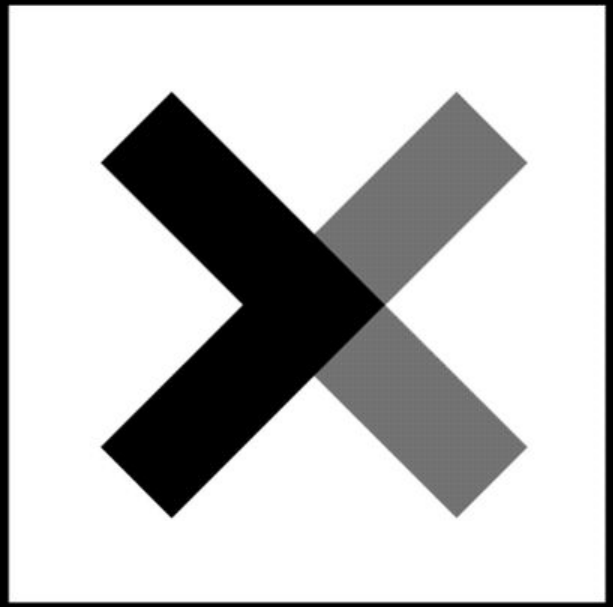


A MORE HOPEFUL VISION

WHAT IS XPRIZE

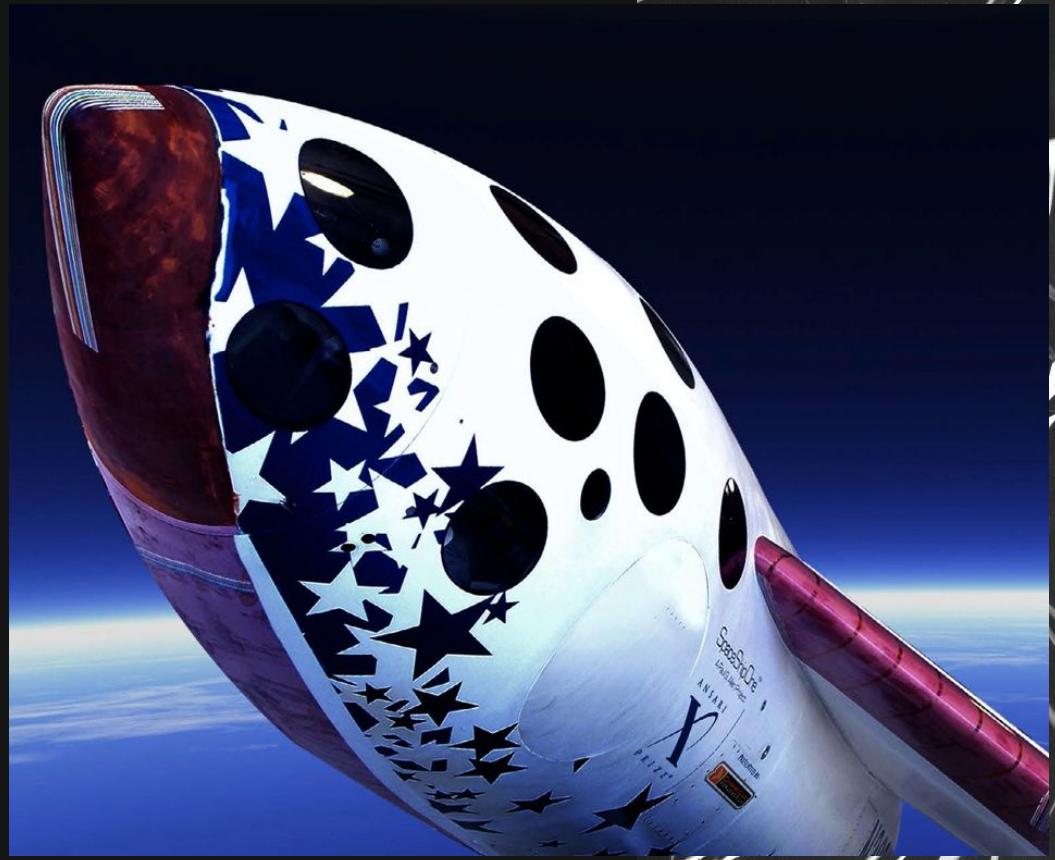
The mission of XPRIZE is to inspire and empower humanity to achieve breakthroughs that accelerate a hopeful future for all.


AVATAR
zero G

OUR BEGINNING

ANSARI XPRIZE

The $10 million Ansari XPRIZE was designed to lower the risk and cost of going to space by incentivizing the creation of a reliable, reusable, privately financed, manned spaceship that finally made private space travel commercially viable.



OUR WORK

OUR REACH AND IMPACT

$290M+
Cumulative Prize Purses

25
Prizes Launched

17
Prizes Awarded

$104M+
Awarded Prizes

$2B+
Invested in and by Competing Teams

$200M
Prizes Currently In Development

15
Prizes in Development

OUR WORK

WORKING ACROSS DOMAINS

1

EXPLORATION

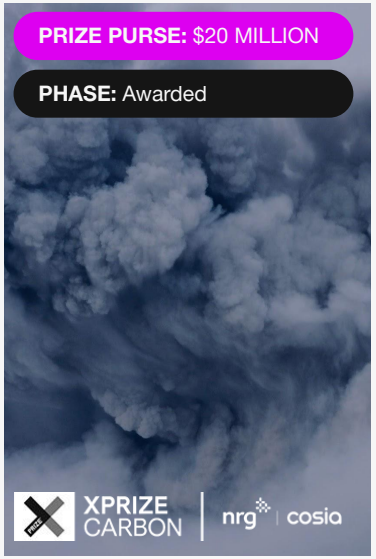
2

ENVIRONMENT

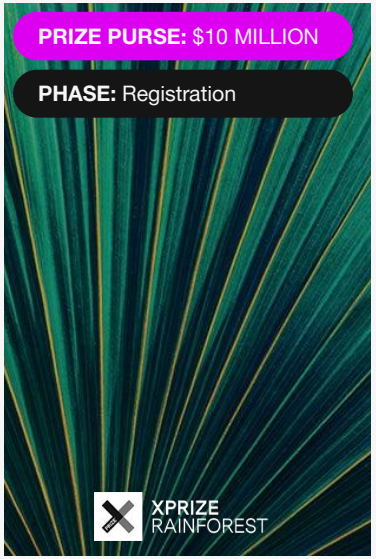
3

HUMAN EQUITY

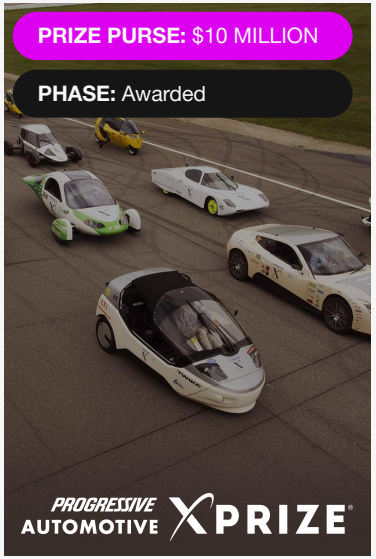
BUILDING ON A HISTORY OF IMPACT



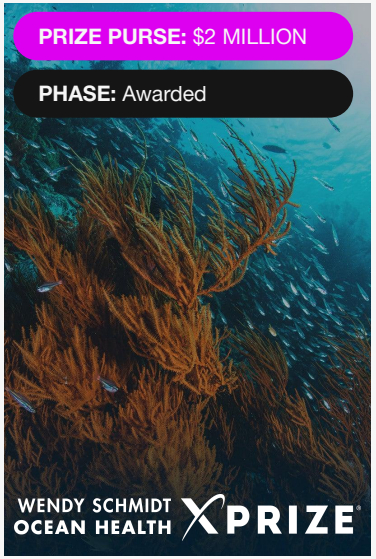
Five-year competition to develop breakthrough technologies to convert CO_2 emissions into usable products.



A five-year competition to enhance our understanding of the rainforest ecosystem.



Ambitious teams from around the world designed and built production-capable, super fuel-efficient and clean vehicles.



Challenged teams to create pH sensor technology that could affordably, accurately and efficiently measure ocean chemistry from its shallowest waters to its deepest depths.

XPRIZE

XPRIZE
CARBON
REMOVAL

MUSK FOUNDATION

PRIZE ROUNDS AND PURSES

$100 MILLION TO CATALYZE A MARKET

Rather than $100M awarded to a single winner, XPRIZE has designed a phased series of awards that collectively will seed a carbon removal market of solutions relevant to a range of industries and geographies.

NOV 2021

$5M STUDENT AWARDS

-Student Teams up to $250k
-MRV and Reporting Tools up to $100k

APRIL 2022

$15M MILESTONE AWARDS

$1M Milestone Awards
to 15 Teams

APRIL 2025

$80M GRAND PRIZES

$50M Grand Prize Winner
$30M Up to 3 runners up

MUSK FOUNDATION | XPRIZE CARBON REMOVAL

FOR THE PUBLIC

BROAD IMPACT GOAL

XPRIZE Carbon Removal will challenge innovators to demonstrate the viability of durable, low-cost, scalable, and sustainable carbon removal solutions.

Humanity needs a portfolio of carbon removal solutions that can reach a combined installed capacity of 2.5 gigatonnes of CO2 removal *per year* by 2030 in order to be on track to meet the IPCC goal of 10 gigatonnes *per year* by 2050.

GOALS

COMPETITION OBJECTIVES

1. Increase the global supply of cost-effective, durable carbon removal solutions

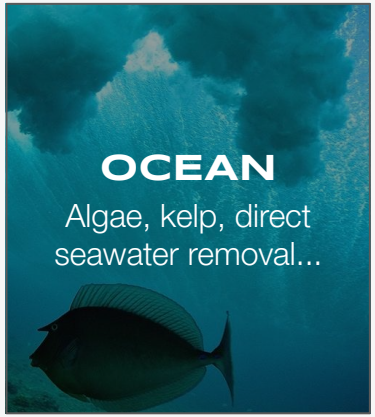
2. Prove the scientific / technical viability of a diversity of high-quality carbon removal solutions that can be deployed and maintained sustainably, including both existing and new solutions

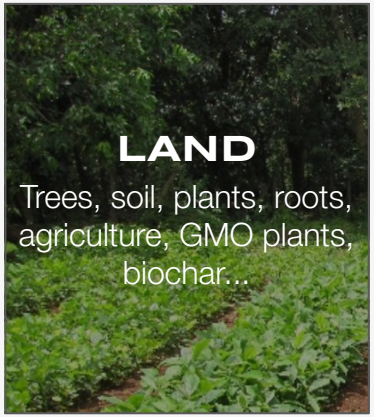
3. Accelerate the scaling and equitable deployment of proven carbon removal solutions

4. Inspire the next generation of talent and innovators in carbon removal

SOLUTIONS IN SCOPE

Any carbon negative solution that removes CO2 from the air or oceans, and sequesters it in a durable way.





Out of scope:

- Cannot be demonstrated or measured
- Cannot remove more CO2 than it emits
- Cannot create durable removal and sequestration of CO2

FOR TEAMS

HOW TO COMPETE

Build and run a working demonstration
1,000 t/y

Calculate fully considered cost
$/tonne at 1 Mt/y

Make a case
sustainable scalability to 1 Gt/y

FOR TEAMS

EVALUATION

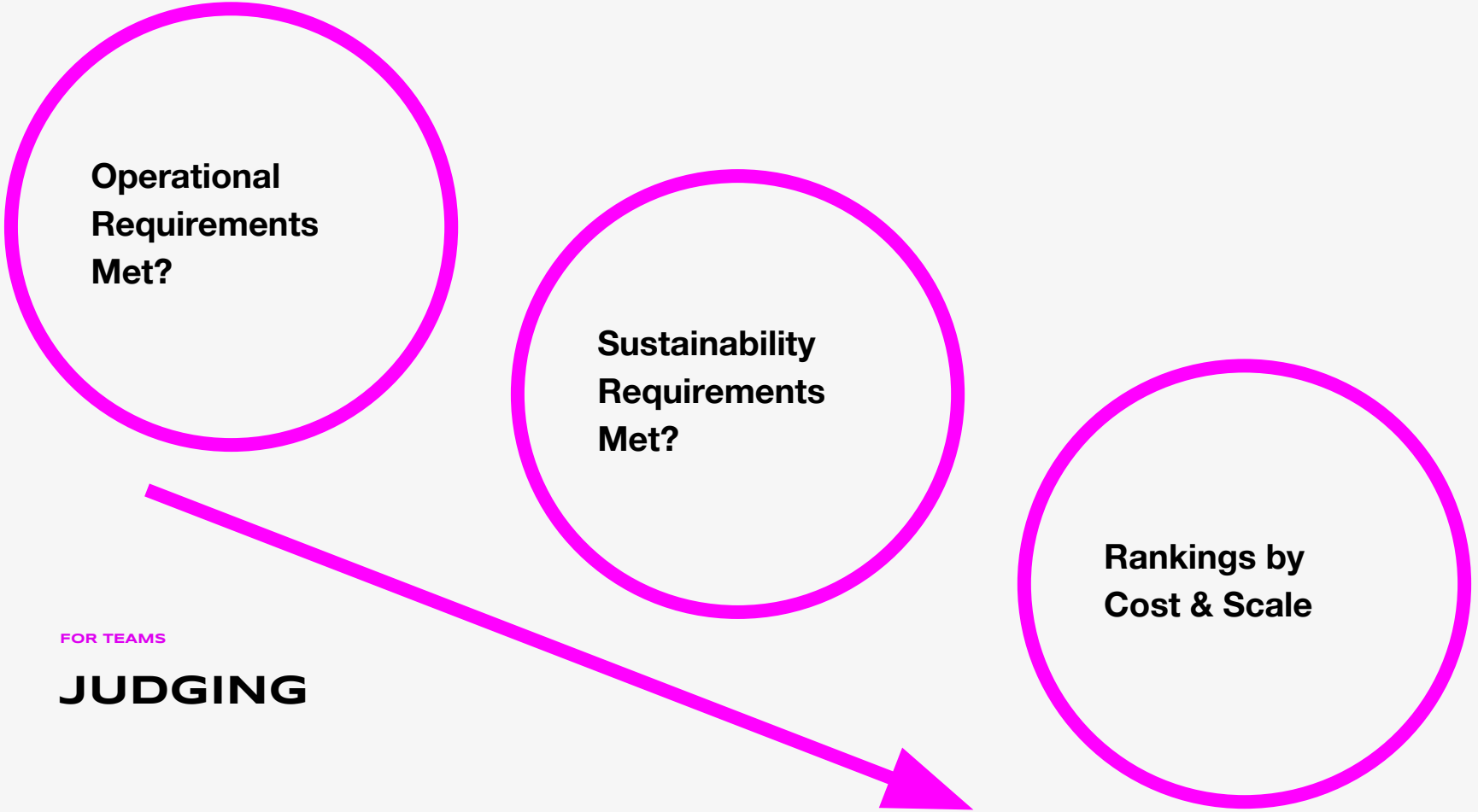
Operational Performance
1,000 t/y
Sustained Operations
3rd Party Verified
Adequate Precision

Fully Considered Cost
Capex & Opex
Longitudinal Management
Risk & Externalities
Revenue & Value

Sustainably Scaleable
Demonstrated Scale
Durable Sequestration
Net Negative
Scale & Rate Limiting Factors
Environmental Justice

FOR TEAMS

JUDGING



SUBMISSION & DEMO REQUIREMENTS

STUDENT AWARDS

- Proposal only
- No demo required

MILESTONE SUBMISSION

- Demo “key component” **at any scale**
- Technical Proposal
- Cost model
- Sustainability Rationale

SITE VISIT APPLICATION

- Demo **at full scale** >1000t/y
- Sustained Operations
- Open to all, not just milestone winners

GRAND PRIZE SUBMISSION

- Cost Model
- Sustainability Rationale (inc. LCA)
- Verification Report

STUDENTS FUNDED

15X $1M MILESTONES

FINALISTS SELECTED

$50M GRAND PRIZE
$30M RUNNERS UP

IMPACT PROGRAMS

Alongside the core competition, XPRIZE will work with partners to create parallel impact initiatives to support the scaling of carbon removal solutions.

MARKET INTELLIGENCE

Created in 2018, the Circular Carbon Network analyzes the growth of the carbontech and carbon removal markets and engages investors. The CCN Innovator Index and Deal Hub amplifies fundraising efforts for and the CCN Investor Index, Corporate Index, and Catalyst Index provide resources for carbon startups working in the space.

LAUNCHPAD ACCELERATOR

AirMiners LaunchPad is a new accelerator in partnership with Creative Destruction Lab, recruiting their first cohort in April 2021, to support early stage carbon removal ideas. The program helps founders establish their team, develop business strategy, roadmap their tech, and connect to the broader carbon removal ecosystem.

$5M FOR STUDENTS

SPURRING IDEAS AND TALENT

$5M STUDENT AWARDS

$3M for Student Teams to compete in XPRIZE Carbon Removal

- up to $250k per award

$2M for Student Teams to develop Measurement, Reporting & Verification Technologies

- up to $100k per award

SPURRING IDEAS AND TALENT

STUDENT AWARDS SCOPE

Carbon Removal Projects

These grants will help finance participation in the XPRIZE Carbon Removal competition. Applicants must register as a competing team and are subject to the rules & regulations of the competition. An existing demonstration is not a requirement of the student award proposals.

Analytical and Measurement Tools

These grants will finance development of carbon measurement innovations and novel tool kits which directly benefit the carbon removal space. In particular, we are interested in:

- Soil GHG monitoring & verification technology
- Ocean GHG monitoring & verification technology
- Life Cycle Analysis Tools
- Techno-Economic Analysis Tools, and specifically methods and tools for estimating cost at scale of early-stage carbon removal solutions.

We expect that proposals for these awards will involve prior work on carbon removal measurement technologies and that these awards will fund further development of these tools.

SPURRING IDEAS AND TALENT

STUDENT AWARDS ELIGIBILITY

1. Student teams may be formed out of existing research groups, student clubs, or independently incorporated.
2. Student Teams must be student led & composed of >50% students.
3. Students are 35 or younger and enrolled at an educational institution for the 2021-2022 academic year or recently completed the 2020-2021 academic year.
4. Identify an academic advisor or business leader who will act as a formal mentor to the team.
5. Provide a letter of support from an academic institution.

SPURRING IDEAS AND TALENT

STUDENT AWARD DECISIONS

Evaluation: Expert, third-party judges from business, academia, and government will review proposals in October 2021. Judging criteria will include: (weightings will be determined by the judges once they have been selected)

- innovation
- measurement approach
- the impact of improved ability to measure carbon removal and sequestration for a given pathway
- team resources and capabilities, and
- project plan feasibility when evaluating proposals.

Conditions of Award: Award payments may be linked to milestones, as defined by the selection committee. Teams must provide progress reports at each milestone. Teams must also provide evidence of IP rights in the form of an MOU countersigned by their university's technology transfer office or other suitable documentation.

Timeline: Proposals due Oct 1, Awards Nov (at COP26)

COMPETITION MILESTONES

Phase One: Proof of Concept (Year 1, 2021-2022)	
• Team Registration Opens	April 22, 2021
• Prize Guideline Public Comment Period	April 22 - May 13, 2021
• Final Guideline Publication	June 21, 2021
• Student Award Submission Deadline	October 1, 2021
• Student Award Judging	October 2021
• **$5M Student Awards Announced**	**November 2021**
• Milestone Registration Deadline	December 1, 2021
• Milestone Submission Deadline	February 1, 2022
• Milestone Judging	February - March 2022
• **$15M Milestone Awards Announced**	**April 22, 2022**
Phase Two: Full Demonstration (Years 2-4, 2022-2025)	
• Ongoing Team Solution Development Period	April 2022 - February 2024
• Grand Prize Registration Deadline	December 1, 2023
• Finalist Site Visit Application Deadline	February 1, 2024
• Finalist Judging and Selection	February - March 2024
• **Announce Finalists**	**April 22, 2024**
• Finalist Measurement & Verification Site Visits	May 2024 - January 2025
• Final Team Submission Deadline	February 1, 2025
• Final Judging	February - March 2025
• **$80M Grand Prize Awards Announced**	**April 22, 2025**

REGISTER AT:

XPRIZE

xprize.org/carbonremoval