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# BIOFORMING news



VIRENT IS REPLACING CRUDE OIL, CREATING FUELS AND CHEMICALS FROM NATURALLY OCCURRING, 100% RENEWABLE RESOURCES.

## THE POWER OF PARTNERSHIP

Since Virent was formed in 2002, the company has established five qualities which differentiate us from other bioproducts companies: (1) our patented catalytic technology; (2) the fact we can work with so many feedstocks around the world; (3) the breadth of products we make, replacing over 90% of a barrel of crude; (4) our extraordinary people; and last but not least (5) our world-class partners – the topic of this article.

Having just welcomed The Coca-Cola Company to the Virent family, I can tell you that Virent has a unique ability for attracting and keeping top-tier **partners**. In our conversations with these companies, we ask them what drew them- and keeps them- in partnership with Virent. The re-

sponse is always very consistent: We are a remarkable group of people, with exceptional technology, with the energy and drive to achieve extraordinary results. Our technology, people and the promises associated with those, are genuine.

Establishing a track record with our partners, who are all leaders in their respective industries, is strengthening Virent's reputation. The challenges to successfully scaling-up Virent's technology with new supply chain partners are enormous. The fact that Virent has partnered with established companies who are experts in their respective supply chains helps reduce risk and position Virent for success.



LEE EDWARDS,  
CEO

### VIRENT WINS LOCAL AWARD

In January 2012, Madison Magazine named Virent one of the Best of Madison Business winners. Virent also received special recognition as the 2012 recipient of the Brian Howell Award for Excellence in Innovation, named after late editor Brian Howell, a champion of the tremendous possibilities that science and technology hold for human and environmental health, as well as economic growth in Dane County and Wisconsin. See Lee Edwards' award article [here](#).



## VIRENT ANNOUNCES PARTNERSHIP WITH COCA-COLA

Virent entered into a new strategic partnership with The Coca-Cola Company to accelerate the commercialization of renewable, recyclable materials for beverage packaging. The companies have signed multi-year, multi-million dollar Joint Development and Supply Agreements to scale-up Virent's plant-based paraxylene (BioFormPX™) as a route to a commercially viable, 100% renewable, 100% recyclable PlantBottle™.

The companies will rapidly progress both development and engineering under this effort, with Virent targeting 2015 for the opening of its first commercial plant. The majority of the PX produced from Virent's first plant will be allocated for purchase by The Coca-Cola Company's supply chain partners for Coke's product packaging. Virent will reserve the remainder of the BioFormPX™ for market development in complementary PET and polyester applications.



Virent and Coca-Cola Commemorate Partnership Agreements in Madison

## BRAD BELL JOINS VIRENT'S BOARD

Brad Bell has joined Virent's Board of Directors. As part of his responsibilities, Mr. Bell will chair Virent's Audit Committee and serve as a member of the Compensation Committee.

He served as Executive Vice President and Chief Financial Officer of Nalco Company from October 2003 through 2010. Prior to joining Nalco, he was Senior Vice President and Chief Financial Officer of Rohm and Haas Company, now part of Dow Chemical. His previous experience includes the Vice President and Treasurer roles at both Whirlpool Corporation and Bundy Corporation.

Earning a B.S. in Finance, Brad graduated with high honors from the University of Illinois. He holds a M.B.A., conferred with distinction, from Harvard University Graduate School of Business.

## FAVORABLE AIR FORCE TEST RESULTS

The U.S. Air Force Research Laboratory (AFRL) at Wright-Patterson Air Force Base released analytical test results of jet fuel produced by Virent with technical collaborator Shell. The results confirm that the fuel warrants further study as a 100% renewable fully-synthetic standalone jet fuel. The AFRL results are exciting because they demonstrate the potential of Virent's catalytic process to create renewable plant-based jet fuel that can meet or exceed petroleum based jet fuel specifications at 100% concentration. Virent expects a high level of interest in the aviation industry for a single, fully-renewable, plant-based jet fuel. As larger volumes of Virent jet fuel become available, the AFRL will conduct further analysis, focusing on fit-for-purpose testing as required by the American Society for Testing and Materials (ASTM).

## VIRENT ANNOUNCES NEW PATENTS

Virent announced the issuance of five new U.S. patents covering aspects of its catalytic BioForming® platform.

Three of the U.S. patents, Nos. 8,053,615, 8,017,818 and 7,977,517, cover the production of liquid fuels and chemicals related to its recent announced partnership with The Coca-Cola Company and ongoing partnership with Shell. The additional two patents, Nos. 7,767,867 and 7,989,664, are directed to the production of a range of other industrial chemicals and chemical intermediates using Virent's BioForming process.

These patents join over 180 domestic and foreign issued and pending applications in Virent's portfolio representing more than 25 different technology families. Virent is the world leader in catalytic conversion of biomass to fuels and chemicals, and this recent intellectual property protection will ensure our strong position for years to come.



## VIRENT RECEIVES FAA AWARD

Virent received a \$1.5 million award from the Federal Aviation Administration and U.S. Department of Transportation, designed to advance the readiness of Virent's drop-in jet fuel. Because the FAA award offers flexibility in terms of feedstock utilization, Virent intends to demonstrate its expertise in converting a wide variety of conventional sugars and biomass to jet fuel under this program.



In addition to the FAA award, Virent has several other initiatives underway supporting catalytic conversion of plant sugars to jet fuel. This past fall Virent received its largest federal award to date, a \$13.4 Million U.S. Department of Energy Award to support conversion of corn stover to jet fuel.

## MARY TILTON FEATURED IN FAST COMPANY



Virent's VP of Plant Operations, Mary Tilton, was featured in the December issue of Fast Company Magazine. Her interview covered Virent's history, partnerships, feedstock optionality and economic considerations facing the biofuels industry. Read the whole article [here](#).

## VIRENT.com ATTRACTING VISITORS

In preparation for the company's announcement with Coca-Cola, Virent launched a new website in November. The new [Virent.com](#) website is receiving around 5,000 visitors per month who stay over four minutes during their visit. The most popular pages after the homepage are the Careers page and the Company page which highlight Virent's leadership, history, awards and partnerships.



## VIRENT ON THE ROAD

February 20, 2012  
February 29—March 1, 2012  
March 28—March 30, 2012

Future for Bioplastic Feedstocks  
PCI Xylenes/Polyester Conference  
Bioplastek Forum

Orlando, FL  
Houston, TX  
Arlington, VA

Virent presents around the world at a wide variety of events, and our annual calendar is kept up-to-date on the [events area of our website](#).