



## **SME Education Foundation Funding Bolsters Canadian Advanced Manufacturing Education and Workforce Development**

*The SME Education Foundation has funded \$15,000 to SME Toronto Chapter 26 to promote advanced manufacturing careers for Canadian students and assist the Canadian workforce to enhance knowledge and skills.*

**DEARBORN, Mich., TORONTO, Canada,** — A Canadian “Take Back Manufacturing ([TBM](#))” initiative, introduced last fall by the Society of Manufacturing Engineers (SME) Toronto [Chapter 26](#) at the CMTS (Canadian Manufacturing Technology Show), hopes to become the catalyst for next-generation job creation. Endorsing this initiative, the [SME Education Foundation](#) has funded \$15,000 to the SME Toronto chapter to work on developing processes and tools to promote advanced manufacturing engineering careers for Canadian students and assist the Canadian workforce to enhance their knowledge and skills.

A newly-engaged Take Back Manufacturing Forum composed of a broad representation of Canadian technical societies, management associations, trade organizations and educational stakeholders is redefining current perceptions of manufacturing. As an industry, manufacturing needs to be the center for skill and excellence embracing the latest in advanced technologies. The TBM forum is working to secure support for the creation of a highly-educated and highly-trained workforce with world-class skills and experience at all levels.

Canada has never embraced an integrated apprenticeship program. This approach is being totally revisited by the TBM Forum. This needs to range across all levels of skill and professional knowledge from trade technician to post-graduate degrees to professional engineering levels, so that it can embrace the entire technical education spectrum and allow transference and mobility of learning so that manufacturing careers can be efficiently expanded or migrated.

In 2012, TBM will work with local governments on tax, trade and education policies, followed by designing an aggressive plan which will provide industry with a roadmap and tools to create a new and strong infrastructure for career development.

In a global marketplace, collaboration is now critical as government, industry and educators have come to realize their challenges are essentially the same, and solutions for resolving workforce development issues more effective when ideas and approaches are shared. In the United States, business, industry and education collaboration are also steering workforce development.

Says Bart A. Aslin, chief executive officer, SME Education Foundation, “Last fall, we set the course for workforce development with the launch of [PRIME](#) (Partnership Response in Manufacturing Education). The SME Toronto Chapter’s TBM initiative is well-aligned. We have much to share and much to learn but the good news is that now we’re all on the same page.”

Nigel Southway, a manufacturing consultant, engineer and the author of a text book on time-based business productivity improvement is Chair in 2012 for the SME Toronto Chapter. He is adamant about the state of the Canadian manufacturing sectors. “Manufacturing is not going to come back to

North America until we take it back,” says Southway. ‘Our Canadian manufacturing industry has suffered greatly over the past thirty years, all due to our inability to innovate the next generation of Canadian-made products and services. This is mainly the result of an uncontrolled global economy, resultant out-sourcing, an escalated high Canadian dollar, and the apathetic capital and infrastructural investments in Canadian manufacturing. These factors have led to severe job losses at all strata’s of the manufacturing environment.’

According to Statistics Canada, more than 322,000 jobs were lost between 2004 and 2008. In December 2011, manufacturing employment continued to decline, by 7,300 jobs, following losses of 48,000 in October (mostly in Ontario) lost out of a national total of 54,000.

Continuing Southway says, “We are fighting back with our “*Take Back Manufacturing*” initiative. This is about manufacturing in Ontario. Job losses have damaged our prosperity and our ability to balance imports and exports. We need to secure the future of the manufacturing sectors by having one voice and one agenda.”

As a consultant, Southway helped companies relocate product manufacturing to China, but after discussions with business leaders, it is now clear that the argument for outsourcing is no longer obvious or compelling, and especially if Canadian manufacturers undertake more balanced sourcing, and further focus efforts on the use of improved systems and technology.

The Boston Consulting Group (BCG) reports that China is approaching a tipping point where rising wages, high-energy costs, logistics and quality control challenges are shrinking their cost advantage with a projected 3 million jobs coming back by 2015.

The TBM Forum will work to create an education and training infrastructure to support manufacturing when it returns, and is involved through the other TBM forum associations in gathering the support of the Canadian government, industry and educators. As an example, one of the tools the group will provide to industry is a true and current cost analysis of the out-sourcing policy embraced over the past thirty years and no longer relevant.

Canadian industry associations, government agencies, major educational institutions, industry associations, unions and industrial experts that have participated and agree to fully support the initiative include:

**Associations:**

American Society of Mechanical Engineers (ASME), Association of Manufacturing Excellence (AME); Association of Operations Management (APICS); Auto Part Manufacturing Association (APMA); Canadian Manufacturers and Exporters (CME); Canadian Tooling and Machining Association (CTMA); High Performance Consortium (HPC), Ontario Power Generation (OPG); Ontario Society of Professional Engineers (OSPE); Professional Engineers Ontario (PEO); Society of Auto and Aeronautics (SAE), Society of Manufacturing Engineers Canadian Exposition Group, and the Society of Manufacturing Engineers (Toronto).

**Educators:**

Association of Canadian Colleges (ACCC), Canadian Apprenticeship Forum (CAF); Canadian Competition University Forum (CCUF), and Sheridan College.

**Experts:**

Canadian Auto Workers (CAW), High Performance Consortium (HPM), Organization Thought-ware International Inc., (OTI); The Progressive Economics Forum (TPEF), and Re-shore Group USA.

**Media:**

Canadian Plant Magazine, CBC Radio/Canada, and the Globe & Mail.

**Unions:**

Canadian Autoworkers Union (CAW), United Steel Workers (USW)

**Government and Associated Agencies:**

Ontario liberal members of parliament (Industry Education study group), Ontario NDP members of parliament, and the York Municipality Economic and Innovation Development.

**About SME:**

The [Society of Manufacturing Engineers](#) is the premier source for manufacturing knowledge, education and networking. Through its many programs, events, magazines, publications and online training division, [Tooling U](#), SME connects manufacturing practitioners to each other, to the latest technologies and to the most up-to-date manufacturing processes. SME has members around the world and is supported by a network of chapters and technical communities. A 501(c)3 organizations, SME is a leader in manufacturing workforce development issues, working with industry, academic and government partners to support the current and future skilled workforce.

**About SME Toronto Chapter 26:**

The Society of Manufacturing Engineers (SME) [Toronto Chapter 26](#) was founded in 1939 and is one of the organization's oldest chapters. Today it provides its nearly 700 members in the metro and surrounding Toronto communities and a further 300 members in Canada's provinces, as well as new SME Student Chapters, with opportunities for education, communication and information-sharing through its workshops, plant tours, presentations, networking and social events. Visit <http://chapters.sme.org/026/>

**About SME Education Foundation Scholarships:**

Since 1998, the SME Education Foundation has provided over \$5.3 million dollars in financial aid through Foundation awards scholarships to graduating high school seniors, current undergraduates and masters or doctoral degree students pursuing degrees in manufacturing and related fields at two-year and four-year colleges. The SME Education Foundation is currently accepting scholarship applications for the academic school year 2012/2013. For more information about SME Education Foundation scholarships and how to apply, visit <http://www.smeef.org/Scholarships/index.php>.

**About the SME Education Foundation:**

The SME Education Foundation is committed to inspiring, supporting and preparing the next generation of manufacturing engineers and technologists in the advancement of manufacturing education. Created by the Society of Manufacturing Engineers in 1979, the SME Education Foundation has provided more than \$31 million since 1980 in grants, scholarships and awards through its partnerships with corporations, organizations, foundations, and individual donors. Visit the SME Education Foundation at [www.smeef.org](http://www.smeef.org). Also visit CareerMe.org for information on advanced manufacturing visit [www.CareerMe.org](http://www.CareerMe.org) and our award-winning web site for young people, [www.ManufacturingisCool.com](http://www.ManufacturingisCool.com)

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