output of iron and steel. Atmospheric CO2 stands at an unprecedented concentration of more than 400 parts per million. At this scale, increased conservation by individuals alone is not enough. Nor is decarbonization alone. Even if researchers discovered a new zero-emissions energy source today, it would still take decades before we would see a meaningful reduction in CO2 emissions – due to the nature and extent of our current energy infrastructure.



A New Paradigm for Innovation

Success in turning CO_2 emissions from a liability to an opportunity will require:

a) Innovation on a massive and accelerated scale.
b) Unprecedented collaboration across scientific disciplines.
c) Building a marketplace for CO_2 and the technologies that will capture, harvest and use it.

For these reasons, the Global CO_2 Initiative employs a new approach for incentivizing, identifying and nurturing innovation from ideation to mass deployment, consisting of:

Global Ideation. We'll engage worldwide academic, corporate and private research networks to help seed, identify and grow the most innovative ideas and proposals on the globe for CCU.

Knowledge building and sharing. We'll aggregate these proposals and all available research into a global CO_2 data management and collaboration system.

Expert Vetting and Selection. Employing the best minds from industry and academic and research institutions, we will select the most promising ideas for funding.

AI-driven synthesis. We'll augment our human review with cognitive computing and data analysis to identify opportunities for cross-pollination amongst proposals and existing and emerging CO_2 research.

Incubation. Through grants and mentoring, we'll shepherd the most promising ideas to the point where they show technical viability and a clear line of sight to the market.

Proof of Practicality. Through both technical and market analysis, we'll ensure there is a clear business case with minimal technical risk to an emerging business.

Scale-up. Here, we will develop the critical elements to ensure broad scale deployment, taking into consideration behavioral, social, political, economic and market forces.

Broad Scale Deployment. Transfer of responsibility for commercialization to either a newly formed entity or, more probably, a commercialization partner.

The end goal of this approach is to accelerate the transformation of ideas into large-scale, successful businesses that deliver immediate impacts to the environment and the world.

CO_2 Sciences, Inc.	Nonprofit organization that will manage the entire Global CO_2 Sciences Initiative
Vision	CO_2 Use (CCU) for Profit At Scale With Speed
Focus/Parameters	• Active globally • Seed, identify and grow the most innovative CCU ideas • Move proposals from idea to broad scale adoption, quickly
Roles	• Create a well-defined process to shepherd ideas from theory to prototypes to scalable commercialization, including grant and commercialization funding at each of these stages • Find, recruit and collaborate with the best scientists, business minds and institutions throughout the world • Establish a robust process to both discover and attract viable ideas • Provide scientific oversight and ensure a rigorous vetting and stewardship process • Enable the Initiative by creating and administering the CO_2 Sciences Global Data and Collaboration Platform
Participants	Universities and research institutions; national laboratories; private foundations and philanthropists; worldwide industry including oil, coal, heavy industry, utilities, technology companies, insurers and financial service institutions; like-minded organizations; students and innovators of all ages.

The CO_2 Science Fund	For-profit investment fund that will provide the capital to build new companies and commercialize innovations fostered by CO_2 Sciences, Inc.
Vision	Bridge the funding gap between prototype and commercialization
Focus/Parameters	Invests in other globally promising technologies and companies beyond CO_2 Sciences
Roles	• Move innovations from prototype to pilot to commercial scale • Build new, high-growth companies from the most promising innovations • Create connections and partnerships between innovators and industry
Participants	Open only to members of CO_2 Sciences, Inc. Oil, coal, and other energy sector leaders; financial services and insurance companies, high-tech companies.

Private Sector Leadership Is Imperative

The private sector has waited for the government to set the rules. Yet, policymakers remain divided over how much regulation is required and how soon. Businesses from insurance firms to energy companies recognize the liability of climate change, but they tend to view the cost of CO2 as an externality. It's a cost few choose to bear unless forced by regulation, which does not seem imminent. However, if there were enough value in CO2 to make it revenue-positive, we believe businesses would adjust their strategies to capitalize on CO2-related opportunities. We believe that we can discover ways to create such value through scientific innovation and by shepherding that innovation from ideation to the mass market. It's a task that only the private sector can fund and achieve in time to mitigate the most significant effects of climate change.

Join Our Effort

Participation in The Global CO2 Science Initiative begins with joining or donating to CO2 Sciences, Inc., the nonprofit arm of the initiative that will manage our discovery, selection and proposal-to-prototype phases. We aim to raise $150 million a year over the next 10 years to fund these efforts.

By joining the Global CO2 Science Initiative, you or your organization will play a leading role in developing truly innovative technologies, funding and building high-growth companies, and directly addressing the most significant economic, social and environmental issue of our time. Please join us in our effort to transform our economy, our environment and our society for the good of future generations to come.