

**WISCONSIN
PRINTING CLUSTER COUNCIL**

INITIATIVES FOR GROWTH

**Submitted to:
Wisconsin Economic Summit III
9/26/02**

Introduction: Growth Needed

With high-pay jobs, several market-leading companies, significant private sector R&D, and a steady supply of skilled workers from technical and baccalaureate colleges, the Printing Cluster is well positioned to continue as a major driver of the Wisconsin economy.

A Printing Cluster Council was inaugurated on September 26 to draft initiatives to support and stimulate growth in the production and distribution of graphic products. Ink-on-paper is still a major part of the printing industry, but it has expanded to encompass a wide variety of processes and services that disseminate information in a wide variety of formats. It has become a digitized business, a thoroughly knowledge-based industry.

The Printing Cluster suffered erosion in the 2000-2001 recession, dropping from 1246 firms in 1998 to 1141 in 2001. However, employment grew in those firms by several thousand jobs to 43,300 employees from 38,600 in 1998.

The Council's goal is for Wisconsin to gain added strength as one of the leading states in the nation for printing.

The state's printing sector is largely located in a reverse L-shaped pattern across southern and eastern Wisconsin from Madison to Milwaukee to Green Bay. It ranges from Quad/Graphics, a market-leading company with 11,500 employees, to small shops with only a few. A network of supporting companies, ranging from press makers to ink suppliers, adds thousands more jobs to the economy. The state is well represented in the six major sectors of printing: lithography, letter press, flexography, screen printing, rotogravure and digital printing.

This policy paper will lay out an agenda of collaborative initiatives that will create a competitive advantage for the state's printing companies.

Role of New Printing Cluster Council

The new council brings together major stakeholders in the printing industry, including large and medium-sized printers; the trade association, Printing Industry of Wisconsin; educators in the field; vendors; and government leaders. (See Exhibit A for its membership.)

This collaborative body of leaders in the public and private sectors will bring collective clout to the implementation of the council's initiatives. Leaders at the top of the industry, state government, the University of Wisconsin and the Wisconsin Technical College System have soundly endorsed the cluster concept and its approach of bringing high value-added, specialized services to the clusters.

The council will meet several times a year to create, develop and monitor its set of initiatives.

Other councils will be formed in the state's other ten knowledge-based clusters to do similar work. Some of the initiatives from the other clusters will overlap and become common cross-cluster agenda items.

Strategic Thinking Process

To develop the enclosed strategic plan for the printing industry, the council met at the new Printing and Graphic Design Center at Waukesha County Technical College in Pewaukee for a half-day of strategic thinking.

The planning group used Prof. Michael Porter's nine critical success factors for a cluster as a framework for analysis. A gap analysis was performed on each of the nine factors on a scale of 1 to 10, with 10 being the highest score. Where there was a significant gap below the desired state of 10, a dialog ensued to set out measures to improve the environment for the industry.

Gap Analysis for Wisconsin Printing

The matrix of scores across the nine factors resulted in an average of 7.03. Overall, it indicated a positive environment for printing in the state. But, as indicated by the analysis shown, it pointed to necessary improvements.

Gap Analysis Printing Industry Cluster Initiative September 26, 2002	
Need	Rank
Start-up Capital	5
Research and Development Public (0) Private (8)	4
Skilled Labor	7.5
Education/Training	8
Infrastructure Bandwidth (9) Roads (9) Airports (8) Utilities (5)	7.75
Market Leading Companies	10
Entrepreneurial Climate	6
Business Climate	6
Quality of Life	9

The biggest strengths of the cluster in Wisconsin are the presence of market-leading companies like Quad/Graphics and Banta (10), quality of life (9), availability of skilled labor (7.5), and education/training capabilities (8).

The biggest needs came in the areas of public R&D, business climate, infrastructure relative to energy, entrepreneurship and availability of capital.

Initiatives to Propel Printing Growth

- I. CREATE PUBLIC SECTOR R&D—Quad/Tech now employs 250 engineers for developing ancillary equipment for enhancing productivity. Quad also makes specialized inks for its business. Serigraph has more than 40 professionals in R&D and Engineering for specialty printing. So, the private side has some strengths. The public sector has no R&D capability, even though six technical colleges and three four-year colleges offer graphic arts degrees.

Recommended Initiative: Since the presence of R&D units is critical for the success of any knowledge-based industry, one of the colleges or universities should establish an R&D capability.

By example, Moraine Park Technical College in West Bend has established a \$12 million Applied Manufacturing Technology Center to offer cutting-edge tool and die and machining methods for the Advanced Manufacturing Cluster. The West Bend center was to serve as a pilot for the other 15 technical colleges, so the precedent is there for a similar facility at another technical college. The Printing and Graphic Design Center, which is staffed by WCTC and UW-Stout, is one logical site for an applied R&D center.

Responsible stakeholders: UW-Stout; WCTC

Recommended Initiative: PIW and its members should lure the R&D operations of printing trade associations to Wisconsin. Those include: the Graphic Arts Technical Foundation lithographic center, now in Sewickley, PA; the Screenprinting & Graphic Imaging Association Technical Foundation, now in Fairfax, VA; and the Flexographic Technical Association, now in Ronkonkoma, NY. These R&D operations could obtain critical mass if combined with a college technical capability and support from private companies in R&D consortiums.

Responsible stakeholders: PIW and its members

- II. LEAD ON ENERGY INFRASTRUCTURE—Some parts of the infrastructure portfolio, as it serves the Printing Cluster, are in good shape. Bandwidth, highways and airports generally are sufficient. But energy needs a high level of attention.

Recommended Initiative: Wisconsin policy leaders need to take the steps necessary to create more generation and transmission capability across the state. The state is facing a 6000 megawatt deficit by 2010 as energy consumption grows by 3% per year. Weaknesses in the state's transmission grid and its limited ability to import power must be addressed by adding transmission lines to and from Illinois and Minnesota, including the proposed Weston-Duluth line.

Responsible stakeholders: Governor, PSC, Legislators, utilities

Recommended Initiative: Nuclear power generation should be re-examined as a source of inexpensive, low polluting energy. Strides in nuclear energy dictate its consideration as a source of power.

Responsible stakeholders: PSC, utilities

Recommended Initiative: Add cross-border gas lines to Illinois. The printing industry uses large amounts of natural gas, much of it for curing in heat-set lithography. The present gas transmission into the state is limited. Added lines would enhance capacity and competition.

Responsible stakeholders: Governor, PSC, utilities, Legislators

Recommended Initiative: Follow through on proposals to upgrade Mitchell International Airport and regional airports in Dane, Washington and Waukesha counties. While the printing business has become a digital business, meaning that much information that used to be transported in physical form (films, proofs, artwork) now moves electronically via the Internet, dedicated data lines and satellites, airports still play an important role in moving customers, vendors, fast-moving prototypes and JIT parts. The print world is now national and global. Modern airports are needed to accommodate jet traffic, both commercial at Mitchell and charter or private at the regional fields.

Responsible stakeholders: DOT, local governments

- III. **CHANGE TO COLLABORATIVE REGULATION FROM COMMAND AND CONTROL**—In terms of business climate, as with all clusters in Wisconsin, state and local taxes need to come down as a percentage of personal income. Wisconsin must get out of the “Big 10” for taxes. Increasing income through stimulation of clusters will take care of part of that high ranking. The biggest problem for printers in Wisconsin is the micro regulation at three levels: plants, presses and inks. That adds up to a huge extra and unnecessary cost of business in the state. Collaborative approaches would lower pollution and costs.

Responsible stakeholders: Governor, Legislators

Recommended Initiative: The “Green Tier” regulatory philosophy, which encourages collaboration between industry and government, should be adopted. Emphasis on mutually derived technologies and practices will result in lower emissions than standards under command and control require. Eliminating mountains of paper work, which often has no effect on pollution streams, will lower costs to business and government. The saved monies can be put to more effective pollution reduction methods and equipment and will make Wisconsin printers more competitive. While the Wisconsin DNR has been more flexible in recent years, there is much room for improved, collaborative regulation. Permitting still takes too long, costs too much on both sides and produces too few results. A biofilter at Serigraph, a jointly funded project by the state

and the company, is an example of collaborative regulation. The filter removes more than 90% of the pollutants from one plant's printing processes.

Responsible stakeholders: DNR, Governor, PIW, Legislators

Recommended Initiative: Set time limits for approval of equipment and ink permits. Good actors among the state's printing companies should be offered relaxation from individual permits. Audits of plants can always be used at any time to make sure plants remain in compliance with standards.

Responsible stakeholders: DNR, PIW

Recommended Initiative: Engage the University of Wisconsin's resources to understand and improve air quality in the Milwaukee metro area. Its designation as a non-attainment area for federal air standards results in regulations that severely limit the expansion of printing in the six-county metro area. Good science has been sadly lacking to identify the sources of VOCs (volatile organic compounds) and methods of reduction. Air around Milwaukee has improved over the last decade, but university scientists could advance the progress if they engaged the issues. This is an arena where public-private collaboration could improve public health and business health.

Responsible stakeholders: UW, DNR

IV. **ENHANCE STATE'S EXCELLENT EDUCATION AND TRAINING OFFERINGS**—

Six technical colleges offer two-year associate degrees in printing and three four-year colleges (UW-Stout, UW-Platteville and Carroll) offer baccalaureates. In addition, there is a high school youth apprenticeship program that feeds into the two- and four-year programs. It's called 2+2+2, or seamless education. All the programs encourage mature workers to upgrade their skills for the graphic arts industry. Long term, the state will face a shortage of skilled workers, such as press and bindery operators, and these courses help to fill the gap. The larger printing firms offer their own in-house training, in concert with outside college courses. WCTC's new Printing and Design Center is an example of "seamless education" that merits continued support and expansion. Some education needs remain.

Recommended Initiative: Complete the new program between WCTC and Marquette University to train mechanical and electrical engineers who have a specialized expertise in printing. Consider expanding the program to chemists and chemical engineers. These disciplines are needed in R&D operations like those at Quad/Graphics.

Responsible stakeholders: MU, WCTC

Recommended Initiative: Market the many positives of the state's printing cluster to high school students, many of whom are taking courses in the graphic arts. Good jobs in a fast-moving, high-tech clusters, coupled with easy entry via strong schools,

should be very marketable to young people looking for prosperous careers. Printing is such a career.

Responsible stakeholders: PIW, WTCS

Recommended Initiative: Convert Carroll College's two degrees in Graphic Design and Graphic Communications to a Printing Management baccalaureate degree. Industry should support the Carroll program and others with internships, scholarships and job opportunities.

EXHIBIT A

Printing Cluster Council Members

Carol Brown, President, Waukesha County Technical College
Timothy Burton, President, Burton & Mayer Inc.
Chris Carpenter, President/CEO, Royle Communication Group
Steve Elbing, CEO/Chairman, Service Litho-Print Inc.
Lt. Gov. Margaret Farrow
Dean Flowers, Associate Dean, Waukesha County Technical College
Jac Garner, President, Webcrafters, Inc.
Mark Kannenberg, President, RBP
Beth Lindsay, SVP-Human Resources, Perry Judd's Inc.
Ron Musil, Banta Book Group
Don Nichols, Director, La Follette School of Public Affairs, UW-Madison
N. Niall Power, President, Printing Industries of Wisconsin, Inc.
Tom Quadracci, President, Quad/Graphics Inc.
Laurence Schoenberger, EVP-Student & Instructional Services, Waukesha
County Technical College
Donald Schroeder, President/CEO, Sells Printing Co. LLC
Terry Shelton, Outreach Director, La Follette School of Public Affairs,
UW-Madison
Chancellor Charles Sorensen, UW-Stout
John B. Torinus Jr., CEO, Serigraph Inc.
Donald Treis, CEO, Arandell Corp.
Janet Washbon, Bureau Director, Policy & Government Relations,
Wisconsin Technical College System
Jim Wiseman, VP-Enrollment, Carroll College
Christopher Yatchak, President, Graphic Communication International
Union