



BREAKING NEWS

NYS Department of Labor Releases NEW Training Grant

On June 8, 2009, the New York State Department of Labor released a new incumbent worker training grant: the **BUilding Skills in New York State (BUSINYS) #38-Q**. Approximately **\$5 million** in statewide funds received under the Workforce Investment Act have been made available for this grant program. *This is the first of up to (3) BUSINYS RFPs planned for this year.*

Application Deadline: 4:00 PM Eastern Time on July 20, 2009.

Purpose: To support employer strategies and local efforts for lifelong learning for the development of the incumbent (employed) worker by providing funds for upgrading the occupational skills of those workers.

General Requirements:

- No minimum award amount.
- Annual Maximum of \$50,000 per company or consortium.
- Lifetime Maximum of \$100,000 per company or consortium. **NOTE: This lifetime limit does not apply to funds received under any other BUSINYS grants (#'s 32-I, 25-L, and 37-L), nor does it include funds received under any other Department grants (SMART, ADVANCE-NY, STEP, STRAP, etc.).**
- Cap of \$3,000 per employee per proposal.
- Contracts awarded for a period of up to 6 months (each application). Under extenuating circumstances, extensions of up to 3 additional months may be awarded at the discretion of the Department.
- Companies must:
 - Be a private sector, for-profit or not-for-profit business and have four or more employees or a consortium of two or more such business that have the same training needs.
 - Be headquartered or have at least one physical location in New York State.
- Funds may be used to pay for outside vendors or in-house trainers to provide on-site training, off-site training or distance learning.
- Training must take place on company time and trainees must be compensated at no less than their normal rate of pay while they are attending training.

Applicants are required to contact the local workforce investment area before completing or submitting the application. Please contact the appropriate regional workforce office for assistance:

- *Broome-Tioga county businesses:* Rebecca Ducsik, 607-778-2230
- *Chemung, Schuyler and Steuben county businesses:* Dan Porter, 607-937-8337
- *Chenango, Delaware and Otsego county businesses:* Gary Waffle, 607-334-2201X128 or Alan Session, 607-432-4800 X103
- *Tompkins county businesses:* Julia Barrett-Mattick, 607-724-7526

For a full description of the grant program and to start your application process go to:
<http://www.labor.state.ny.us/workforcenypartners/fundingopps/BUSINYS%2038Q%206-03-09%20RFA%20%28%29.pdf>.

For information about how AM&T can assist, contact:

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National Study Finds Critical Threats to U.S. Manufacturing

**Global markets, sustainability pose challenges to a majority of firms
Small manufacturers especially at risk**

A national study released today by the American Small Manufacturers Coalition (ASMC) identifies critical threats to the ability of U.S. manufacturers to compete and win in a fast-changing 21st century global economy.

More than 2,500 manufacturing firms across the nation participated in the Next Generation Manufacturing Study, a research effort coordinated by ASMC and member Manufacturing Extension Partnership (MEP) centers. The study is the first step in a long-term effort to help U.S. manufacturers survive the recession and renew America's manufacturing leadership over the next decade.

Next Generation Manufacturing refers to a framework of six strategies essential for global competitiveness today and in the future. The strategies are customer-focused innovation, systemic continuous improvement, advanced talent management, global engagement, extended enterprise management and sustainable products and processes. The study included a 61-question web-based survey that asked manufacturers to rank their progress in these areas.

"The results are a wakeup call," said Michael Klonsinski, ASMC board chair and executive director of the Wisconsin MEP. "The consequences of inaction could trigger even more job losses in manufacturing and ultimately a lower standard of living for all Americans."

Among the key findings:

- A serious gap exists between the strategies U.S. manufacturers believe are critical to their future success and their actual progress in implementing those strategies. More than a quarter of American manufacturers – representing more than 90,000 firms – are at risk because they are not at or near world-class performance levels in *any* of the next generation strategies.
- Small and midsize manufacturers are less likely than larger firms to be at or near world-class status in each of the next generation strategies. One third of respondents with less than \$10 million in annual revenue are not at or near world-class in *any* strategy, in contrast to 14% of respondents with more than \$100 million in revenue. In a country where 282,000 small and midsize firms comprise the backbone of the industry, this is a significant threat to U.S. competitiveness and the viability of these companies.
- Green/Sustainability ranks low among the strategic priorities of U.S. manufacturers despite increasing government regulation, growing consumer demand and new requirements from large manufacturers in their supply chains. Only 16% of respondents rank green/sustainability as highly important to their success over the next five years. Another 16% said it was not important.
- Only 28% of respondents believe global engagement is highly important despite a near-term future in which markets, talent, competitors and partner opportunities are growing faster outside the U.S. than within its borders.
- Leadership loss represents a significant threat – or opportunity. One quarter of respondents say a planned leadership succession will occur within the next five years – potentially impacting 80,000 U.S. manufacturing firms. Another 29% think a succession may occur. This transition represents an opportunity to inject new ideas, energy and skill sets into these firms but also represents a significant risk where a succession plan is not place.
- Measurement systems are inadequately deployed. Even in one of the most fundamental and easiest-to-measure areas – process improvement – 46% of the respondents had no or only ad hoc measurement systems.

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National Study Finds Critical Threats to U.S. Manufacturing

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- Effective partnerships with employees, suppliers and regional support organizations are the exception rather than the norm. For example, the majority of respondents engage *less than half* of their employees in improvement initiatives, falling short of industry best practices that require company-wide participation.

To download more information on the study and findings, visit www.smallmanufacturers.org.

Challenges real, not insurmountable

Manufacturing employs 13 million Americans and drives job growth in supporting industries such as logistics, marketing, transportation and business services. Manufactured goods represent two-thirds of U.S. exports and drive more net wealth creation than any other sector. Yet even before the recession, the nation's manufacturers were facing intense international competition and a host of other challenges.

"The solution is not to shift away from manufacturing, but to transform our manufacturing base into a faster, more flexible industry capable of capturing global market share," said Klonsinski. "The good news is that many manufacturers are already adopting next generation strategies and becoming stronger, more profitable firms as a result. The challenges we're facing are real but not insurmountable."

Business leaders, manufacturers and industry thought leaders say Next Generation Manufacturing represents a way forward for U.S. manufacturers.

"Manufacturers that focus on achieving world-class status in Next Generation Manufacturing strategies are leaving their competitors behind," said John Brandt, CEO of the Ohio-based Manufacturing Performance Institute (MPI), a global research firm that conducted the study. "They manage differently, implement best practices at far higher rates and outperform their non-world-class peers on a wide array of operational and financial metrics."

The study results provide a wealth of data for manufacturers, business leaders and state and national policymakers. Manufacturers can see how they rank against performance benchmarks and target improvements where needed. Knowing where the critical needs are, policymakers can strengthen and improve programs and services supporting manufacturers, said Klonsinski.

The ASMC study was spearheaded by MEP centers in 18 states including Florida, Illinois, Kentucky, Maine, Massachusetts, Missouri, New Hampshire, New Jersey, North and South Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont and Wisconsin.



The American Small Manufacturers Coalition (ASMC) is the national trade association of MEP Centers and partners. MEP is a national network of centers in 50 states and Puerto Rico focused on improving the competitiveness of U.S. manufacturers. These centers provide small and midsize manufacturers with public and private resources and services to promote growth, innovation and productivity. For more info visit www.smallmanufacturers.org

Four Lessons from Bill Gates

Apply these leadership tips from Bill Gates:

1. Take two "retreats" every year. Leave your office to develop long range strategies.
2. Read books on topics that don't pertain strictly to your business or industry. It's the best way to maintain a broad perspective.
3. Identify problems early by tracking "exceptions," such as sales figures that suddenly sag for a particular product. Jump on them right away.
4. Stop at the end of each day to analyze how well you used it. If you wasted time on things you didn't need to do, eliminate them tomorrow.



Alliance for Manufacturing & Technology

...helping organizations achieve & sustain growth, profitability and world-class performance

A NYSTAR Designated Regional Technology Development Center and a NIST MEP Center

July 2009 Newsletter

NIST Seeks Proposals for \$35 Million in Grants for Measurement Science

(NIST: Gaithersburg, Maryland) -- The National Institute of Standards and Technology (NIST) has announced that it will award up to \$35 million in grants and cooperative agreements for measurement science and engineering research. Approximately 20 to 60 awards, lasting from 1-3 years, and ranging from \$500,000 to \$1.5 million, will be funded by these grants, which are part of the 2009 American Recovery and Reinvestment Act.

NIST is looking for proposals that advance the state of knowledge and practice of measurement science in six identified research areas of critical national importance:

- Energy
- Environment and climate change
- Information technology and cyber security
- Biosciences/health care
- Manufacturing
- Physical infrastructure

State-of-the-art measurement science provides the infrastructure that indus-

try and science need to develop and commercialize new technologies. The air conditioning and refrigeration industry, for example, has saved millions of dollars over the past 20 years due to NIST's work on the measurement of the thermophysical properties of alternative refrigerants (i.e., alternatives to ozone-depleting compounds).

The United States' innovation and competitiveness in areas such as automobile manufacturing, medical imaging, bridge safety, climate change studies, cloud computing, and renewable energy sources depend on measurement science research.

In addition to advancing NIST's mission to quickly develop measurement methods as new science and technology emerges, these grants are also expected to create jobs, promote economic recovery, and make investments in research areas that will provide long-term economic benefits.

The program is open to U.S. higher

education institutions, nonprofits, and commercial organizations, as well as state, local, and Indian tribal governments.

The deadline for applications is Monday, July 13, 2009. NIST expects to announce grant awards later this year.

For more detailed information on the Measurement Science Grants, see the links on the NIST Recovery Act Measurement Science and Engineering Research Grants Program web page at www.nist.gov/recovery/measurement_program.html. Application information is available at Grants.gov under Federal Funding Opportunity code 2009-NIST-ARRA-MSE-RESEARCH-01 or CFDA 11.609.

A Federal Register notice, "Recovery Act Measurement Science and Engineering Research Grants Program" (Docket Number: 090306283-9284-01), announcing this competition was published on June 1, 2009.

Low-Cost Financing Program for Small Businesses

Empire State Development (ESD) has announced the expansion of their Linked Deposit Program to assist small businesses obtain access to low-cost financing. The program assists small businesses in financing improvement projects by reducing the cost of interest on commercial loans by two or three percent.

A company may have up to three open loans for a total of up to \$1 million; no single loan may exceed \$500,000. There is a lifetime Linked Deposit Eligibility limit of \$1 million.

Linked Deposits are reserved for four years and renew at 12-month intervals. During the four year term, the certificate of deposit and adjusted loan rates do not change.

NY firms that are eligible for a 2% rate reduction include:

1. Manufacturers with 500 or less full-time employees in NYS
2. Service firms with 100 or less full-time employees in NYS that are independently owned and operated and not dominant in their field

NY firms undertaking expansions that are eligible for a 3% rate reduction include:

1. Empire Zone certified businesses with 100 or less full-time employees in NYS
2. Businesses in highly distressed census tracts with 100 or less full-time employees
3. Certified Minority-or Women-Owned Business Enterprises

(MWBES) that need financing to fill a NYS or federal procurement contract

4. Defense industry manufacturers (with at least 25% of gross revenue derived from defense contracts/subcontracts) investing to reduce dependence on the defense industry by diversifying production to non-military markets

A business seeking financing for a new project should discuss this program with a commercial bank, savings bank and loan association or farm credit institution with which it does business. The lender will make the credit decision and then apply to the Linked Deposit Program on behalf of the business.



AM&T Associate Since 5/2005

Since opening the doors in 1998, the Westcode's Binghamton facility located on Airport Road, primarily manufacturers OEM HVAC equipment for the New York City Transit Authority, Port Authority, Metro North Railroad, and New Jersey Transit.

Westcode has three domestic manufacturing plants in West Chester, PA, Binghamton, NY and Galesburg, IL-locations that allow easier access to the growing rail authorities and accompanying car builders. An expansion plan was started six years ago that has brought overwhelming success in attracting both OEM, overhaul and spares business, with an ever growing list of customers. Westcode practices continuous improvement of products and services to encourage new customers and retain their traditional customers. As the tri-state area moves ahead to upgrade an aging rail transit system, Westcode has been selected as the HVAC supplier of choice, and has begun shipments to ROTEM Co for the Southeastern Pennsylvania Transportation Authority (SEPTA) project, as well as Buffalo and Utah rail systems overhauls.

Westcode's Binghamton facility will see substantial growth immediately and long into the future with several already established contracts. The increase in business has resulted in enlarging the facility during 2008 from 40,000 square feet to 70,000 sq. ft. The overall workforce has risen to approximately 300 employees and, with the expansion of their UK facilities to 40,000+ sq. ft., Westcode now has over 150,000 sq ft. of total manufacturing space.

For more information, contact: Ed Widdowson, Chairman
610-574-9199



Annual Benefits of AM&T Association

- **Four hours free AM&T consulting service**
- **Free Performance Benchmark** (\$600 value)
- **Discounted fees** for AM&T sponsored seminars / workshops
- **Your Company featured** in the "Associates' Corner" of AM&T's Monthly Newsletter
- **Link provided** from AM&T's Web site to yours
- **Assistance with:**
 - √ technology transfer
 - √ funding sources
 - √ venture capital investment
 - √ networking
 - √ research & development programs
 - √ other resources
- **One Board seat** for Corporate Level Associates

To discuss your association benefits, contact:

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Visit: www.amt-mep.org for more AM&T information



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July 2009 Newsletter

Technical Assistance Program Available for Small Business Entrepreneurs

All Small Business Entrepreneurs interested in the U. S. Department of Energy's Small Business Innovation Research (SBIR) Program are cordially invited to use the DOE SBIR Technical Assistance Program Web Portal at doecapreg.foresightst.com.

The DOE SBIR Office has contracted with Foresight Science & Technology, Inc., a leading firm in commercialization and technology transfer, to provide a Technical Assistance Program (TAP) commercialization web portal which provides prospective SBIR applicants and other energy entrepreneurs with the tools, training, and support to write a successful SBIR proposal. For more details on what's available to you, please read more.

The DOE SBIR TAP Portal is built on Foresight's T2+2™ platform which has numerous features incorporated specifically for potential SBIR awardees, including:

- **Commercialization 101™:** An e-learning course on commercialization and how to do market research and deal-making.
- **Market Overviews:** Analyses on markets as they relate to over 200 R&D Technical Topics and Subtopics in the latest DOE SBIR/STTR Funding Opportunity Announcement at www.science.doe.gov/sbir.
- **Foresight's Go/NoGo™ Template and Help File:** Tools to conduct your own assessment of your technology's commercial potential.
- **The DOE TAP Discussion Group:** A venue for knowledge sharing and gaining advice from Foresight and the users of the portal.
- **Phyl's Blog:** Phyl Speser is a multiple SBIR award winner, author of the best-selling textbook *The Art & Science of Technology Transfer* (Wiley 2006), a former professor of intellectual property law, and an accomplished deal-maker. Phyl shares tips and tricks of the trade in addition to responding to questions about how to move your technology to market.
- **Tools for Writing a DOE Phase I Proposal:** Guides and tips for general SBIR proposal preparation and how to integrate commercialization into your DOE SBIR Phase I Proposal.

These tools, primers, and other extensive technical assistance are available to help you be successful in your commercialization efforts.

Around the Southern Tier - call number or visit www.amt-mep.org/events.htm for details

- June 18** Business After Hours — Corning Area Chamber — 607-936-4686
- June 21** Fall 2009 Jumpstart Application Deadline — www.ccmr.cornell.edu/industry/request
- June 23** Business Roundtable - Service/Utility Businesses — Corning Area Chamber — 607-936-4686
- June 24** Business After Hours — Chenango County Chamber — 607-334-1402
- June 30** Business Roundtable - Professional Partnerships — Corning Area Chamber — 607-936-4686
- July 14** Public Relations 101: Business Must Knows — Corning Area Chamber — 607-936-4686
- July 16** Business After Business Reception — Chemung Chamber — www.chemungchamber.org
- Aug 11** Human Resources 101 — Corning Area Chamber — 607-936-4686
- Aug 13** 23rd Annual Golf Classic — Otsego County Chamber — 607-432-4500
- Aug 19** Business After Hours — Watkins Glen Area Chamber — 607-535-3003
- Aug 20** Business After Hours — Otsego County Chamber — 607-432-4500
- Aug 20** Business After Hours — Corning Area Chamber — 607-936-4686
- Sept 14** Annual Golf Tournament — Corning Area Chamber — 607-936-4686

Technology Transfer

Technologies of the Week describe inventions offered for license and anonymous requests for technology, distributed through the yet2.com marketplace, that you and your organization may be able to fulfill. Responding to a Tech Need is the first step to

A company is looking for technology solutions enabling a woven or non-woven substrate to contain liquid that can be released by applying pressure, to yield a moist or wet substrate. The solution must be a scalable technology with demonstrated proof of concept. The technology solution must be able to incorporate sufficient liquid content in the substrate so that when pressure is applied, approximately 75 percent of that substrate unit becomes moist.

link.abpi.net/l.php?20090409A3

An established clean technology in energy efficiency, energy generation, or energy process abatement and operations is sought. A company is looking for opportunities in clean technology that are complementary to its own value proposition. The solution should be cost-effective and offer a reduction in emissions. The company seeks technologies that are at the market entry, market volume stage.

link.abpi.net/l.php?20090409A4

A specialty coating technology provides a means to create opalescent photonic crystals in a wide range of colors that impart visual interference effects, when used in multilayer specialty paints, finishes, inks, and similar coatings. The layers have good adhesion to each other. The colors and effects are predictable, even, and stable. The color and effects are determined by the diameter of the mono-dispersed spheres used within the process.

link.abpi.net/l.php?20090414A4

A proven technology produces an injection-molded, tamper-evident plastic lid for a container that can be used in the absence of a foil lid, and yet provides an effective hermetic seal. Even after its initial opening, the lid reseals air- and water-tight. The patent provides protection for claims relating to the lid, as well as for an injection molding process and mold assembly to produce the lid.

link.abpi.net/l.php?20090414A5

Innovative binder solutions for the manufacture of molds and cores used in the production of metal castings is sought. The molding and core making processes demand robust, environmentally-acceptable binder systems with easy breakdown and removal after casting. The solution should be a chemical curing reaction, not a dehydration process. The curing mechanism should not be dependent on an external heat source and should take place under ambient conditions. It should be a low hazardous material in terms of labeling and occupational exposure limits.

link.abpi.net/l.php?20090430A3

A process to generate sodium hydroxide (caustic) from sodium sulfate and calcium hydroxide is sought. A current process produces tens of tons per day of crystalline sodium sulfate as a byproduct. Due to process requirements there is also a source of calcium hydroxide. Sodium hydroxide should be produced in situ within the confines of the plant. An aqueous product from a process with the lower limit being about 8 percent caustic solution with moderate sulfate content would be acceptable. Low calcium

For licensing opportunities through Binghamton University research: research.binghamton.edu/TT/LicensingOpps.htm

For licensing opportunities through Cornell University research: www.cctec.cornell.edu/technology/

SBIR/STTR INFORMATION: www.sbir.gov/solicitations/index.htm

Funding Opportunities: www.nystar.state.ny.us/fon/funding.htm

Research News

TRANSISTOR NOISE THEORY FLAWED

Engineers at the National Institute of Standards and Technology (NIST) have discovered a flaw in our understanding of transistor noise that could hinder the creation of more efficient, lower-powered electronic devices like cell phones and pacemakers. The team found evidence that a widely accepted model explaining errors caused by electronic 'noise' in the switches does not fit the facts.

For decades, engineers have largely accepted a theoretical model of the transistor, called the elastic tunneling model, that identifies material defects that can divert the flow of electricity and cause a device to malfunction. The theory predicts that as transistors shrink, the fluctuations should correspondingly increase in frequency. But NIST

scientist Jason Campbell said NIST scientists have shown that even in nanometer-sized transistors, the fluctuation frequency remains the same.

The findings have implications for the low-power transistors now in demand in the latest high-tech consumer technology, such as laptop computers. Campbell said, "The model was a good working theory when transistors were large, but our observations clearly indicate that it's incorrect at the smaller nanoscale regimes where industry is headed. This is a real bottleneck in our development of transistors for low-power applications. We have to understand the problem before we can fix it - and troublingly, we don't know what's actually happening."



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...helping manufacturers and high-tech start-ups achieve and sustain growth, profitability and world-class performance

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- ✓ **SEA (Supplier Excellence Alliance)**
- ✓ **Management Operations Improvements**
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- ✓ **Failure Mode & Effects Analysis**
- ✓ **High-tech Start-up Assistance**
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To subscribe to the AM&T newsletter or to update your mailing address visit:
<http://amt-mep.org/newsletter.htm>



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AM&T is a NYSTAR® designated Regional Technology Development Center for the Southern Tier and is one of nearly 60 MEPs located across the country. AM&T works directly with regional companies to increase their competitiveness and profitability.

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