OMIC | R&D

A world-class collaborative environment bringing together industry, higher education and government to develop new tools, techniques and technologies to address near-term manufacturing challenges through applied research.

Strengthening Oregon's Manufacturing Sector

OMIC R&D has built a powerhouse consortium of industry and academic leaders committed to combining their knowledge and experience to advance manufacturing to the next stage. **The key to this dynamic effort is invested collaboration.**

By creating applied solutions to problems that stand in the way of manufacturing and finding innovative advancement in production, our successes provide industry the tools they need to add jobs and gain a competitive edge in the global marketplace.

Applied Research Areas

OMIC R&D conducts applied research to resolve issues and challenges raised by industry enabling them to produce products **better, faster, greener and less expensively**.

By developing world class research capabilities in our four focus areas, OMIC R&D is helping industry by developing advanced manufacturing techniques, assessing emerging technologies for integration into the manufacturing line, and educating the next generation of manufacturing technicians.

Subtractive Machining. Increasing product quality and production capacity through new tooling and techniques using highly complex and capable CNC machines.

Robotics. Optimizing robotic, cobotic and mechatronic solutions to improve safety, quality and efficiency of the manufacturing space.

Additive Manufacturing. Realizing the potential of new technologies to de-risk investment by companies who can benefit from the unique advantages of 3d printing.

Materials Development. Increasing material performance and reducing the need for rare earth elements to create finished goods from nationally sourced materials.

Meeting Workforce Development Challenges

OMIC R&D, through our OMIC Academy and partnership with the PCC/OMIC Training Center is working with local, state, and regional partners to find innovative and effective solutions to the workforce challenge facing manufacturers.

These solutions must not only align skills training with industry needs, they must also attract a broader range of people seeking careers in manufacturing. Our training methods create competence, provide problem solving experience and kindle a passion for the work so employees will strive to learn as technology and needs change over time.

A Catalyst for Economic Development

Manufacturers, big and small, have already begun working with OMIC R&D to gain an economic competitiveness advantage and evaluate new opportunities such as additive manufacturing so they can make informed decisions for their businesses.

Beyond the advanced research and development being conducted, there is a practical business development element to the *OMIC Initiative*. By supporting innovative developments for small- and medium- sized manufacturers, their efficiency, flexibility and ability to take on new complex work increases significantly. These Oregon manufacturers become new viable sources of parts and assemblies for end-consumer product manufacturers who are often stifled by global supply chain deficits.

For new companies, the incubator at OMIC will provide a step progression for businesses to get solidly established for graduation to adjacent, prepared, industrial-employment land. These new businesses will feed local economic development and job creation efforts.

Collaborate. Innovate. Elevate.

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Collaboration members include: Absolent; ATI; AXILE; Boeing; CAPTURE 3D; Caron Engineering; CGTech; Cobot Team; Daimler Trucks; Doosan Machine Tools, Edge Technologies; Ellison Technologies; GEFERTEC; HAIMER; Hangsterfer's Laboratories; HEIDENHAIN; Horn USA; IEMCA; IMCO; IMS Software; Kennametal; Mahr; Mastercam; Mitsubishi Materials Corp; Oregon Institute of Technology; Oregon State University; Oregon Tool; OSG USA; Portland General Electric; Portland State University; Sandvik Coromant; Schaeffer Oil; Seco Tools; Silver Eagle Manufacturing; Sugino; Sumitomo; Thermal Modification Technologies; Tsugami/Rem Sales; Vigor; WFL Millturn; and ZOLLER.