Technology Commercialization Triangle

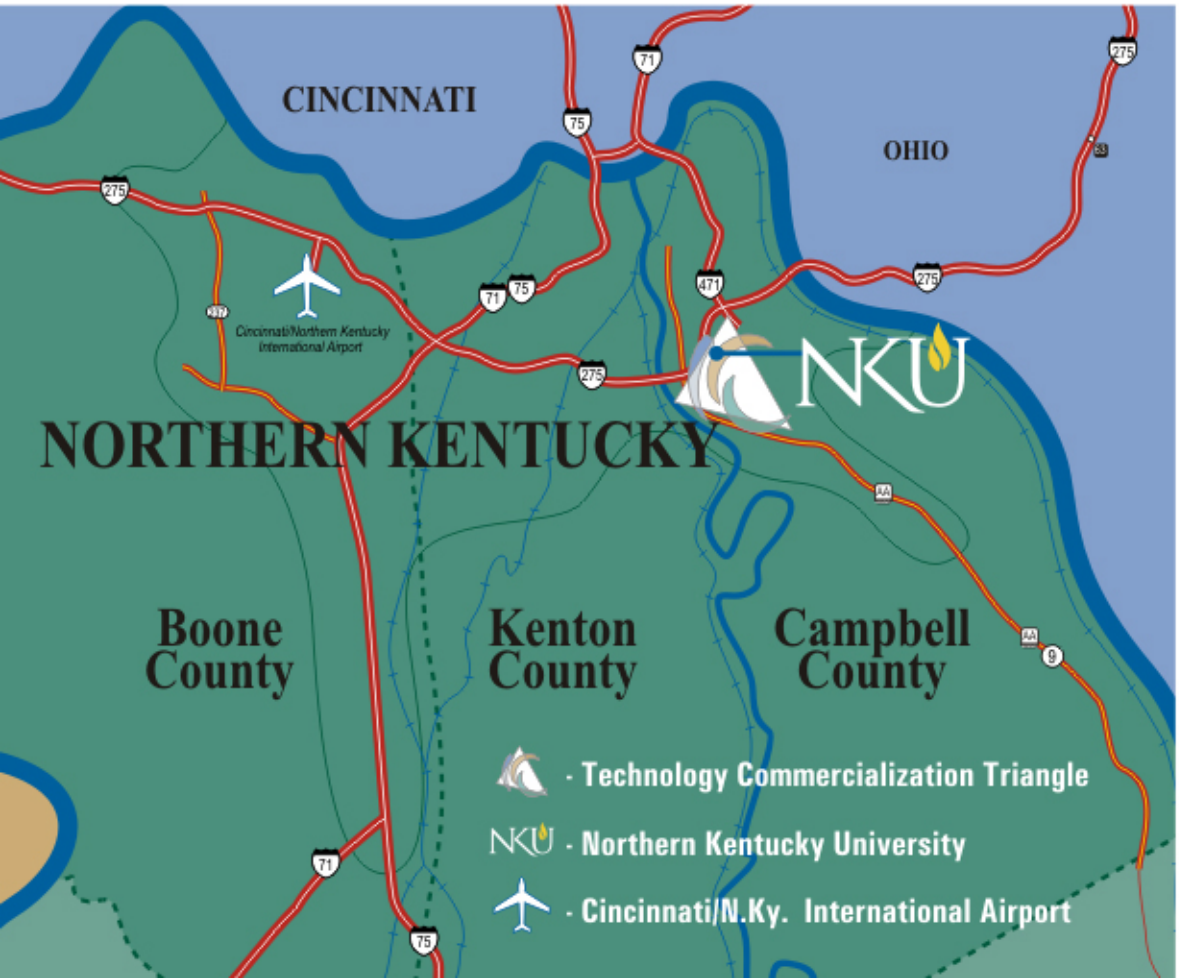
Northern Kentucky University Natural Science Center

Northern Kentucky/Cincinnati USA **Just-In-Time**

The Vision

Northern Kentucky business, civic, education and government leaders are committed to leveraging the assets of Northern Kentucky University (NKU) to attract successful technology-oriented businesses to the Northern Kentucky Technology Commercialization Triangle (NKTCT). While other areas of the country have focused on high-tech incubators for start-up companies, the NKTCT, bounded by US27, I-275 and AA Highway, includes privately funded developments focused on recruiting already successful technology companies that have proven their products/research and want to grow their business to the next level by partnering with a successful regional university. Cities surrounding NKU are focused on attracting quality developments to the campus-like locations surrounding NKU, complimenting their beautiful residential communities.

Qualified knowledge-based workers, interchange of ideas with academic scholars and close proximity to state-of-the-art research institutions make the area surrounding NKU an ideal location for progressive high-tech businesses.



Higher Education Resources:

1. **Northern Kentucky University** - www.nku.edu
2. **University of Kentucky*** - www.uky.edu
3. **University of Louisville*** - www.louisville.edu
4. **University of Cincinnati*** - www.uc.edu
5. **Gateway Community & Technical College** - www.gateway.kctcs.edu
6. **Thomas More College** - www.thomasmore.edu

* Nationally recognized research universities.

"Northern Kentucky is willing to work cooperatively with businesses. It has excellent support services including a great university, strong labor pool, superior telecommunication services and considerably lower operating costs. The entire package made our decision to build our regional headquarters in Northern Kentucky an easy one."

Paul Smith, Site General Manager
Fidelity Investments Midwest Region Campus
Covington, Kentucky

Location, Location, Location

Northern Kentucky University is located just 15 minutes from the University of Cincinnati and about an hour and a half from the University of Kentucky and the University of Louisville. This closeness allows technology businesses the opportunity to match the resources of major research universities with the research work of NKU's faculty and students. In addition, companies can leverage NKU's emphasis on mathematics, science, information technology and entrepreneurship at both the undergraduate and graduate levels. Companies can also take advantage of the Commonwealth of Kentucky's recent commitment to a full-service community college, Gateway Community and Technical College, and a leading private college, Thomas More College, in the Northern Kentucky community.

This exceptional development area is just a few exits from the Cincinnati/Northern Kentucky International Airport. It is only seven miles, via I-471, from many Greater Cincinnati area attractions such as the Reds, Bengals and riverfront entertainment, as well as world class arts, museums and attractions such as Newport on the Levee. The triangle area straddles the Greater Cincinnati loop, I-275, for easy travel to all areas of the region.

Northern Kentucky/Cincinnati is a charming mix of urban amenities and open spaces that excels in nearly every measure of livability. A thriving metropolis of nearly 1.9 million people, the area has sidestepped many of the problems often associated with large cities. Crime is low, commuting is easy and cost of living is 5% below the national average.

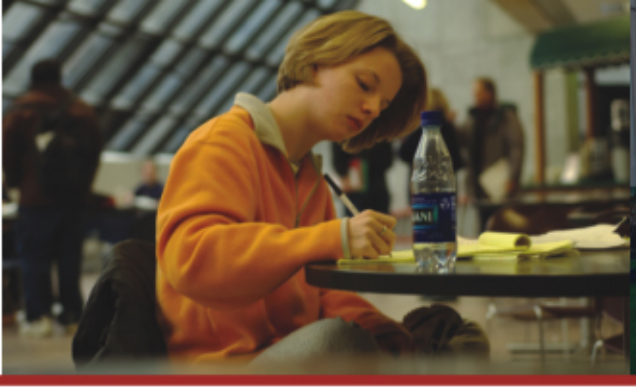
NKU: Supports Business

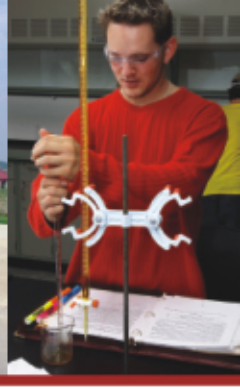
In Northern Kentucky, we recognize the importance of providing a single source contact to access University services. In answer to this need, NKU created the Institute for New Economy Technologies (iNET) to work with progressive companies so that the University's educational services align favorably with the growth plans of regional businesses. The Institute regularly convenes University departments to ensure that the departments are prepared to meet the demand to support knowledge-based companies. (www.nku.edu/~inet/)

To meet these needs, NKU is building an infrastructure that can support technology businesses, including: training faculty, developing new course work, redeveloping traditional course work, implementing technology-rich teaching environments and building out technology support systems.

NKU's Academic Programs Include:

- Fast-paced, non-traditional, just-in-time professional education and training services to maintain appropriate educational levels for the area workforce.
- Formal degrees in non-traditional formats (short intense courses, evening and weekend offerings, web-based course work, and support services).
- Graduate level programs that follow non-traditional formats for management and executive level workers.
- Executive level (CEO, CFO) information technology/knowledge management training to assure their success in the New Economy.
- Intern/co-op program.





NKU: Experienced at Partnering with Business

Medical Research Laboratories International, a high-tech company located in the NKU Foundation Research Park adjacent to NKU's campus, was created by a former University of Cincinnati professor who considered the affordable land and close proximity to NKU faculty and students ideal for his business growth plan. General Cable Company, a nationally recognized fiber optics cable company is also located in the Research Park. Fidelity Investments currently employs more than 200 NKU students at its on-campus customer service center. Fifth Third Bank has partnered with NKU to develop an on-campus Entrepreneurship Institute.

Northern Kentucky University is proud of its ongoing relationships with the following companies:

Ashland Inc.

The Bank of Kentucky

Delta Air Lines, Inc.

Federated Department Stores, Inc.

Fidelity Investments

Fifth Third Bank

Procter & Gamble

St. Elizabeth Hospital

St. Luke Hospital

Toyota Motor Manufacturing North America

and many more

and the following markets:

Advanced Manufacturing Technology

Communications

Environmental Technology

Financial

Health Care

Market Research

Pharmaceutical Research and Development

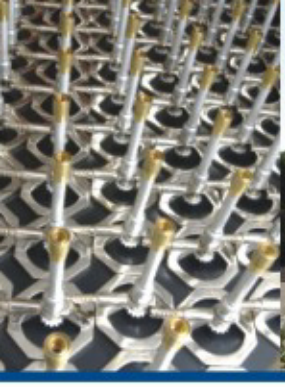
Transportation/Logistics

The Northern Kentucky/Greater Cincinnati region has a wealth of product/service market research firms to support first tier companies such as Procter & Gamble and Kroger. Some of these local firms are considered national and international leaders in the market research industry. Through an existing partnership with NKU, these firms can be organized to support the market research needs of New Economy businesses.

NKU is dedicated to graduating students with highly technical skills; these graduates are potential employees for growing New Economy companies. With NKU's retention of about 90% of its 33,000 graduates in the local economy, employing a student as a co-op or intern can easily lead to a quality permanent workforce. Technology businesses will also have immediate access to faculty who can assist with research projects.

"NKU does very well at producing technology-oriented people who have an excellent work ethic. We have, over the years, at Medical Research Laboratories, employed numerous NKU co-op students from programs focused on information technology, office administration, and finance, among others. Many of these students are now our employees as they contributed maturity, ability and practice skills to our work place and added value to our services."

Joseph L. Staneck, Ph.D., Senior Vice President
MRL International
Highland Heights, KY



NKU: Preparing Science and Technology Professionals

The Center for Integrative Natural Science and Mathematics (CINSAM) is NKU's Program of Distinction, as designated by the Commonwealth of Kentucky. One of the primary goals of CINSAM is to provide students with opportunities for internships and other experiential learning in area technology companies. A seamless effort, led by NKU, is underway to nurture the curiosity and develop the skills of our citizens, beginning in elementary school and continuing through graduate and first professional level education.

NKU has developed unprecedented cooperative efforts to ensure infusion of math/science and use of information technology into the curriculum so that P-16 students are adequately prepared for the New Economy as they enter the workforce. A recently constructed 172,000 square foot science building on NKU's campus houses much of CINSAM's activities.

This integrated and comprehensive program will prepare highly skilled workers to support Greater Cincinnati's growth in the science-based and knowledge-based economies. (www.cinsam.org)

Northern Kentucky University is known for its Information Technology academic progress. In a 2002 study, completed by connectkentucky, NKU was noted for leading the way in enrolling and graduating Information Technology students in the Commonwealth of Kentucky.

"Toyota began a partnership with Northern Kentucky University shortly after we started doing business in Northern Kentucky in 1996. Toyota provides funding for student scholarships, supports the Saturday school on NKU's campus for Toyota's and the area's Japanese families, and supports the operations and future of the university through Toyota Vice President Chuck Brown's position on the Board of Regents. Toyota recently awarded NKU $1,000,000 in support of pre-college math and science education programs and high-tech laboratory equipment. The funding will support the Youth Scholars in Math and Science Program, which will serve to increase the capabilities, awareness and interest of middle school students in mathematics and science."

Dennis Cuneo, Senior Vice President
Toyota Motor Manufacturing North America, Inc.
Erlanger, Kentucky

NKU Supported Research:

Gene-Based Studies

Physiological & Behavioral Studies

Psychometric Measurement Studies

Algal Growth & Water Quality Studies

Chemical Structure Studies

Photonic Studies

Phase Change Studies

Computer Security

Programming Languages

Knowledge Base & Expert Systems

Embedded Systems Design

Software Engineering

Numeric & Geometric Computation

Neural Network Studies

Genetic Algorithms Bioinformatic & Optimization Methods

Ask companies doing business in Northern Kentucky/Cincinnati and they'll tell you the region's outstanding quality of life gives them a competitive edge. Those recruited to work in Northern Kentucky/Cincinnati stay. They discover that the area offers great neighborhoods and schools, a top-rated international airport, major league sports, world-class cultural arts and abundant parks--all in the picturesque Ohio River valley.

NKU: Innovation

NKU innovative programs in support of knowledge-based companies include:

- The Metropolitan Education and Training Services (METS) unit is designed to provide continuous learning services to tri-state employers. METS is housed in a new 43,600 sq. ft. interactive education and training facility where educational services can be delivered to local businesses from around the world in a just-in-time manner. The program is employer-driven and dedicated to providing high-quality, affordable workforce training where and when it is needed. (www.usemets.org)
- Northern Kentucky University's Marketing Research Partnership (MRP^2) between NKU and the regional marketing research industry provides exciting new possibilities. This partnership can be an important resource to technology companies that choose to locate in the development area near the University. Consumer product testing and research can be accomplished through this partnership program. (www.nku.edu/~mgtmkt/mrpp.htm)
- The Fifth Third Bank Entrepreneurship Institute at NKU is dedicated to creating value through innovation in organizations of all sizes. The Institute serves entrepreneurially-inclined students and the business community by maximizing learning opportunities. A minor in Entrepreneurial Studies and an MBA specialization in Entrepreneurship are offered as part of this innovative program. The institute provides a high level of engagement with entrepreneurs representing a broad range of industries. (www.53ei.org)
- NKU provides facilities for students to use state-of-the-art information technology equipment to conduct group or individual research, fulfill intern work projects on campus and collaborate with New Economy businesses. These labs provide another way for students and technology-oriented businesses to connect to serve the student and business goals. These labs also allow students to gain experience with technology that is necessary to be successful in New Economy businesses.

Science Center with State-of-the-Art Equipment:

Typhoon 9200 Imaging System

Sorval Ultracentrifuge

Confocal Microscope

Scanning Electron Microscopes

500 MHz Nuclear Magnetic Resonance Facility

Atomic Absorption Spectrometer

Laser Spectrometer

Infrared Spectrometer

Differential Scanning Calorimeter

X-Ray Diffractometer

Supercomputer Cluster

By any measure, Northern Kentucky/Cincinnati is a great place to buy a home, raise a family and enjoy all life has to offer. Consider what these prestigious publications said about Northern Kentucky/Cincinnati in recent years:

- **"North America's Most Livable City," Places Rated Almanac**
- **"Best U.S. Cities for Work and Family," (top 5%) Fortune Magazine**
- **"Best Place to Live," (top 7, large midwestern cities) Money Magazine**

Superior Technology Infrastructure

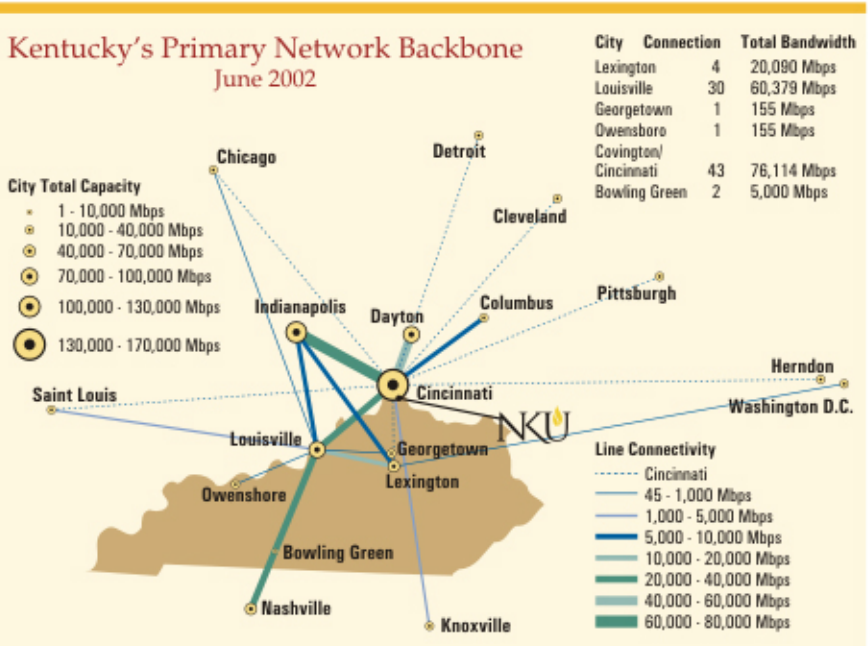
Kentucky's information network is concentrated in Northern Kentucky, making the region a hub for connectivity. Three levels of connectivity allow the Commercialization Triangle access to the highest speed networks and broadband infrastructure throughout the Midwest. This global infrastructure links major networks across the country, from Washington D.C., Chicago and New York to global interworking points worldwide. The regional Internet Service Providers (ISP's) connect major private networks to global commodity networks at speeds of 40,000 to 80,000 Mbs per second. High speed connectivity to major institutions of higher education such as University of Cincinnati, University of Louisville and University of Kentucky provide instant access to world-class research and development. In Northern Kentucky, local ISP's connect you with an impressive 130,000 to 170,000 Mbs per second. The system capacities exceed those found in Columbus, Ohio, and Milwaukee, Wisconsin, and many other cities around the nation, making the region an excellent location for technology-driven industries.

Northern Kentucky University has 1,200 computers available to students in 32 labs and public access electronic cafes. These computers have Internet access through the university's 40 MB pipeline.

Northern Kentucky University has about 100 smart classrooms, with state-of-the-art technology, throughout the campus. There are also multiple video-conferencing facilities on campus supporting ISDN and IP standards. IP-based video conferencing and gateway equipment will enhance the video-conferencing capabilities on campus allowing any of these standards to be utilized throughout the campus.

The University provides a multitude of courses and programs, partially and 100% via the web, and video conferencing, and hosts a cable TV access station.

Northern Kentucky University has built a high-speed data network on which all of this rides. This Cisco-based network runs a minimum of two-gigabit along the backbone to 75% of the buildings on campus, with a minimum 400 MB to the remaining buildings. Plans are in the works to bring all buildings up to a minimum of two-gigabit. Extended campuses are connected to the Highland Heights Campus through point-to-point wireless connections. Wireless networking is becoming more prominent on campus.



Ninety percent of all computers are attached with a 100MB connection to the network, with plans to bring this to 100% soon. The University is also in the process of bringing Internet II to campus. The wiring standard for the data network is being upgraded to NetClear Category 6.

The Computer Center houses more than 60 file servers running a multitude of platforms including: Windows 2000, Windows NT, Linux, and VMS. Security is of the highest priority within this data center running dual PIX fire walls with intrusion detection, VPN, and network-based anti-virus software.

Technology Commercialization Triangle

Wilder City Limits

Highland Heights City Limits

Cold Spring City Limits

Unincorporated Area

Enterprise Zone

The City of **Wilder** is well suited for a variety of development opportunities. Wilder comprises much of the prime business park land in Campbell County. Great highway access to major interstates and state highways provides easy access to all parts of the region.

Situated just minutes from downtown Cincinnati, the Northern Kentucky/ Greater Cincinnati International Airport and Northern Kentucky University, Wilder has incredible economic development potential.

The City of **Highland Heights'** Comprehensive Plan focuses its economic development efforts at the entrance to NKU (US27/Nunn Drive) and at the existing Research Park adjacent to NKU (I-275/University Drive).

Together these areas provide about 17 acres of strategically located, available land that could include two new buildings of about 60,000 sq. ft. for technology-oriented companies.

The City's plan calls for development of a hotel and conference center at the US 27/Nunn Drive site.

The City of **Cold Spring's** major economic development is planned at the US 27/ AA interchange with additional development available in the north central corridor of the city.

The city's Comprehensive Plan identifies 100+ acres located in the northeast quadrant of the US 27 / AA interchange as especially suitable for high-tech office and related services. A hotel/conference center is proposed to be incorporated into this site.

Directly across US 27, in the northwest quadrant, are 8+ acres ideally suitable for a low impact technology campus setting. Approximately 5+ acres are sited in the north central corridor for multi-purpose development.

NKU Campus Development Plan

- www.access.nku.edu./campusplan

New Natural Science Center

Dedicated, Fall 2002
$38 Million Integrative Science Building
172,000 sq ft State-of-the-Art Facility

Planned Connector Road I-275 to AA Highway

4 Lane Access
New Development Loop Surrounding NKU

to AA Highway

NKU NORTHERN KENTUCKY UNIVERSITY

- 388 Acre Campus
- 11 Academic Facilities
- 1400 Student Residents
- 16,000 Students by 2005
- 62 Undergraduate Degrees
- 10 Graduate degrees
- 7 Miles from Cincinnati Riverfront
- 14 Miles from Cincinnati/N. Ky. International Airport

Planned Northern Kentucky Regional Special Events Center

Seating for 7,500: sports, convocations, concerts
300-350 club seats
10 private suites
120 events per year

Planned Hotel/Conference Center & Business Center

12 Acre Site
Located at Entrance to NKU
Enterprise Zone Eligible
Property Owned by NKU Foundation

Planned University Drive Development

Five Acre Site
Adjacent to NKU and NKU Foundation Research Park
Enterprise Zone Eligible
Build to Suit
Property Owned by NKU Foundation
Research Park Home to:
Medical Research Laboratories and General Cable

Existing Facilities **New/Planned Facilities**

Technology Commercialization Triangle Incentives

Northern Kentucky Tri-ED, the regional economic development agency, serves as a liaison between business clients and the appropriate state and local government agencies regarding incentives. Northern Kentucky Tri-ED can assist in determining applicability and potential value of incentives. Listed below are the primary incentives available to firms considering location or expansion in the Technology Commercialization Triangle area. For additional information, see www.thinkkentucky.com or www.NorthernKentuckyUSA.com.

Terms and Requirements	Kentucky Jobs Development Act	Kentucky Industrial Development Act	Kentucky Direct Loan Program
Qualifying Businesses	New or expanding non-mfg. & non-retail	New and expanding mfg.	Non-Retail
Kentucky-Resident Jobs Created	15 Full-Time	15 Full-Time	3 Full-Time
Basis for Incentive	Up to 50% of limited startup costs and up to 50% of annual rental value of facility	Capital investment for land, building fixtures and equipment. Equipment costs limited to $10,000 per job	Fixed asset financing not to exceed 25% of project cost
Value of Incentives	Credits up to 5% of qualified payroll from state and local personal income taxes and/or 100 % state corporate income taxes.	May choose 3% of payroll or 100% state corporate income taxes	Loans up to $500,000 made based on jobs created at interest rates from 1.0 to 5.0%
Duration	10 years max.	10 years max.	3-10 years
Special Provisions	Must meet minimum wage and benefit thresholds	Must meet minimum wage and benefit thresholds	Personal guarantees from owners with minimum 20% control
Terms and Requirements	**Campbell County Enterprise Zone**	**Job Training Grants**	**Industrial Revenue Bonds**
Qualifying Businesses	All types	Manufacturing and certain non-mfg. firms	Primarily manufacturing
Kentucky-Resident Jobs Created	No minimum	No minimum	No minimum
Basis for Incentive	50% of services in the Zone; NEW-25% of jobs from targeted workforce; EXISTING-20% workforce or capital investment increase	Training plan submitted to Bluegrass State Skills Corporation scored on established criteria	Capital investment for land, building, fixtures and equipment
Value of Incentives	Sales tax exemptions on building materials and new equipment; motor vehicle usage tax breaks on qualified vehicles; 10% wage tax credit on certain employees; certain regulatory relief; certain property tax moratoriums and abatements	Dependent upon funding availability; no more than $25,000 per company per year	Below-market financing for tax-exempt and taxable bonds with the potential for real and personal property tax abatements by state and local governments.
Duration	At least through 2007	Length of training plan	Up to 20 years
Special Provisions	State and local approvals required	Requires 50% cash company match of training funds	Bonds must meet federal requirements

Additional state and local incentives may apply to particular projects. Consult with Northern Kentucky Tri-ED for additional details.

Northern Kentucky Economic Development

Northern Kentucky Tri-ED consistently ranks among the top 10 economic development agencies in the nation. It earns this distinction for its cutting-edge approach to site information management and its phenomenal commitment to service. Tri-ED's focus is twofold: to streamline what is often a complicated site selection process and to help companies continue to thrive once they've made the move to Northern Kentucky.

The agency set a new standard in electronic information access by launching one of the top Web sites in the field of economic development. Based on uniform Site Selection Data Standards, the Tri-ED Web site enables site selection managers worldwide to quickly access critical decision-making data. (www.NorthernKentuckyUSA.com)

"Central Campbell County's rolling hills and great residential communities , complemented with an outstanding, community-focused university makes the area an ideal location for technology-driven companies"

Judge Executive Steve Pendery
Campbell County Fiscal Court
Campbell County, KY

Northern Kentucky Tri-ED Basic Services:

- Demographic/Economic Data on Northern Kentucky
- Available Industrial Sites/Buildings
- Available Office Sites/Buildings
- Labor Market Information:
  - Wage and Fringe Benefit Surveys
  - Labor Availability
  - Organized Labor Information
  - Labor Recruitment
- Utility Information:
  - Power, Water and Sewer Rate Quotes
  - Availability and Capacity information
- Tax Information - State and Local Comparisons
- Transportation Services - Air, Highway Rail and Barge
- Community Livability Resources
- Incentives:
  - State Financing and Incentive Programs
  - Local Incentives
  - Job Training Assistance
- Economic Impact Studies
- Permit Expedition - State and Local
- Business Support Services Referrals

The Technology Commercialization Triangle Contacts:

Primary Contact:

Tri-County Economic Development Corp.
Office of the President and Chief Executive Director
(859) 344-0040 www.NorthernKentuckyUSA.com

Other Contacts:

University Information:

Northern Kentucky University
Office of the President
(859) 572-5191 www.nku.edu

Local Government Information:

Campbell County Fiscal Court
Office of Judge Executive
(859) 292-3838 www.campbellcountyky.org

New Economy Information:

Kentucky Office of the New Economy
Office of the Commissioner of the New Economy
(502) 564-0531 www.one-ky.com

Regional Innovation and Commercialization Center
Office of the Executive Director
(859) 292-8444 www.madisone-zone.com

State-wide Information:

The Kentucky Cabinet for Economic Development
Office of the Director
(800)-626-2930 www.edc.state.ky.us

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Tri-County Economic Development Corporation
www.NorthernKentuckyUSA.com
Phone: 859/344-0040 Toll Free: 1/800/874-3365 Fax: 859/344-8130
300 Buttermilk Pike, Suite 332 P.O. Box 17246 Covington, Kentucky 41017

Funding Provided by the Kentucky Office of the New Economy