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# NYS Carbontech Ecosystem

# Agenda

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- ✓ **NYS Carbontech Ecosystem Overview**
- Carbon to Value (C2V)
- Activate NY
- Carbontech Development Initiative (CDI)



# Carbontech in NYS

*Ecosystem Actors*



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## NYS Supported Carbontech Initiatives

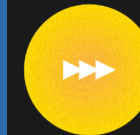


CARBON TO  
VALUE INITIATIVE

Carbon to Value  
(C2V)



Activate  
NY



Carbontech  
Development  
Initiative

Carbontech Development  
Initiative  
(CDI)

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- Why Carbontech?

*Due to the build-up over time of excessive, long-lived carbon emissions, commercializing Carbontech—technologies that capture and convert carbon dioxide (CO<sub>2</sub>) into valuable end products or services— is now necessary to meet global climate goals.*



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- \$19.5 million Carbontech Development Initiative - New York State, April 2021
- New York State supports three Carbontech market interventions:
  - Carbon to Value (C2V)
  - Activate NY
  - Carbontech Development Initiative (CDI)
- Supporting NYS climate, clean energy, and just transition goals

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## *Carbon to Value (C2V)*



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- **The Carbon to Value (C2V) Initiative's aim:**
  - Bringing innovative solutions to scale as rapidly as possible through the creation of a robust, powerful, and collaborative new ecosystem
- **What is the C2V Initiative?**
  - Multi-year collaboration to accelerate the carbontech industry that leverages our proven process for launching climate solutions into the marketplace
  - Multi-year, multi-stakeholder effort to rapidly commercialize innovations by startups working to address the emerging C2V market.
- **How it works?**
  - Cohorts: Annually, C2V supports a new cohort of innovative carbontech companies
  - Value Chain Engagement: Collaboration among the CLC members—major corporations, government actors, and NGOs—and the startups selected for each cohort to build the ecosystem that they need to thrive.;
  - An Accelerator for the Industry: Industry-building, deployment and partnership-focused activities that help carbontech startups scale.

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*Carbon to Value (C2V)*



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C2V's latest cohort:

- Eight startups selected for Year 2
- Work closely with “Cohort Champion” Fluor
- Gain access to the Carbontech Leadership Council (CLC)

A satellite view of the Earth, showing the Americas and parts of Europe and Africa, with a blue sky and white clouds.

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*Activate NY*



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- \$9.1 million awarded to the nonprofit Activate to establish a fellowship program for New York-based entrepreneurs.
- Activate NY will provide entrepreneurs with resources and training to build the global network needed to scale carbontech innovations.
- Activate NY Fellows benefit from host laboratory partners at Columbia University.
- Inaugural Activate entrepreneurial scientists will spend two years translating their groundbreaking research into products and businesses to contribute to New York State carbon neutrality by 2050 across eight target industries.



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*Activate NY*



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- **Activate NY Eligibility:**

- Bachelor's degree and four+ years post-baccalaureate scientific research, engineering, or technology development experience.
- Leader of a technical project or company relevant to target industries and based in the physical or biological sciences, or related engineering disciplines.
- Leading commercial development of a hardware-based technology innovation for the first time.
- Less than \$2,000,000 in debt or equity funding raised from non-governmental sources.
- Still in development and not yet ready for full-scale product sales.
- Able to work in the U.S. for the duration of the fellowship, and have access to a qualified host laboratory.

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*Activate NY*



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- **What Activate NY looks for:**

- Entrepreneurial Potential: Ability to mobilize physical, financial, and intellectual resources
- Leadership: Professional strengths and opportunities for development
- Technical Excellence: Deeply knowledge in the field of their proposed project
- Participation: Will support an inclusive, equitable, and diverse environment.
- Feasibility: project rooted in sound scientific principles and feasible within the confines of the two-year fellowship
- Impact Potential and Sponsor Alignment: Proposed project has potential to impact Activate Imperatives or target industries
- Highest and Best Use of Fellowship: Participation will improve probability of project success



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*Carbontech Development Initiative (CDI)*



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- **Columbia University awarded \$10 million in seed funding under New York State's Carbontech Development Initiative Program Opportunity Notice**
  - Allow researchers and entrepreneurs working on carbon capture, utilization, and storage-related technologies to expand on their work and establish New York as a center for carbontech innovation.
- **Columbia is a global leader in carbontech research, having developed expertise in CO<sub>2</sub> capture, CO<sub>2</sub> conversion to products, and related fields, including low-carbon hydrogen, systems engineering, and electrochemical energy storage.**
- **Several promising startups have sprung out of Columbia:**
  - GreenOre CleanTech, uses carbon dioxide as a reagent to convert industrial waste into valuable minerals.
  - Heirloom, captures carbon dioxide from the air and injects it underground for long-term storage.
  - Others:
    - AdvanceH2O and Trident Desalination
    - sHYp and Werewool



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*Carbontech Development Initiative (CDI)*



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- Grantmaking and accelerator program to develop, commercialize, and scale tools and technologies focused on lowering emissions by turning carbon into useful products
- Focus on three key areas:
  - Capturing carbon from the air, oceans, and industrial plants to lower ambient levels of carbon dioxide and combat ocean acidification;
  - Converting carbon into minerals and other marketable materials; and
  - Repurposing those materials in construction and other industries.
- Focus on the commercialization process
  - Emphasis on analyzing markets and policies so that carbontech entrepreneurs across New York can position their companies for success



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**Q&A**