

**ED/GE GRANT KICKS OFF  
NEW DAYTON CAMPUS**

Montgomery County awarded an ED/GE Grant for \$250,000 to the National Composite Center (NCC) in June; setting in motion the first steps toward helping the Center establish its new Dayton Campus for Advanced Materials Technologies (DC-AMT). The campus is the former Building 28 located at 3251 McCall Street in Dayton.



*Artist rendering of DC-AMT Campus*

“This concept for an advanced materials technologies campus is becoming a reality thanks to the leadership and vision of the Montgomery County Commission,” said Lou Luedtke, President and CEO of NCC. “The guidance and support provided by Joe Tuss, Assistant County Administrator and Economic Development Director for the County was instrumental in helping to lay groundwork that will contribute to local revitalization and establish a critical resource for the region and the state.”

According to Luedtke, the Campus will be used to develop materials and processes capable of giving

companies a competitive advantage over global low-cost sourcing. The Campus, which is adjacent to the Delphi Home Avenue plant, will also work to attract high-tech tenants.

**NCC’S DAYTON CAMPUS  
ATTRACTS HIGH TECH  
BUSINESS**

Award of the ED/GE Grant to NCC was quickly followed by a special press conference in July. The Honorable Jon Husted, Speaker of the Ohio House of Representatives announced to an audience of business and community leaders at the Engineers Club of Dayton that combined funding from local, county and state incentives brought San Diego, California-based DR Technologies, Inc. (DRT) to Dayton, Ohio. DRT inked a deal with NCC to purchase its spin-off company Vector Composites Inc. Vector will become the first tenant of the Dayton Campus for Advanced Materials Technologies (DC-AMT).



*DR Technologies is based in San Diego, California*

DRT owns and manages subsidiary companies that provide advanced composite products, including engineering, and development, along with high volume production

capabilities for government and industry clients worldwide. The company will rent 30,000 square feet of space in DC-AMT.

In addition to committing Vector as DC-AMT’s first tenant, DR Technologies will invest \$1.5 million in equipment and improvements in the campus. The move and improvements are expected to be completed April 1, 2007.

DRT was first introduced to the Dayton Region’s resources in 2003 when V System Composites, a DRT subsidiary, teamed with NCC for an Air Force STTR phase I contract. V System Composites also performed vacuum assisted resin transfer molding (VARTM) work for NCC to process its advanced rapid fiber preforms for investigation into aerospace applications of these advanced processes.

“NCC’s rapid fiber preform technologies were complimentary to our resin infusion processes and fit certain requirements we had,” said Lyle Dunbar, Chief Executive Officer for the DR Technologies Companies. “The acquisition of Vector allowed us to tap NCC’s capabilities. The collaborative effort to establish NCC’s new Advanced Materials Technologies campus showed us that Dayton offers the unique infrastructure, resources and environment required to ensure the success of an emerging composite electronic enclosures production business. It’s truly a win-win situation for everyone involved.”



DR Technologies will use Vector to house its Electronic Enclosure Center of Excellence and associated production. The acquisition will allow DR Technologies to expand its research and development and production facilities and provide increased support to local Air Force customers. Mike Louderback, President and GM of V System Composites will also serve as the President of Vector.

“The technologies and capabilities provided by Vector, along with those available through NCC are very synergistic to the current and future products offered by V System Composites. We will be locating several, current products lines to Vector that involve resin transfer molding (RTM), VARTM, and in the near future will be adding autoclaves, clean rooms and other equipment that will make Vector a full-service, world-class composite manufacturing facility,” said Louderback.

“The sale of Vector and the launch of the new campus are the results of a cooperative effort between local, county and state groups,” said Lou Luedtke, President and CEO of NCC. “The Coalition was instrumental in helping to close the sale of Vector and representing our collective regional interests while organizations like Citywide and partners City of Dayton, Montgomery County and the Ohio Department of Development each contributed vital ingredients to helping turn a concept into a reality.

These types of joint efforts continue to entrench the region and Ohio as a leader in advanced materials technology.”

In its August 10 issue, the Dayton Daily News reported that the Dayton City Commission approved development deals totaling \$975,000. V System Composites Inc. and Vector Composites Inc., subsidiaries of California-based DR Technologies, received \$250,000 in development funds to establish a manufacturing operation that will also use NCC’s rapid fiber preforming technology. The preforming process is licensed to Vector.

The CityWide Development Corporation, 8 N. Main St., which will act as the landlord and leasing agent for the campus, got a \$250,000 ED/GE grant from Montgomery County for building improvements. For more detail you can read the full article by visiting [www.daytondailynews.com](http://www.daytondailynews.com).

NCC and DC-AMT were also featured August 9 during TV 7’s evening news broadcast.

### **PETE HALEY NEW VOLUNTEER CHAIR FOR NCC BOARD OF TRUSTEES**

Pete Haley, Managing Partner for Gosiger, Inc., has been named Volunteer Chairman for NCC’s Board of Trustees. He replaces Dennis Rediker, President and CEO of Standard Register, who was recently named Volunteer

Chairman for the Dayton Development Coalition’s Board of Trustees.

Pete has a 27-year history at Gosiger. He serves on the company’s Board of Directors as well as Chaminade-Julienne High School. Pete graduated from The University of Notre Dame in 1978 with a Bachelor of Arts degree. He and his wife, Barbara, have three children.

Gosiger is a machine tool distributor that has been helping American manufacturers maximize productivity through equipment, application experience and exceptional service for over 80 years. Gosiger currently has over 19 divisions in 10 states.

### **HEEDS™ TRAINING CO-SPONSORED BY NCC**

In June NCC teamed with Wright State University to co-sponsor a software course called Introduction to Automated Design Optimization With HEEDS™. HEEDS (Hierarchical Evolutionary Engineering Design System) is a product of Red Cedar Technology, Inc. The training class was held at Wright State University.

By assigning designable variables to any software program, HEEDS has the capability of automating the optimization process. This maximizes efficiency and increases the value of existing company investments in software and personnel. Specifically for NCC,



HEEDS will allow the optimization of composite structures using finite element codes such as ABAQUS, which previously was utilized to perform design analysis only.

In a simple example given, HEEDS was able to optimize the size of a box under an applied load, therefore minimizing the mass and material cost while meeting the requirements for stress and strain. NCC will utilize this program to not only optimize design variables for a given structure but to also synchronize this with processing software, specifically CAD Press, a mold flow analysis package from The Madison Group.

This capability will further advance NCC's lead as the virtual composite design leader by being able to optimize both composite structural variables and processing variables in an integrated fashion. Benefits include minimized mass, material cost, manufacturing time, and manufacturing costs. HEEDS also has the ability to minimize the number of variables for Design of Experiments by virtually conducting experimental runs and identifying less significant variables prior to physical implementation.

NCC formed a partnership with Red Cedar in 2005 to add HEEDS to its lineup of design optimization capabilities.