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SUSTAINABLE SOLUTIONS FOR GLOBAL WARMING: CARBON CAPTURE AND UTILIZATION (CCU)

TRANSFORMING EMISSIONS INTO SUSTAINABLE MATERIALS

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THE CHALLENGE

- Excessive CO_2 emissions driving global warming.
- Construction industry's dual challenge:
  - Reducing emissions.
  - Maintaining profitability.
- Need for sustainable materials to meet environmental regulations and market demands.
- Urgent demand for innovation in reducing the carbon footprint.
- Rising consumer and government focus on sustainability.
- Construction sector contributes nearly 40% of global CO_2 emissions.
- Existing materials and methods are not sufficient to meet net-zero goals.
- Growing pressure from stakeholders for eco-friendly solutions.

INSPIRATION

- Inspired by the global push for net-zero emissions.
- Leverages **Carbon Capture and Utilization (CCU)** to mitigate the environmental impact of construction.
- Draws from successful models in renewable energy and sustainable innovation.
- Advances in technology make CCU more feasible than ever.
- Inspired by global leaders in climate innovation and carbon management.

THE CCU BUSINESS MODEL

1

Capture CO_2: From industrial sites or atmosphere.

2

Transform CO_2: Into carbon-negative concrete and CO_2-based bioplastics.

3

Market Opportunity: Sustainable materials for construction and eco-friendly plastics.

4

Foster collaboration with industries to integrate CCU solutions.

5

Develop training programs for workforce adaptation to green technologies.

6

Enable scalable and cost-efficient solutions through automation and innovation.

CARBON CAPTURE PROCESS

Capture CO_2: From industrial sites or atmosphere.

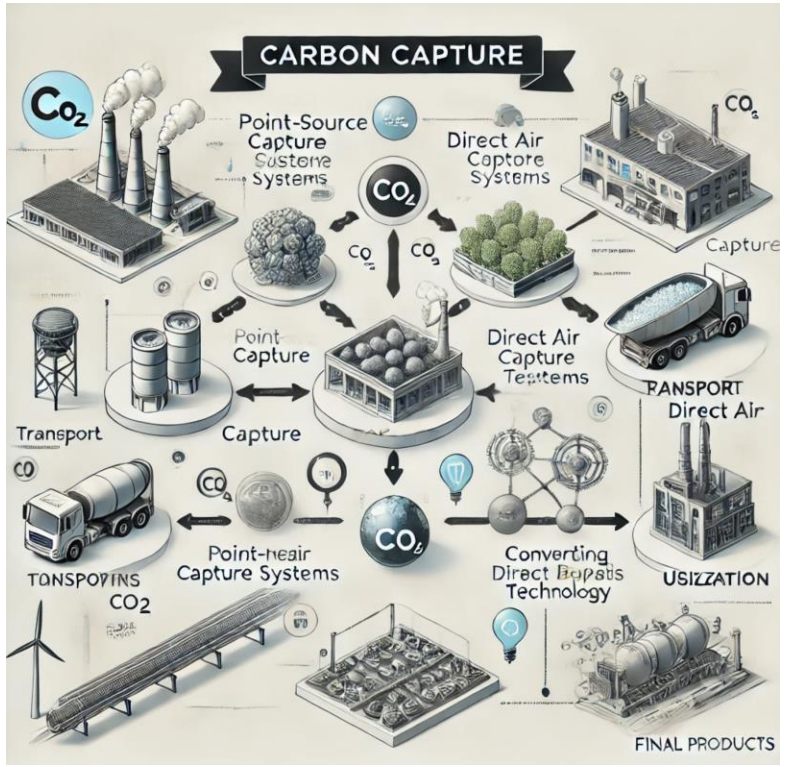
Transform CO_2: Into carbon-negative concrete and CO_2-based bioplastics.

Market Opportunity: Sustainable materials for construction and eco-friendly plastics.

Foster collaboration with industries to integrate CCU solutions.

Develop training programs for workforce adaptation to green technologies.

Enable scalable and cost-efficient solutions through automation and innovation.



TRANSFORMING CO_2 INTO PRODUCTS

- **Concrete:**
  - Chemically binds CO_2 during production.
  - Stronger, durable, eco-friendly.
- **Bioplastics:**
  - Sustainable plastics for packaging and consumer goods.
- **Fuels:** Potential for synthetic fuels from captured CO_2.
- **Construction Materials:** Explore other CO_2-based innovations for infrastructure.
- **Visual:** Images of carbon-negative concrete, bioplastics, and CO_2-based fuels.

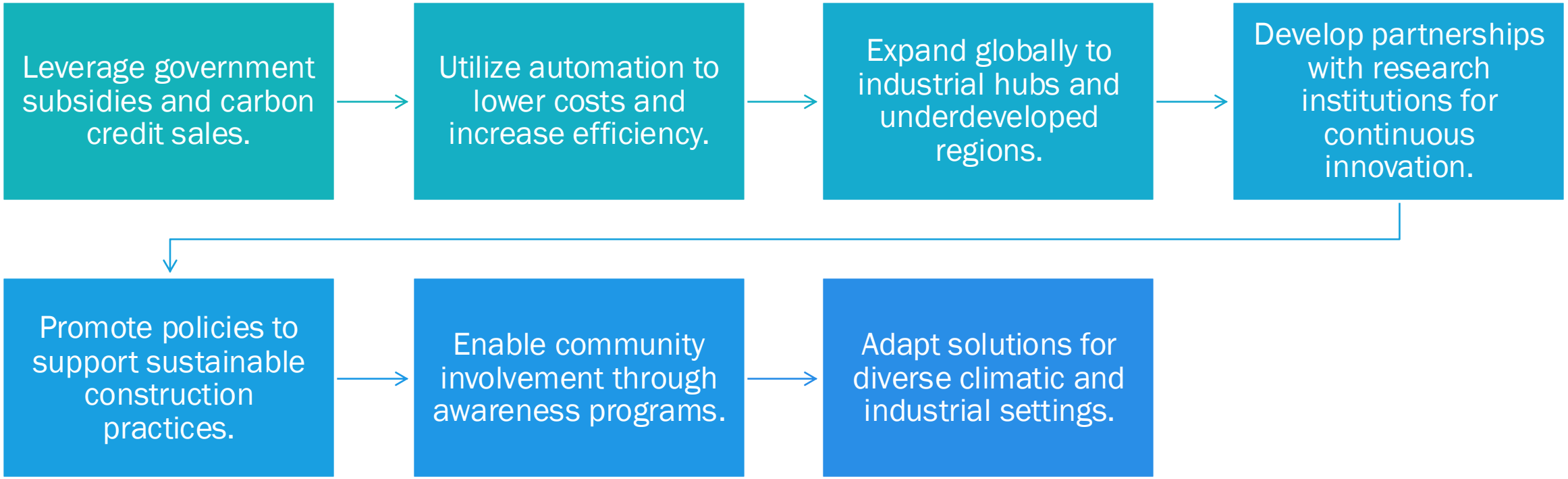
WHY CARBON-NEGATIVE MATERIALS?

- **Concrete:** Stronger, longer lifespan, sustainable alternative.
- **Bioplastics:** Reduces reliance on fossil fuels, biodegradable.
- **Fuels:** Reduces dependence on traditional fossil fuels, supports energy transition.
- Meets growing market demand for eco-friendly materials.
- Aligns with global sustainability goals and corporate ESG (Environmental, Social, and Governance) priorities.
- Offers long-term cost savings through material durability.
- Encourages adoption of circular economy principles.

ENVIRONMENTAL IMPACT

- **Permanent CO_2 Removal:**
  - Converts CO_2 into solid products like concrete.
  - Reduces greenhouse gas levels in the atmosphere.
- **Reduction of High-Carbon Industry Emissions:**
  - Cement production: Accounts for ~8% of global CO_2 emissions.
  - Offers alternatives to emission-heavy materials.
- **Energy Efficiency:** Supports cleaner production processes and energy savings.
- **Enhances Carbon Sequestration:** Encourages integration with reforestation and soil carbon projects.

- SCALING THE SOLUTION



ECONOMIC POTENTIAL

- Rapid growth in sustainable construction materials and eco-friendly plastics markets.
- Target high-demand sectors: Packaging, construction, consumer goods.
- Potential for partnerships with governments and private sectors.
- Expand into international markets to address global demand.
- Tap into carbon credit trading markets for additional revenue streams.
- Align with future regulations mandating carbon reduction in industries.
- Leverage branding opportunities as a green innovation leader.

WHY INVEST IN CCU?

- Solve environmental and industrial challenges.
- Contribute to net-zero emission goals.
- Tap into lucrative markets for sustainable innovations.
- Support global sustainability and climate action goals.
- Drive a profitable and socially responsible business model.
- Join a movement toward a sustainable future with tangible impacts.


THANK YOU