

Local companies earn green-technology honors

Palo Alto, Menlo Park firms kick-start clean-tech movement

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Two local companies -- one from Palo Alto and one from Menlo Park -- have won top prizes in the California Clean Tech Open, the richest green-technology competition in the country.

The prizes, part of \$500,000 in cash and business services in five categories of clean technology including energy efficiency, renewable energy, smart power, transportation and water management, were announced Tuesday morning at San Francisco's City Hall in front of a room of investors, inventors and Bay Area clean-tech businesses. San Francisco Mayor Gavin Newsom was a speaker.

KiteShip, a Palo Alto-based company that builds large traction kites that attach to ships to reduce fuel consumption and carbon dioxide emissions, won top honors in the transportation category. Menlo Park's Crystal Clear Technologies won the water-management category for its high-absorption, high-capacity filter technology, capable of delivering clean water at a fraction of the cost of its competitors.

The two firms were among 155 companies in the competition, which was co-founded by local entrepreneurs Laurent Pacalin of Ladera and Michael Santullo of Palo Alto. The two men want to start a clean-revolution, with the Bay Area at the forefront of the new clean-technology wave. The Palo Alto-based law firm of Wilson, Sonsini, Goodrich & Rosati was a top sponsor.

Seventy-one percent of the contestants were California-based. Surprisingly, 89 percent were inventor/entrepreneurs from outside the university sector, Pacalin said.

The winners were selected from 44 finalists. Each winner received \$50,000 cash plus free office space for a year and free services from top legal, public relations, recruiting and accounting firms.

"Think of it as a start-up in a box," said Santullo, who himself founded the Four11 white pages directory.

The two men created the Open during a meeting of the MIT Club of Northern California.

Pacalin's environmental awakening began in 1978, when he helped clean a beach in northern France after the Amoco Cadiz oil tanker disaster. He holds a master's degree in energy systems and considers himself a market-oriented environmental entrepreneur, he said.

"We wanted to increase the speed of innovation and open the market, akin to what happened to the communications industry in the 1980s," Pacalin said.

Now companies are seeing "green" as a path to job creation and wealth, one hastened by concerns of global warming and government clean-tech initiatives, Pacalin said.

Santullo said the Bay Area is the perfect place for the clean-tech wave to take hold, given the area's venture-capital community, forward thinking and environmental ethic.

Corporate response to the contest exceeded expectations, with sponsorship from Wilson Sonsini, 13 venture capital firms as well as People Connect, Lexus, Pacific Gas & Electric, Plug & Play, AMD, the Agora Foundation, MIT Club of Northern California, among others. Prizes were sponsored by Lexus, Sempra Energy, PG&E, Southern California Edison, AMD and the Agora Foundation.

KiteShip CEO Jeremy Walker said outfitting a single ship with one kite for a year reduces sulfur emissions by the same amount as turning every car in California into a hybrid. The company plans to use the prize money for additional research and development.

Menlo Park's Crystal Clear Technologies was the only winning company founded by a woman. President and Founder Lisa Farmen said Crystal Clear's technology utilizes low-cost materials such as sand treated with a nano-coating to filter contaminated water and make it potable for as little as \$1 per year per person.

Clean technology was a lonely business when Farmen first began developing her product 25 years ago.

"I was talking to myself when I started out," she said.

Mayor Newsom, a supporter of clean technology, has signed green legislation to convert the city's vehicle fleet, fire and emergency vehicles to biodiesel, and is working on a pilot initiative to harness wave and tidal power from Ocean Beach.

He said it is time for major change in the direction of clean technology, and the old tyranny of "or" -- economic growth or environmental stewardship -- has now changed to "and" -- economic growth and environmental stewardship.

"This is what gets the juices flowing," Newsom said of government policy changes that create economic and technological incentive.

The other prize-winners are:

- Energy efficiency: **Adura Technologies** of Berkeley, for its wireless lighting management system that saves businesses up to 50 percent in energy costs.
- Renewable energy: **Green Volts** of Berkeley, for high-concentration photovoltaic technology, which lowers the cost of energy from solar photovoltaic cells by 50 percent.

- Smart power: **EDC Technologies, Inc.** of Sebastopol, for its hot water controller, which reduces natural gas consumption in commercial buildings and multi-family apartments.

Last week, the last round of judging for the eight clean-water finalists took place in a Wilson Sonsini conference room. Each team of finalists had 10 minutes to present its PowerPoint business plan to six judges, which included venture capitalists, industry experts and researchers.

The difference in styles became immediately apparent: Two East Coast candidates showed up in suits; while executives from San Jose-based Meridian Design, Inc. dressed casually, plopping a Trader Joe's paper bag containing their inventions onto the conference table.

Meridian's portable water purifier uses ultraviolet light to kill harmful microorganisms in water. The company wants to expand its market of small bottles for campers to disinfect larger water supplies in developing countries, where waterborne diseases are rampant. The units "kill everything in 1.5 minutes," said CEO Kurt Kuhlmann.

A-Z Comp, a Rocklin, Calif.-based company, has a filtration system for cleaning polluted bilge water from ships. Dr. Alisher Abdullayev said his product can remove hydrocarbons from water, sand and soil. He mixed crude oil into water, stirring the viscous cocktail with a paint stick, then poured the mixture into a funnel-like strainer containing a highly absorbent material.

Clear water dribbled into the cup. Abdullayev drank it, offering the cleaned liquid to the judges, but most squeamishly declined.

Judge Anushka Drescher, senior research scientist at WaterHealth International, was brought in as a technical expert. She can tell if a presenter is inserting tricks to make their technology seem better.

Judges' challenges to a product's technical or chemical processes could be withering, and finalists without answers faced a thumbs-down when they left the room.

"Mostly, the business people have decided if it's a bad market. The business part is so important," Drescher said.

Judging Chair Rebeca Hwang, current vice president for the Social E-Challenge Competition at Stanford, said judges had a long list of agreed-upon criteria for guidelines.

"Successful teams had great potential to have significant financial and environmental impact in the next five years. They were articulate and well aware of their strengths and weaknesses," she said. "We looked at the overall short-term and long-term potential of each of the teams, both financial and environmental. ... The essential question was: Which companies raised curiosity among our judges?"

But products that spurred excitement didn't necessarily make the cut.

One finalist "lacked specifics, or any specificity about any elements of his business plan"; another "didn't present enough to make it credible," the judges said.