

BIOGRAPHY



A. Sandy Munro

Design Prophet & CEO, Munro & Associates, Inc.

Sandy Munro is a frequent speaker and advisor to some of the world's top executives on implementing change and innovative development strategies. Called a visionary and master innovator by NASA, Sandy Munro offers his clients a wealth of perspective and a penchant for technology transfer. Although he began his career in the automotive and aircraft industry he has worked extensively with global corporations of all types along with their suppliers. Sandy's experience and insight cuts across virtually every segment of the manufacturing industry, from Barbie to the Space Station, which gives him a unique advantage in the area of technology transfer.

One of the pioneers in the application of design for assembly (DFA) Sandy founded his consulting firm, Munro & Associates, Inc., in 1988 and developed an enhanced process calling it design for manufacturability or DFM®. These principles were developed to help North American manufacturers harness the power of concurrent engineering to reach new levels of global competitiveness.

Sandy began his career as a toolmaker in Windsor Ontario, he worked his way up the ranks to designer and eventually became Engineering Manager at Valiant Machine Tool Company, a world recognized specialty Tool Company.

In 1978, Sandy joined Ford Motor Company and shifted roles from machine tool and automation designer to manufacturing engineer. After several projects where he helped increase productivity on engine assembly lines, he was promoted to Senior Automation Specialist, where he supervised installations like the Essex Engine Plant and the development of new, more productive engine manufacturing lines like the Lima Ohio Plant.

In 1982 Sandy met Dr E. Deming and everything in his carrier changed. Dr. Deming's phrase of "As variation is reduced Quality will increase" resonated with Sandy and he became a zealot in reducing variation but in a different way; as Sandy says "all variation stems from design."

The Deming spirit and philosophy is evident in all the Munro products and services.

After successfully implementing design for assembly principles at Ford, Sandy was named Corporate Coordinator – Design For Assembly for the automaker. In this new position, Sandy helped Ford utilize DFA to save billions of dollars, improve quality and

reduce development cycles during the early 1980's. For his efforts Sandy was nominated for the Henry Ford Award twice.

In 1988 Sandy was convinced by Dr Deming to leave Ford and start his own company which became Munro & Associates, Inc.

Since that time, Munro & Associates, Inc. has helped manufacturers of all types of products — from airplanes to toys, appliances to medical devices, and automobiles to electronics — to save an estimated \$50 billion and retain or return to North America hundreds of thousands of jobs. Also, his company's service portfolio has expanded to include; competitive benchmarking, at their 30,000 sq.ft. facility, strategic product planning, and Design Profit® a number of interrelated software tools to help manufacturing companies succeed. Design Profit includes Lean Design® a much enhance version of their DFM® process, Munro Quality Report Card®, which can help companies reach six sigma quality levels, The Wall Process® a tool to stop program creep and TechTransfer a search engine to assist in redesign effort.

With more than 30 years of experience designing, building, and processing components, Sandy brings clients a remarkable breadth of experience. He has chaired and spoken at numerous engineering conferences and symposia across the globe and has lectured at Stanford, Purdue, the University of Michigan, and many other universities.

Sandy is a member of the Society of Automotive Engineers, the Society of Manufacturing Engineers, and the Engineering Society of Detroit. He is the Chairman of NASA MI SATS (Small Aircraft Transportation System) a board member of NASA NCAM. (National Consortium for Air Mobility) and a Board of Advisors Member for University of Detroit Mercy.