

CARIBELATE

An Organizational Template for Incubation and Diffusion of GHG Emission Reduction Technologies

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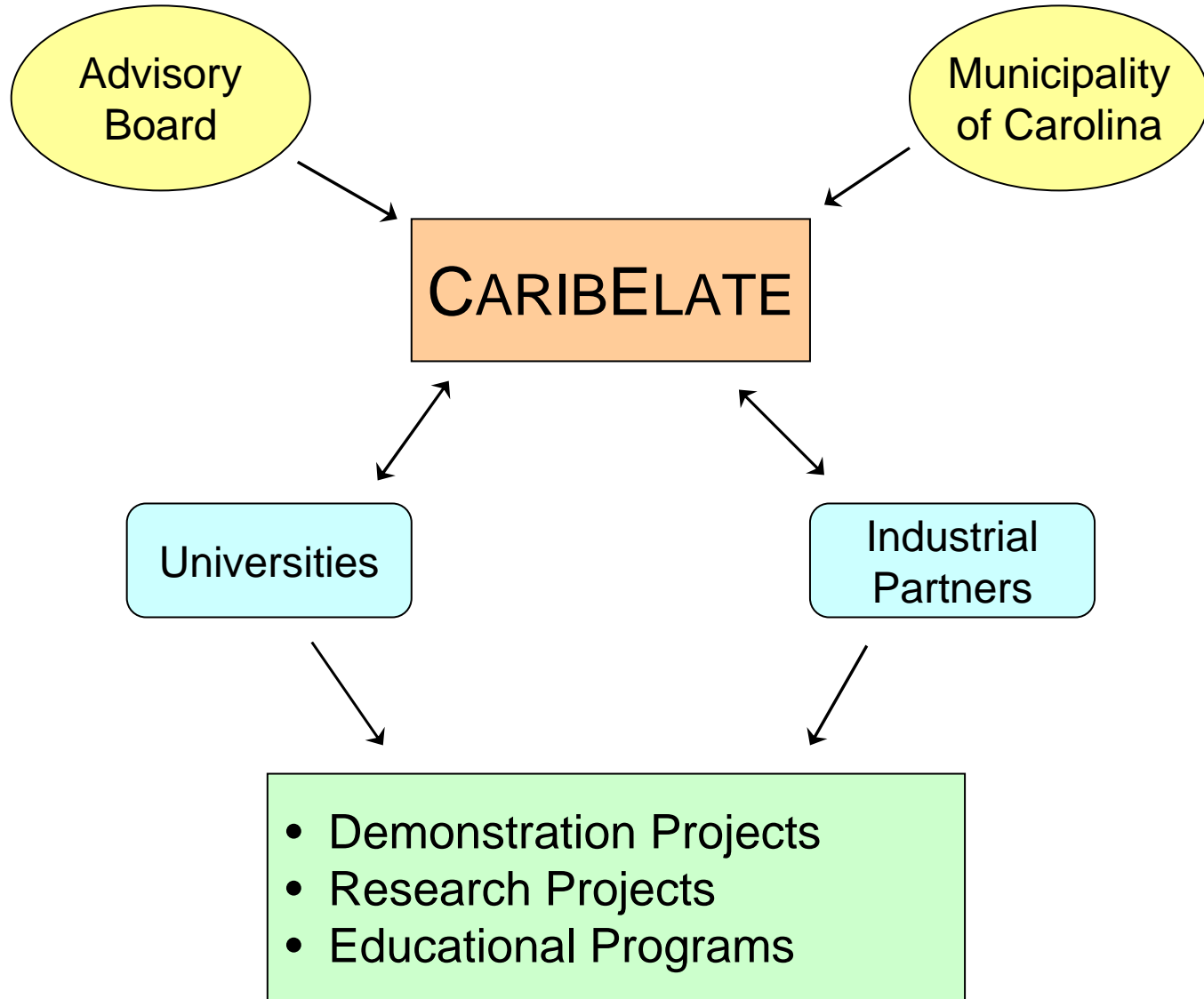
Caribbean Environmental Laboratory for Advanced Technological Entrepreneurship (CARIBELATE)



Core Functions

- Proof of the concept technology demonstrations - market transformation
- Collaboration - academic, private-industrial partners and government sectors
- Current ratio of activity - 70% business incubators, 30% systems planning (MARKAL) and facility development
- Facilities to address municipal problems in the developed and developing world

Organizational Structure



Origin and Governance

- Evolved from EPA grants to Rutgers University on landfill methane cleanup technologies
- Power system has been tested in a landfill environment
- Autonomous Municipality of Carolina, Puerto Rico, USA to build own and operate CARIBELATE on behalf of stakeholders

Industrial Partners

- Puerto Rico Electric Power Company:
www.prepa.com
- Greenfuel Technology Corporation.
www.greenfuelonline.com
- Terracycle: www.terracycle.ca
- Acrion Technology Corporation:
www.acrion.com

Industrial Partners - Functions

- CARIBELATE provides subsidized presence for proof of technology demonstrations
- Industrial partners meet three tests: landfill site or methane, dependency, market transformation potential and
- Calculation of greenhouse gas credits from demonstrations

Analytical Systems

- The use of the MARKAL series of analytical systems models at CARIBELATE provides a dry laboratory tool for examining advanced technologies and practices to fully and sustainably utilize and reuse the landfill sites and capacity of Puerto Rico
- The Municipality of Carolina has established a technical training site for MARKAL at CARIBELATE and has conducted general introductions on the model and its materials flows applications

Integrated Municipal Scale MARKAL

- Direct involvement of MARKAL at Municipal scale brings output to the level of government responsible for implementation
- Four-part program for MARKAL: GHG credits, develop municipal scale environmental management system (EMS), use EMS with Industrial Ecology to impact supply chains
- Potential application to landfill networks and POTW networks

Community-Based Education and International Training

- The construction of the CARIBELATE facility offers diverse educational opportunities for both secondary and higher education
- CARIBELATE will translate its existing educational module into Spanish, with its applications modified for improvements as the experience grows in Puerto Rico
- The agreement of AIDIS - the Inter-American Sanitary and Environmental Engineering Association (www.aidis.org.br) to become its international training facilitator and outreach partner
- CARIBELATE as part of its core mission as a demonstration platform for sustainability, will extend its experiences into the wider Caribbean Basin and Southern Hemisphere

GLOBALATE as a concept

- Flexible organization and facility design for specific climatic and regional market conditions
- Standard design based on Puerto Rico prototype.
- Technical training and certification institute possible in 2007

Additional Information

www.CARIBELATE.us

www.blackwellpublishing.com
- Natural Resources Forum, February, 2005

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