

Waste-conversion startup Sanergy bowls over competition

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Members of sanitation start-up 'Sanergy' accepts the \$100,000 prize as winners of the MIT \$100K competition 100K associate director John Casey (far left), managing director Kourosh Kaghazian (far right), and venture capitalist Vinod Khosla (second from left) presented the team with the check. Image: AMPS

A team of students with a toilet and a dream won this year's grand prize, as well as the audience-choice award, in MIT's 21st annual \$100K Business Plan Competition.

Sanergy, the finalist in the emerging-markets track, beat out 280 teams with its plan for an innovative form of low-cost, energy-converting sanitation. Throughout the competition, Sloan School of Management MBA candidates David Auerbach and Ani Vallabhaneni refined their pitch, which they presented at the competition's finale on Wednesday



night.

Auerbach and Vallabhaneni opened with a question to the audience: "Who here has used a clean toilet today?" They then outlined the critical need for clean, affordable sanitation in African slums.

Sanergy's solution: a low-cost, portable toilet facility that separates waste to be collected and converted to biogas and organic fertilizer. Within five years, the team hopes to provide facilities to more than 500,000 Africans, generating 7.5 million kilowatt-hours of electricity and 11,000 tons of fertilizer.

Later in the evening, Sanergy's pitch garnered the most votes from the crowd, winning the team the audience-choice award and an additional \$5,000 dollars.

Sanergy took home a total of \$120,000, which it plans to put toward building and implementing up to 60 toilets throughout Kenya.

Seed money for top seeds

Sanergy joins a list of more than 150 companies launched with the help of MIT's \$100K Business Plan Competition. The contest, started in 1990, is the largest student-run business competition in the world. Of the 280 teams that entered this year, 27 semifinalists advanced; each worked for two months with an experienced entrepreneur to hone its business plan.

Six finalists were announced last week, representing winners in each of six tracks: energy, life sciences, mobile, products and services, web/IT, and emerging markets. During Wednesday's \$100K finale, finalists pitched their ideas to a packed house at Kresge Auditorium. Each finalist received a check for \$15,000.



Cool Chip Technologies, the winner of the \$200,000 Clean Energy Prize earlier this week, was automatically entered as a \$100K finalist in the energy track. The team of three MIT graduate students has developed a fan system for cooling processor chips, a potentially significant costsaver for busy data centers. Chip developer William Sanchez, a doctoral student in electrical engineering and computer science, says the fan, which is less than three inches wide, could also potentially work in personal-gaming systems such as Microsoft Xbox and Sony PlayStation.

Zinaura Pharmaceuticals won the top spot in the life-sciences category. The startup, helmed by Drew Cronin-Fine, a graduate student in MIT's Biomedical Enterprise Program, and Heather Kline, an MBA student at Harvard Business School, is built around the compound Huperzine A, a treatment for epilepsy and pain. The team hopes the drug, which targets novel biochemical pathways that can cause seizures, will successfully treat the 30 percent of epilepsy patients who do not respond to current medications.

In the mobile category, Sensactive took top billing. Matt Hirsch, a PhD student in the MIT Media Lab, devised an LCD screen that senses gestures in 3-D, enabling users to manipulate on-screen images with a wave of their hand. In their pitch to the MIT audience Wednesday night, the team likened the technology to "Kinect for mobile devices."

The winner of this year's products and services track has already received a significant financial boost: Last year, Green Logistics won the \$100K Elevator Pitch contest for its concept of collapsible air cargo containers that are stackable when empty, conserving cargo space. According to Sloan MBA student Anand Dass, airlines waste millions of dollars' worth of fuel annually transporting empty cargo containers back and forth across the country. The team hopes to shop their prototype around to the airline industry in the coming year, offering potential fuel savings of up to 30 percent.



The startup Upkast led the web/IT category with its plan for a virtual filesharing system. David Jia, a computer science undergraduate at MIT, developed an online platform that connects to popular web applications such as Facebook, Picasa and Google Docs, making it easier for users to jump between applications, sharing files and photos among multiple services. Jia is currently developing an Upkast app for the iPad.

Failure is an option

Venture capitalist Vinod Khosla, co-founder of Sun Microsystems, gave the keynote address at Wednesday night's finale. Khosla said the key to entrepreneurial success is having the guts to fail.

Khosla also advised the young entrepreneurs at MIT: "Sell your heart out, with guts and a level of arrogance that's mostly unwarranted ... inyour-face bravado is absolutely essential [to entrepreneurial success]."

As an example, Khosla outlined his experience applying to MBA programs. His sights were set on Stanford, but he lacked the requisite two years' work experience. Eager to speed the process along, Khosla took an unconventional approach, working two full-time jobs for one year. Still, Stanford hesitated. He badgered the admissions office weekly until, one week before the start of the fall semester, he called with a bold question: Where was his acceptance letter? His persistence paid off: One day before the start of classes, Khosla enrolled as a Stanford student.

New competitive streak

This year, competitors in the \$100K competition also had the opportunity to enter a new category: the Linked Data Prize, an award inspired by the work of Tim Berners-Lee, director of the World Wide Web Consortium. Berners-Lee, who served as a judge for the new



contest, has championed the concept of linked data: unearthing and connecting raw data from disparate sources, thus revealing new patterns between previously unconnected records.

Three teams shared the Linked Data Prize of \$10,000: Convexic, for a novel algorithm that matches job applicants with ideal positions; Link Cycle, for a collaborative online tool that improves environmental life-cycle analyses; and Upkast.

For the first time this year, \$100K organizers also introduced YouPitch — an online contest challenging any student in the world to pitch a business idea, in 60 seconds or less, in the form of a YouTube video. Entries with the most "likes" made it to the final round. The inaugural YouPitch challenge generated 34 videos from four continents, including entries from Pakistan, Cameroon and Taiwan.

The winning video came from Clear Ear, a team from MIT and Stanford that has developed a patent-pending earwax-removal system. While some video entries featured people pitching ideas directly to the camera, Clear Ear took a playful approach, illustrating its concept through a flipbook of hand drawings. MIT electrical engineering and computer science graduate student Michael Yung Peng and Stanford graduate Lily Truong took home \$2,000 in prize money for their video pitch.

"Many of the [YouTube] entries were very innovative, both with respect to ideas as well as delivery," said Kourosh Kaghazian, managing director of the \$100K Business Plan Competition. "We're planning to make it even bigger and better for next year."

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