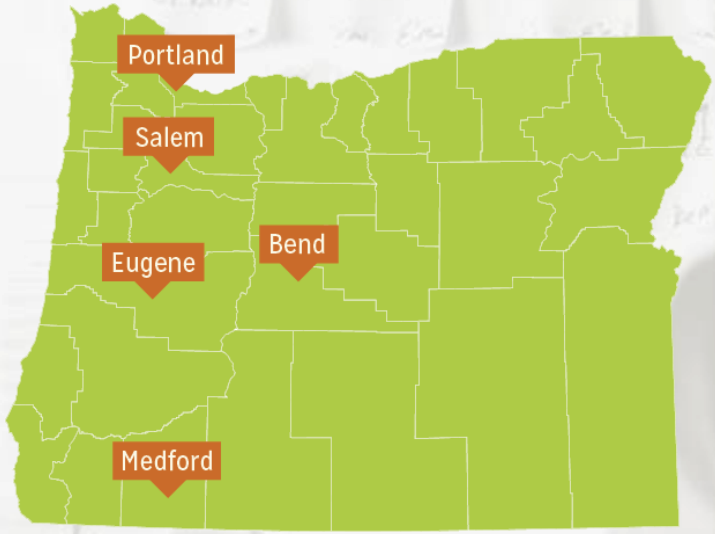
Forge New Possibilities for Success

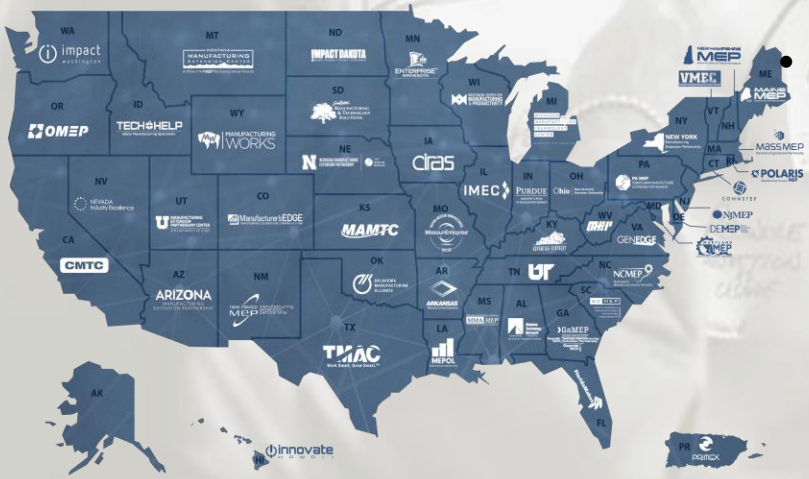
REAL SOLUTIONS FOR MANUFACTURERS

OMEP

Who Is OMEP?

The Oregon Manufacturing Extension Partnership (OMEP) is a Private-Public nonprofit Management Consulting firm funded by federal, state and client funds established in 1996 to provide services that help small and medium manufacturers to improve competitiveness in the global market.





Federally funded under the Department of Commerce, OMEP is part of a national network of Manufacturing Extension Partnerships in every state of the U.S. As part of the National Institute of Standards and Technology (NIST), MEP provides technical support to manufactures in Manufacturing Operations, Business Financials and Strategy, and Workforce Solutions.

Mission

OMEP works side by side with Oregon manufacturers to help build successful businesses

SIDE BY SIDE

SUCCESSFUL BUSINESSES

OMEP's services are rooted in continuous improvement, executed with care, and designed to nurture prosperous manufacturing businesses. Your success is our legacy.

MANUFACTURING OPERATIONS

LEAN MANUFACTURING & CONTINUOUS IMPROVEMENT
Process Flow Design
Quality Systems
Inventory Management Systems
Supply Chain Management & Logistics
Energy Management

MANUFACTURING ENGINEERING
Plant & Facility Layout
Equipment Selection & Design
Preventive & Predictive Maintenance
Tooling & Fixture Design

TECHNOLOGY SOLUTIONS
ERP Selection & Implementation
Robotics & Automation
Smart Factory & IoT Device Integration
Data Visualization & Intelligence Systems
Augmented & Virtual Reality
Cyber Security & IT Support

BUSINESS FINANCIALS AND STRATEGY

FINANCIAL UNDERSTANDING
Financials For Decision Making
Product Costing & Margin Analysis
Budgeting & Cash Flow Modeling
Pricing Strategy
Product Management

GROWTH SERVICES
Sales Process Development & Training
Marketing Strategy & Implementation
Lead Generation
Market Research
New Product Development

STRATEGY
Strategic Planning
Strategy Deployment
Business Planning
Ownership Transition Planning

WORKFORCE SOLUTIONS

ORGANIZATIONAL STRUCTURE & ALIGNMENT
Organizational Design
Employee Succession Planning
Change Management

LEADERSHIP & EMPLOYEE DEVELOPMENT
Team & Communication Dynamics
Leadership Training
Management Systems
Conflict Resolution

RECRUITING, ON-BOARDING & TRAINING
Structured On-the-Job Training Programs
Competency Based Pay Systems
Recruitment & On-Boarding Assistance

Measuring OMEP/MEP Success

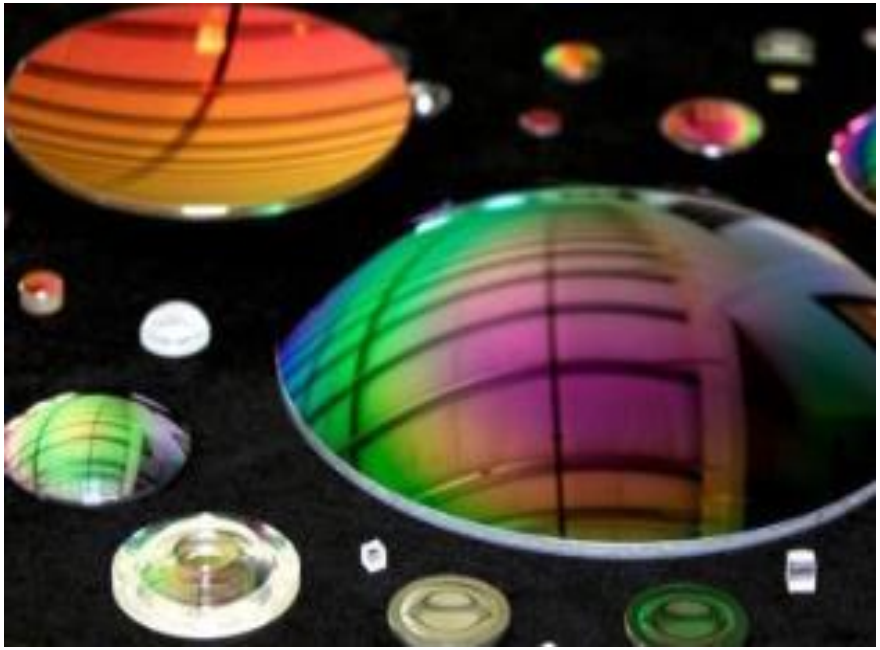
- As an MEP center, OMEP is measured by the real-life results we bring to our clients. An independent third-party contractor, hired by NIST, surveys our clients six months after the end of an engagement to determine the impact on: new and retained jobs, increased and retained sales, cost savings and new business investments.

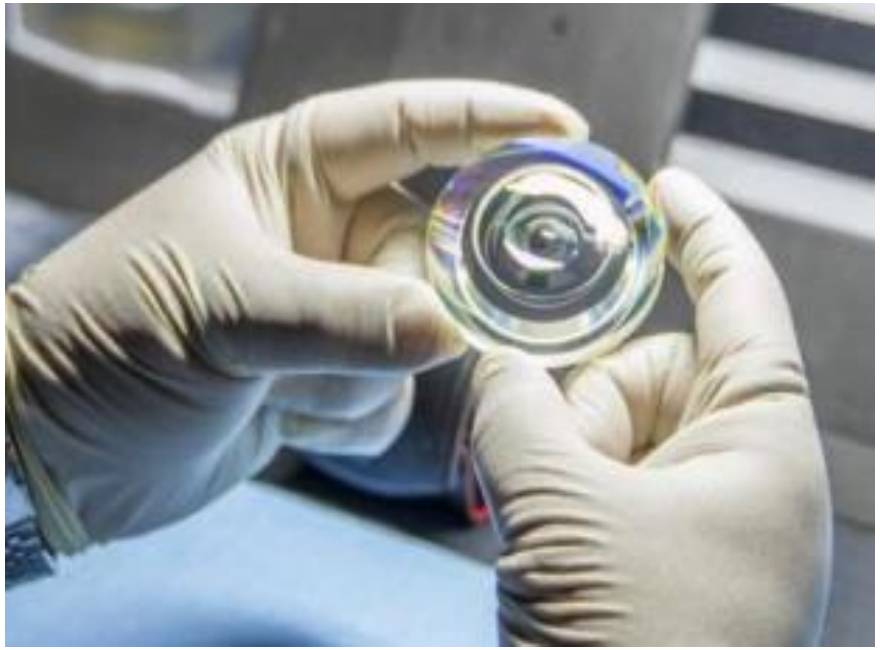
OMEP MPP Projects

REVMEDX™

OMEP MPP Projects

hardinoptical

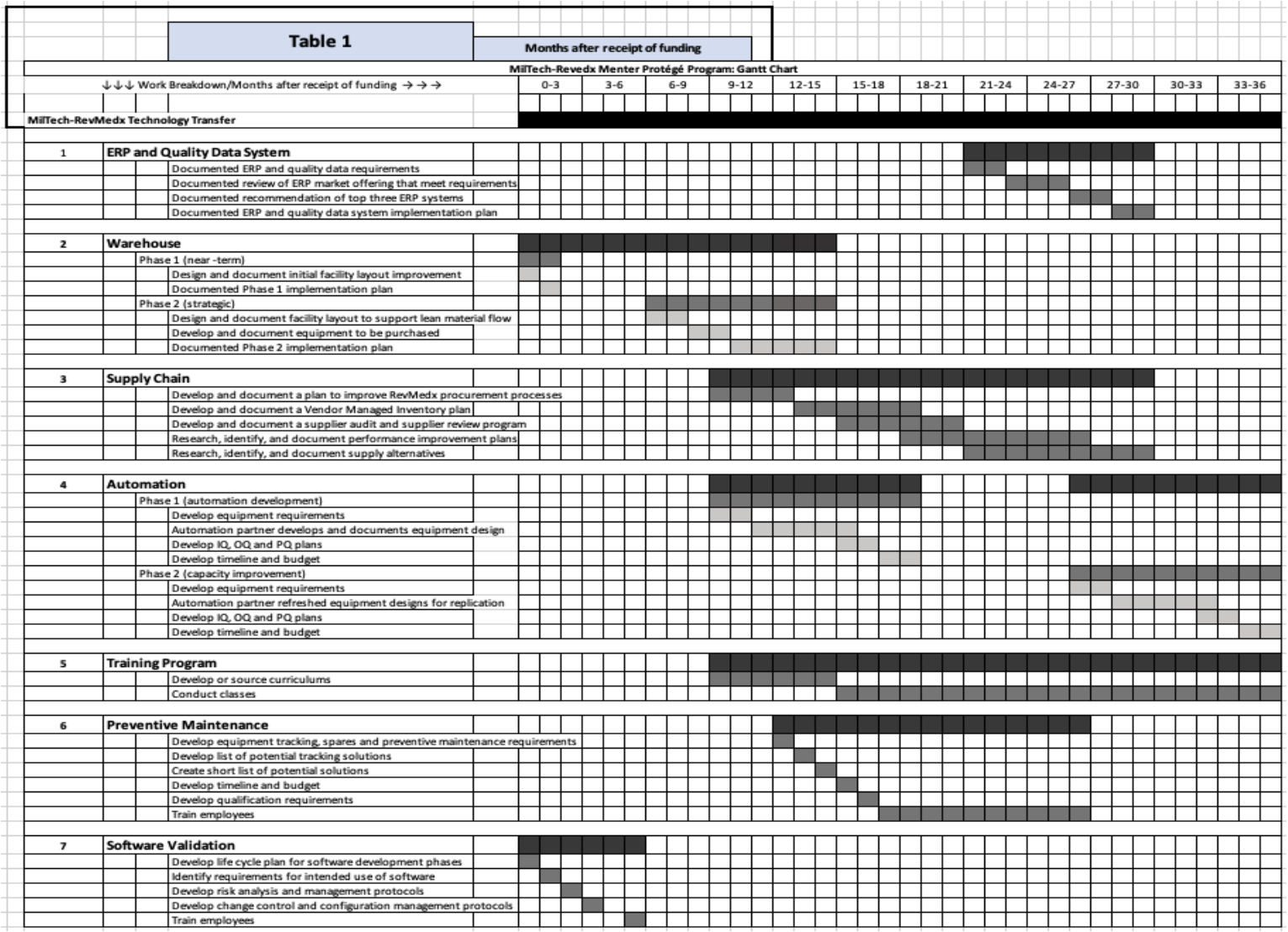




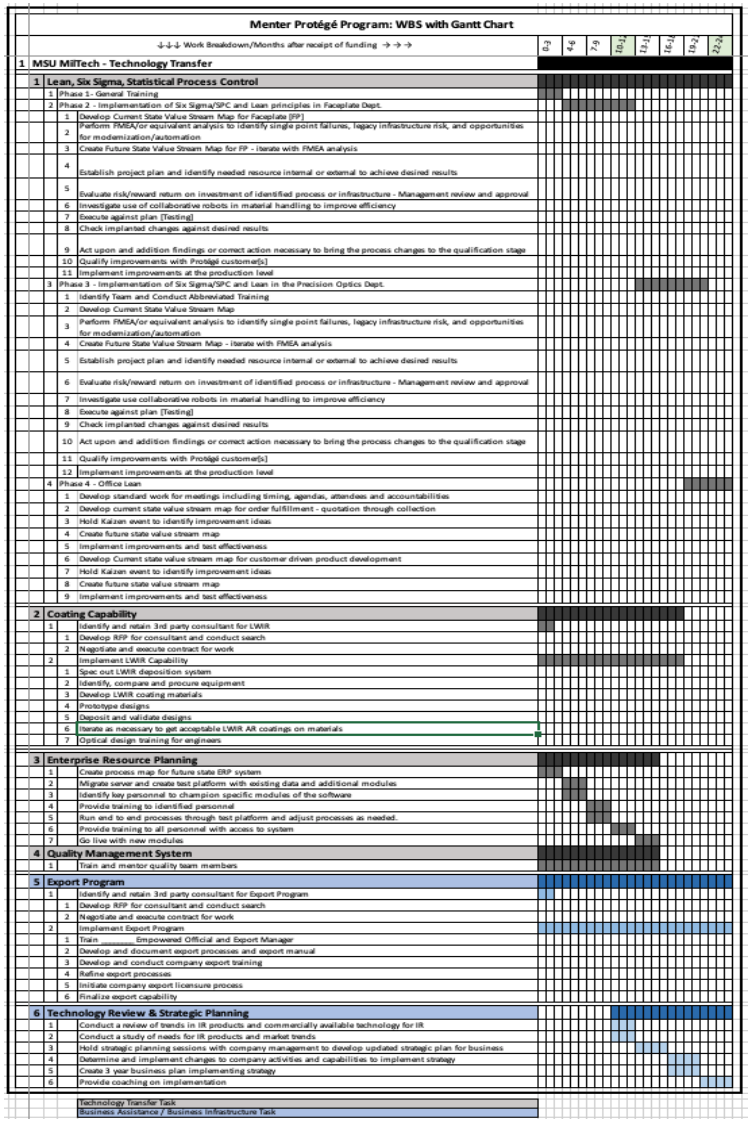
OMEP MPP Projects

CONDUCTIVE COMPOSITES
ENABLING CONDUCTIVITY

OMEP MPP Type of Work



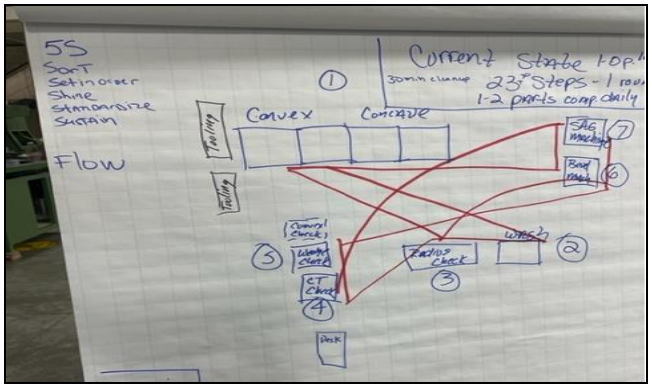
OMEP MPP Type of Work



Protégé: Hardin Optical Company

Mentor: MilTech (Montana State University)

Hardin Optical Company is a manufacturer of precision optics. We are a key sub-contractor for several DoD programs of record where we have been a reliable and consistent supplier of high-quality optical lenses. This vignette highlights a Continuous Improvement initiative to streamline operations and improve efficiency on the Precision Optics line.



Description / Return on Investment:

- Precision Optics (PO) creates high-precision, small quantity orders. One of the most time-consuming portions of PO is the process of continuous polishing and grinding.
- The team mapped out the 7-step process, producing a spaghetti diagram to visualize:
  - Wasted motion
  - Poor process layout
  - Non-sequential workflow
- Leveraging lessons from previous flow improvement projects, and incorporating a facility expansion, the team developed a new area layout and adopted a revised workflow.
- Layout changes in Precision Optics resulted in:
  - **Reduced motion waste by 65%** with a more efficient layout.
  - **Increased throughput capacity 50%** with simplified part processing (flow).
  - **Reduced footprint 25%**, enabling a critical expansion to the High Speed line.
    - Accommodates $1.3M capital purchase.
    - Increases production on highly-sensitive parts.
  - Improved lighting and climate controls **reduce variation errors.**

Before

After

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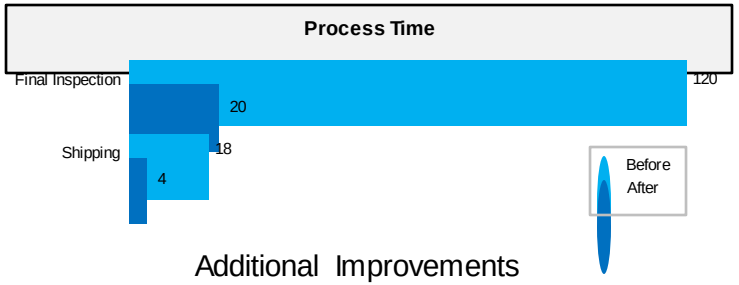
Description / Return on Investment:

- Shipping struggled with cycle time for retrieval of parts and packaging. It took more than 30 minutes to locate parts and packaging. Mismatched boxes were in a far corner, and we struggled deciding which box to use. Low use inventory was in the same location as high use inventory. A new layout focusing on inventory, packaging and flow was developed.
- The team established goals to increase shipping and inventory throughput while improving space utilization for finished and raw materials.
- In process, we looked to:
  - Locate high use inventory closest to the packaging area.
  - Sort, set in order inventory and eliminate obsolete inventory.
  - Locate parts in 30 seconds or less.
  - Improve flow from part retrieval to packaging and shipping.
- Notable results included:
  - Order packaging time **reduced 75%.**
  - **83% reduction** in time to locate inventory.
  - Overall **labor savings of 30%**, reducing FTE by 1.
  - Space utilization **improvement of 25%**, enabled relocation of in-process parts, saving 5 hrs/wk.



Additional Improvements

Area	Topic
Final Inspection	Visual Inventory Management
Raw Material	Locating Inventory
Receiving	Visual Inventory Management
Shipping	Locating Inventory
Shipping	Package and Ship an Order
Shipping	Packaging Cost Reduction

Package and Ship an Order Topic – Improved Task	Shipping Area	75% % Time Reduction
Restocking Topic – Improved Task	Final Inspection Area	83% % Time Reduction
Walking Distance Topic – Improved Task	Shipping Area	75% % Time Reduction

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Hardin Optical Company is a manufacturer of precision optics. We are a key sub-contractor for several DoD programs of record where we have been a reliable and consistent supplier of high-quality optical lenses. This vignette highlights a Continuous Improvement (CI) initiative to streamline operations and improve efficiency on the Faceplate line.

Before

After

Description / Return on Investment:

- The Faceplate line produces critical optical components for Night Vision Goggles. High volume necessitates standardized processes and tools to detect problems early before many parts are affected.
- The CI team identified visual management tools as an improvement opportunity for the Lapping process.
- To make visual tools visible and useful, the team first conducted a 5S project to organize the work center.
- The 5S project uncovered opportunities to improve flow and layout, thus reducing motion, inventory and waiting wastes.
- The resulting visual management tools, combined with layout changes resulted in:
  - **Improved production efficiency** by providing immediate and continuous status through visual controls - only the necessary parts at workstation.
  - Created a pull system between Lapping and Generating, **reducing motion waste and WIP**.
  - Visual mgt tools **improved output consistency**, resulting lower WIP and less labor.
  - **Reduced labor hours by 25%.**
  - Cleanliness improving preventive maintenance and contributing to a safe work environment.
  - Freed up capacity for employee-led **knowledge transfer** of 5S practices in other areas.

Before

After


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