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World Economic Forum Crowns Greentech Pioneers

The international organization selects 10 greentech companies among its annual Technology Pioneers. Winners get invited to the prestigious conference in Davos, Switzerland, in January.

by: [Jennifer Kho](#)
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The [World Economic Forum](#) announced Thursday it has selected 10 greentech companies as Technology Pioneers.

The companies, Cima NanoTech, FluXXion, Gridpoint, Hycrete, LS9, Nanostellar, Primafuel, Silver Spring Networks, SkySails and Unidym, were selected as part of a group of 38 winners that also came from biotech/health and IT categories.

SiGNa Chemistry, which won under the biotech and health category, also fits into the environmental category.

Rodolfo Lara, head of the Technology Pioneers program, said the program has seen "an excellent class of pioneers" in the energy and environmental areas and expects the number of greentech pioneers to rise in the coming years as those areas get more attention.

"We are impressed about the quality and the diversity of [the energy- and environment-related nominees'] efforts in building a more sustainable future," he said. "Needless to say, the cleantech industry is at the core of one of the most present topics in today's world: global warming. We believe that cleantech will continue its positive impact in helping to solve this issue."

A [panel of 22 technology and industry experts](#) selects the Technology Pioneers -- this year from a pool of 225 nominees -- based on the development of "life-changing" technology innovation with the potential for long-term impact on business and society, according to the World Economic Forum.

Winners are invited to participate in the World Economic Forum, including the prestigious annual meeting in Davos, Switzerland, for two years.

Rahul Iyer, executive vice president at Primafuel, said the award will help Primafuel expand in its international strategy, and -- because of its longer-term focus -- also give the company a chance to talk about bigger issues.

"It elevates the discussion beyond the current tortilla crisis in Mexico, which is important, but doesn't really get into the issues of what we need to do to make this happen over the next decade," he said.

The award is significant validation, in part, because the panel has such a good track record of picking successful companies, he said.

"If market cap is an indication of success, this panel should consider starting up a mutual fund or something," he said. "They've done very well and [the winners] are certainly good company to keep."

This year, the most-represented greentech sector was biofuels, as two of the Pioneers, Primafuel and LS9, are biofuel companies from California.

"It's interesting to see how biofuels continue to be a dominant topic, but we are certain that we will also begin to see other fields coming in the next years," Lara said.

Iyer said the inclusion of five California companies out of the 10 speaks to "the incredible track record of innovation" in the state.

But in spite of working at a biofuel company, Iyer said he was particularly impressed by the diversity of the Pioneers selected within the greentech sector.

"Even though biofuels are important and are in the media a lot -- and I love biofuels -- it's not the only story," he said. "It's important for the public to realize there's a lot more to figuring out our environmental crisis and sustainability questions than figuring out how they can drive their car on sustainable fuel. The diversity of the companies shows the vision and the clarity this panel has in their understanding that it's not just about alternative energy."

Here are short profiles of the winners:

Cima NanoTech, based in St. Paul, Minn, makes nanomaterials, such as conductive inks, pastes and coatings, for the electronics industry. The company claims its materials reduce cost and material usage while increasing the electronic performance. Higher conductivity means less electricity is needed.

FluXXion, based in Eindhoven, in the Netherlands, makes thin membranes that filter liquids for the semiconductor industry and others. The micro-filtration membranes are based on wafers and are only 1 micron thick, which the company claims results in less waste, less maintenance and a longer lifespan.

Gridpoint, based in Washington, D.C., sells products that monitor electricity use in individual buildings, convert the direct current produced by solar, wind and other alternative-energy sources into usable electricity and sell excess electricity back to the grid. The company also has built what it calls the SmartGrid Platform, which gives utilities more insight into the grid so that they can, for instance, strategically discharge and store power according to demand.

Hycrete, based in Carlstadt, N.J., makes a water-based waterproofing and corrosion-protection additive for concrete that makes it possible for the material to be crushed, recycled and reused, instead of ending up in a landfill. The company said that nearly 15 percent of landfill waste in the United States is made up of concrete, largely because traditional additives that make the material waterproof and protect against corrosion make it impossible to recycle the material.

LS9, based in San Carlos, Calif., is a biotech company that is bioengineering organisms to make fuels from materials like sugar cane and cellulosic biomass. The company claims its fuels have higher energy content than ethanol or butanol and have properties that are "essentially indistinguishable" from those of gasoline, diesel and jet fuel.

Nanostellar, based in Redwood City, Calif., uses nanotech to develop materials for the automotive and stationary power industries. The materials for diesel catalysts reduce exhaust emissions and increase the effectiveness of the precious metals in the catalysts by 25 to 30 percent, potentially cutting costs. Customers use the materials to boost the performance of catalytic converters, which reduce pollution.

Primafuel, based in Signal Hill, Calif., is developing technologies and production infrastructure for low-carbon fuels. The company invests in large biofuel projects and is developing new processing equipment, as well as a feedstock -- the material used to make the fuel -- that can be grown in water.

Silver Spring Networks, based in Redwood City, Calif., provides a networking platform that allows utilities to connect different energy-related technologies, such as energy-generation equipment, energy-storage devices, energy-efficient appliances and energy-monitoring and management devices and software.

SiGNa Chemistry, based in New York City, develops green chemistry materials for the pharmaceutical and petrochemical industries, among others. Using nanotech, the company has been able to make reactive metals in a stable powder form that also can react at lower temperatures, using less energy. SiGNa is also developing materials for environmental remediation and for producing hydrogen gas at room temperature for fuel cells.

SkySails, based in Hamburg, Germany, is developing a large kite that can help propel cargo ships using wind. The company estimates the kites will be able to reduce the amount of fuel cargo ships use by an estimated 10 to 35 percent per year, bringing a return on investment in three to five years.

Unidym, based in Menlo Park, Calif., makes nanotubes based on carbon for electronics applications, such as in displays, solar cells, lighting and -- in partnership with Johnson

Matthey and Motorola -- for portable fuel cells. The company claims the carbon nanotubes potentially can be processed at a much lower cost than other electrodes and transistors today.

-- *Rachel Barron and Adena DeMonte contributed to this story.*