

Dakota Manufacturing Initiative Status Report

SUBMITTED TO:

Legislative Council Economic Development Committee
State Capitol
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Section 50 of Senate Bill 2018 asked for a status report as follows:

SECTION 50. DAKOTA MANUFACTURING INITIATIVE - REPORT TO LEGISLATIVE COUNCIL. During the 2005-06 interim, the commissioner of commerce shall report to the legislative council on the status of the Dakota manufacturing initiative. This report must include information regarding how the initiative has been established and regarding the activities of the Dakota manufacturing extension partnership, incorporated. The commissioner shall include in the report whether the state should continue this initiative or whether the goal of assisting manufacturers would be better served by alternative means. The commissioner shall report whether there are potential changes that could be made to improve the networking of manufacturing businesses and other suppliers in this state.

Introduction to Dakota Manufacturing Extension Partnership (Dakota MEP)

The Dakota MEP is part of a unique public / private partnership that provides local access to a national resource including 59 MEP Centers, 350 field offices, more than 2,000 MEP business and manufacturing professionals and more than 3,500 affiliated service providers. See the Dakota MEP brochure for more information.

In addition, the national MEP program is helping to support the overall development of manufacturing in the U.S. through partnerships with many federal agencies including these departments; Commerce, Defense, Energy, Environmental Protection, Homeland Security and Labor.

Additional state MEP program initiatives also increase the value of the national MEP resource to manufacturers. Initiatives can be found in energy management, developing financial resources, protecting the environment, building a workforce, supporting innovation, improving processes, finding new markets and ensuring quality.

Background

The Dakota Manufacturing Initiative is embodied in an agreement between the Department of Commerce and the Dakota Manufacturing Extension Partnership - agreed to on September 7, 2005. The work will continue through the end of the biennium (6/30/07).

State support for this Initiative was reduced from the \$165,000 (originally requested by the Dakota MEP Board of Directors and provided for in the original legislation this past legislative session) to \$100,000 as provided for by the Department of Commerce. Financial support is being used in these two areas;

- **Membership** - Complete a feasibility of how manufacturers can best benefit through a membership and what TD MEP will need to do to be of value in developing and supporting that membership. The feasibility will ensure that the potential membership complements existing national, regional and local manufacturing associations / memberships. Approval of that feasibility and further execution is subject to approval by the TD MEP Board of Directors.

- **OEM / Supplier Development** - Implement a consortium of major manufacturers – original equipment manufacturers (OEMs) - who will be committed to improving the quality of the existing supply base and that believe this consortium can be a tool to enhance the long-term collaborative relationships with supplier companies. A framework for developing the consortium will provide for the roles and expectations of the participating OEM companies, the supplier companies and TD MEP. The consortium will also seek to build on and collaborate with other successful OEM / supplier initiatives in the country. The consortium may also be designed to anchor the overall development of a manufacturing membership in the future.

Current Status

How the initiative has been established? (see below)

What have been the activities of the Dakota MEP? (see below)

Membership

FYI Political advocacy is a major reason used by some organizations in order to develop and support a membership. Whether the Dakota MEP should involve itself with political advocacy was addressed by the current Dakota MEP Board of Directors in 2005. They were asked by a North Dakota lobbyist to provide a supportive position on the Central America Free Trade Agreement (CAFTA) in Congress. The Board declined to provide a position (supportive or non-supportive) on CAFTA as it recognized that Dakota MEP is first and foremost a service organization with specific measures and outcomes that focus on building the competitiveness, productivity and value of the manufacturing industry.

From Dakota MEP Progress Report Dated 9/20/05

■ At a Dakota MEP Board of Directors meeting (5/12/05), an overview on approaching the feasibility of membership was provided and discussed. The framework puts a high emphasis on identifying and potentially addressing unmet needs that have significant value to manufacturers. It also addresses identifying what is already being provided and by whom so as to avoid duplication. A number of inputs into this discovery have already been informally provided.

■ To assist TD MEP in carrying out the feasibility, a team of master's level graduate students is being provided by the University of Mary. Their work began on 10/9/05 and will be coordinated with the Dakota MEP. Upon completion, their work will be presented to the TD MEP Board of Directors in Quarter 1, 2006.

From Dakota MEP Progress Report Dated 3/20/06

■ Under the guidance of Wayne Maruska, Graduate Program Advisor and Clark Johnson, Facilitator of the University of Mary Masters in Business Administration, a feasibility study on developing a membership was complete in January, 2006. Over 2,000 hours of graduate student time was devoted to this study – it became the

master's thesis for fifteen students. These students represent a strong diversity of business backgrounds and experiences. The feasibility study reports were prepared at no cost by Basin Electric Cooperative, Bismarck and distributed to each of the Directors of the Dakota MEP Board in advance of their January, 2006 Board meeting.

The graduate student team provided a presentation on the feasibility to the Dakota MEP Board of Directors on January 19th, 2006. As a result of this feasibility study (from the minutes of The Dakota MEP Board meeting),

“Directors advised Randy (Dakota MEP Director) to focus Dakota MEP staff resources on our core business at this time. Although there are some membership concepts that may be very advantageous for member companies and to Dakota MEP, the Board will discuss the concept of a membership organization at a later date. Director Steve Suttle made a motion, “The Dakota MEP will not sponsor the creation of a membership organization at this point in time.” Director Bob Wilmot seconds the motion and the motion was carried by unanimous vote of the Directors.”

Ultimately, when providing a membership is appropriate, it will be reflected in a business development plan for TD MEP which the Board of Directors will provide formal approval to.

From Dakota MEP Progress Report Dated 7/9/06

Rather than completely discount the feasibility study, there were a number of very good recommendations that may further develop manufacturers while: (1) addressing unmet needs that would be valued by manufactures and (2) helping the Dakota MEP further develop its “core business”. Without a formal commitment to supporting a membership organization, these recommendations are currently being worked on by the Dakota MEP. Here are examples of these initiatives:

1. Building the Future Manufacturing Workforce

Helping manufacturers develop a manufacturing workforce is the number one need of manufacturing companies nationally and is one of the major constraints holding back the development of manufacturing in North Dakota. Unfortunately the issue is only addressed by individual manufacturers – not by manufacturers working on behalf of the manufacturing industry. From early discovery work by the Dakota MEP it appears that overall manufacturing industry commitment to building the current and future workforce may definitely be an area where a membership of manufacturing companies is needed.

In order to further explore, with the support of the ND Governor's Office, the concept of a Manufacturing Boot CampTM has been introduced to North Dakota. The Manufacturing Boot Camp was included by the Dakota MEP in a tri-state proposal to the US Department of Labor that received the approval of the Governors of Minnesota, North Dakota and South Dakota in December of 2005.

The first meeting of manufacturing leaders was held on 3/21 in Bismarck and also included potential service providers who could help Dakota MEP make the Boot Camp successful. The objective of this meeting was to determine how this program resonates with ND manufacturers and potential partner organizations.

The Boot Camp™ – already successfully developed and implemented by manufacturers in coordination with another MEP is designed to; (1) help the manufacturing industry introduce itself to a potential, new workforce, (2) address basic skills development, (3) introduce new workers to modern day manufacturing concepts and (4) place these qualified workers in internships and later full time positions with manufacturers. It requires an outcome based approach led by an independent organization that is able to successfully facilitate not only manufacturers but a number of service providers.

Following the 3/21 meeting, an Advisory Group of manufacturers was formed who met during May to further the concept of the Boot Camp. This Group has since addressed three key questions; (1) Should Boot Camp pilot projects begin in ND? (2) Is an overall feasibility required of the manufacturing industry's current and future workforce development needs? and (3) Should the Dakota MEP ramp up in order to support a dedicated group of manufacturing professionals who have a passion for further developing the manufacturing industry workforce? Dakota MEP is awaiting approval of federal workforce funds from the Governor's Office in order to move forward on work already started to tailor a Boot Camp pilot to ND.

2. North Dakota – “Where Manufacturing Matters”

An unmet need that many manufacturers have identified is the need to keep more current on major manufacturing issues, trends and improvements as well as to have networking opportunities. In addition the feasibility study recognized the importance of larger manufacturers taking the lead in further supporting the overall manufacturing industry in the state. They are the “anchor tenants” in any future manufacturing membership.

To further address the above, the Dakota MEP is planning for the state's first “Where Manufacturing Matters” event. This event will be held on November 20th and 21st in Fargo. The event will further clarify how well manufacturers are willing to work together to support their industry. “Where Manufacturing Matters” will be designed to;

1. Provide value to manufacturers,
2. Promote manufacturing and its importance to this region and
3. Provide manufacturers with an interactive and enjoyable experience (including networking).

There are already examples of successful MEP led manufacturing events in other states including Montana.

The event will be divided into several tracks including helping manufacturers with Growth, Innovation & Technology, Process Improvement, Supply Chain Innovation (see OEM / Supplier Development below) & Workforce Development. A Future of Manufacturing track may also be added in order to appeal to a variety of manufacturing leaders as well as other leaders.

Currently, Dakota MEP is planning for 50 to 100 companies to participate with potentially 200 to 300 attendees. Major company decision makers will be targeted (i.e. CEO's, CFO's, COO's, CIO's, Plant Managers, Directors of Engineering, Sales Managers, Marketing Directors, HR Managers, etc.)

OEM / Supplier Development

From Dakota MEP Progress Report Dated 9/20/05

■ Through its affiliation with the national MEP and its membership with the North Central Coalition (NCC) of MEP Centers, Dakota MEP has been learning about several models for OEM's and their suppliers to work more closely together.

■ Dakota MEP has endorsed an OEM / Supplier development model piloted by Wisconsin MEP and adopted by NCC. This model has been presented to the Dakota MEP Board of Directors. The model has been pioneered by John Deere, Harley Davidson and Oshkosh Truck and by many of their supplier companies. The three OEM's have identified supplier companies in the upper Midwest (including North Dakota) that they would like to include in a long term supplier development partnership that will include Dakota MEP. See the attached December 1st, 2005 Industry Week Editor's Page – Reinvesting in U.S. Based Production.

■ Training on the supplier development model (described above) has already been completed by Dakota MEP. Pilot supplier development projects may be beginning in Quarter 4 of 2005.

■ With its previous work with IR / Bobcat as a base, Dakota MEP has introduced the OEM / Supplier development model to North Dakota's largest OEM. IR / Bobcat have been very pleased by the partnership approach including the OEM, the supplier and the MEP. We look forward to potentially pilot this model with IR / Bobcat in the future.

From Dakota MEP Progress Report Dated 3/20/06

■ Phase 1 work with four North Dakota supplier companies participating in the OEM / Supplier development model has begun. Phase 1 work focuses on helping suppliers determine the current state of their Manufacturing Critical Path Time (MCT) (the time – and processes - from placement of an order by a customer to when the order is received by the customer) and determining what the future state of the MCT can be in the future.

■ The development model also expanded to include Ingersoll Rand / Bobcat's commitment in Quarter 1. In February, 2006 a "baton pass meeting" was held in Fargo

that included Bobcat, WMEP (Wisconsin MEP), Dakota MEP and several supplier companies.

- The OEM / Supplier development model was introduced to two North Dakota OEM manufacturers in February and also to a meeting of public sector stakeholders – including the North Dakota Department of Commerce.

- North Dakota legislators on the Economic Development Committee (involved with the Business Congress meeting in 2005 as well as those involved in 2006) were sent introductory info on the OEM / Supplier development model and an update on the progress made.

From Dakota MEP Progress Report Dated 7/9/06

- Phase 1 work with four North Dakota supplier companies participating in the OEM / Supplier development model has been completed. These are suppliers to John Deere and Harley Davidson.

- Eleven Bobcat supplier companies have completed Phase 1 work in the upper Midwest – three of those companies in North Dakota. Ingersoll Rand has since explored this model and may include this model and measure (MCT) as key to developing Ingersoll Rand supply chains.

- Other states are beginning to develop OEM / Supplier development initiatives with support available to spur engagement in the model by both OEM and Supplier companies. As North Dakota does not have a large number of OEM companies, it may also be possible to construct a program with emphasis on Supplier improvement before being identified for those improvements by the OEM.

- Further developing the OEM / Supplier development initiative will be included as part of the Where Manufacturing Matters event in Fargo, November 20th & 21st, 2006.

Should this initiative be continued or would manufacturers be better served by alternative means?

Membership

Yes, a membership of collaboration to address key manufacturing issues, needs and opportunities should be supported by the State of North Dakota through the Dakota MEP. However the Dakota MEP should not (at this time) support an independent manufacturing association but rather focuses on an acceleration of the mission and scope of the MEP in North Dakota.

The Dakota MEP Board deliberated on the fact that there are already hundreds of business and manufacturing associations, chambers, roundtables and professional organizations to belong to. They believe that the Dakota MEP should not become diluted by trying to maintain a membership association but rather should build on its

strengths and bring those of other MEP Centers and the MEP national system to the North Dakota manufacturing industry.

An example of how a “membership” can still be supported as part of the MEP mission and yet that can help address an unmet need was the introduction of the Manufacturing Boot Camp to manufacturers earlier this year. That introduction proved that there are definitely manufacturers willing to collaborate for the overall benefit of their industry – not just for the benefit of their own companies. These are the types of contributions to the greater good that the Dakota MEP is able to seek out and can sustain with the leadership and support of manufacturers. Their “membership” is one of service – service which ultimately benefits their industry first and their companies second.

As discussed earlier, building a manufacturing workforce is at the top of the list or near the top of the list for continuing to have a strong manufacturing industry. If the Dakota MEP only focused on building a membership of manufacturers committed to building the industry worker pipeline in the future it will have provided a major benefit to the State of North Dakota. The Governor’s Office has already indicated the same to a group the Dakota MEP has already brought together.

This facilitation of a manufacturing membership committed to address key issues, needs and opportunities also meshes well with a national MEP system that is carrying out a similar strategy of outcome based partnerships within Communities of Practice. Examples of these current Communities include; Aerospace, Manufacturing Growth Strategies, Gulf Coast Hurricane, Manufacturing Innovation & Technology Deployment, Lean Enterprise, RFID, Supply Chains and Workforce Development.

These Communities - established for the betterment of manufacturing - can be augmented at a state level by the manufacturing industry working with the Dakota MEP as well as by partners who are aligned with the Dakota MEP.

OEM / Supplier Development

Yes, a strategy should be developed to further the success that has been started this biennium of North Dakota’s original equipment manufacturers and their supplier companies. Further the initiative should be extended to assist suppliers who are seeking to strengthen their own “lean-ness”. The foundational work for the strategies has been provided by key OEM companies like John Deere, Harley Davison, Oshkosh Truck and now Ingersoll Rand / Bobcat.

There is no organization in a better position to further OEM / Supplier Development nationally than the Manufacturing Extension Partnership as a non-profit organization dedicated to objective outcomes and with over 800 practitioners who work daily on helping manufacturers with “lean-ness”.

The State of Wisconsin, other states (including North Dakota) and the rest of the country are taking note that they can accelerate the acceptance of these initiatives with manufacturers of all sizes.

In both cases above, Dakota MEP believes that additional State of North Dakota support can be further leveraged by additional public and private sector support. This support is developing in new initiatives the national MEP system and other state MEP programs are supporting.

Potential changes that could be made to improve the networking of manufacturing businesses and other suppliers in this state

Increase the State of North Dakota support for the Dakota MEP beyond the current baseline amount (\$475,000 per year) that matches the federal MEP level of support by an additional \$500,000 per year (or \$1,000,000) for the biennium. This will allow it to better participate in other national initiatives / partnerships as being developed by the national MEP as well as in other state / regional initiatives as being developed by other MEP Centers in the system.

With supportive manufacturers representing the manufacturing industry, the Dakota MEP with appropriate partners can better address critical needs in these areas; (1) building the manufacturing industry workforce pipeline, (2) introducing innovation development and technology deployment to manufacturers throughout the state, (3) provide greater strength and support in collaboration with state / local financial resources and economic development to further manufacturers growth plans, (4) strengthen the deployment of Lean Enterprise services to manufacturers statewide and (5) further develop supplier capacity statewide in order to further maximize their capabilities in working with existing and/or new OEM's as well as expanding their business with additional global and national customers.

In addition to the above, in order to maximize the ability of the manufacturing industry to continue it's growth in North Dakota as well as to leverage public sector resources, the Dakota MEP suggests that all major programs designed to assist manufacturers and that receive support from the State of North Dakota seek to develop effective, outcome based partnerships with the Dakota Manufacturing Extension Partnership. The Dakota MEP – as well as the national MEP system – is taking a leadership role in developing outcome based partnerships focused on outcomes that help manufacturers become more competitive, productive and profitable. It's federal / state / private sector partnership represented by the MEP is one of the strongest in the country and is supported by a measurement system dedicated to outcomes.



[Home](#) : [Operations](#) : Editor's Page -- Reinvesting In U.S.-Based Production

Editor's Page -- Reinvesting In U.S.-Based Production

A Wisconsin consortium demonstrates a win-win way to address challenges confronting U.S. manufacturers.

Thursday, December 01, 2005

By Patricia Panchak

It's no secret that suppliers and smaller manufacturers have borne the brunt of globalization's less positive results, while the mighty OEMs have leveraged size, strength and global reach to reap the benefits. Indeed, it's this reality that has exacerbated an already uneasy alliance between OEMs and their suppliers, causing a rift that threatens to undermine U.S. manufacturing pre-eminence. Already calls for damaging protectionist policies are making headway among some public-policy makers, to counter what many see as the only alternative: the expansion of unfettered free -- and in many ways, unfair -- trade that threatens to decimate small- and medium-size U.S. manufacturers.

However there's a way to "save" U.S. manufacturing's base of small- and medium-size companies, as well as to strengthen U.S. OEMs, without resorting to protectionist measures. The solution comes straight from the capitalist's playbook even as it builds a private-public partnership much like the highly successful Sematech program that helped U.S. semiconductor manufacturers counter the formidable Japanese challenge in the 1980s.

Sound too good to be true? Take a look at just such an effort in Wisconsin in the industrial heartland. There, executives of three U.S. OEM icons -- John Deere, Harley-Davidson and Oshkosh Truck -- have formed, in partnership with the state's manufacturing extension partnership program, a consortium dedicated to helping their local suppliers succeed. Dubbed the Original Equipment Manufacturers-Supplier Development (OEM-SD) consortium, the group assists the OEMs' suppliers in implementing lean management strategies -- and thus becoming more globally competitive -- by using the MEP system's extensive lean consulting and education services. In the first year, the executives credit the program with helping 16 Wisconsin-based suppliers to reduce lead times by an average of 53%. Now the OEMs are set to test the model in supply chains spanning multiple states and MEP centers.

The philosophy behind the effort doesn't disdain or attempt to eliminate offshore sourcing. Rather it simply recognizes and seeks to capitalize on its limits. What's more, the consortium's approach addresses head-on the conundrum that plagues U.S. OEMs: They need both offshore and local suppliers to effectively compete. To win the global competition to deliver high-volume products at low prices, OEMs must source from low-cost offshore providers. But placing such orders overseas threatens the viability of domestic suppliers, which an OEM needs to win the competition to fill the increasing demand for low-volume, customized products. Offshore sources, as many manufacturers have discovered to their dismay, are often unable to meet the short lead times required to deliver

such products. By helping their local suppliers become more competitive, the OEMs become more competitive, effectively securing the local supply base they need to compete in on-demand production without sacrificing their ability to tap low-cost offshore sources. At the same time, the effort helps make U.S. manufacturing more competitive, maintaining good jobs and generating tax revenue to fuel a strong economy.

The OEM-SD model is a win-win-win way to address the nation's manufacturing challenges. Reasonable people can debate the intensity of the conflict between the small and large manufacturers, and many will debate whether the government should intervene at all. But small- and medium-size manufacturers -- the bedrock upon which U.S. manufacturing strength rests -- are struggling and need help adapting to the fierce global competition. For my money, the OEM-SD approach is a sound strategy and a reasonable public investment. OEM executives and public-policy makers should take note.

Patricia Panchak is IW's editor-in-chief. She is based in Cleveland.

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