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Firms introducing new technologies
reap big rewards, survey shows

Firms introducing some of the new manufacturing technologies-- such as robotics, automated materials handling, and just-in-time manufacturing-- realized significant financial benefits in the past year, a survey of 111 firms throughout southwestern Ontario and beyond shows.

The survey, conducted by the Research Centre for Management of New Technology (REMAT) at Wilfrid Laurier University, disclosed a number of dramatic benefits experienced by the firms.

Labor costs decreased by an average of 14 per cent, product rejects decreased by 10 per cent, and overall costs went down 12 per cent.

"For the firms in the sample, this led to increased profitability and competitiveness," said Dr. Hamid Noori, director of REMAT. "The impact on export sales was particularly noticeable, showing an increase of 11 per cent. Some firms more than doubled their export sales."

Noori said the survey showed more manufacturers are turning to automation and other forms of technology in order to increase their productivity, quality and competitiveness.

He said large firms still lead in the use of manufacturing automation, but small and medium-sized firms are investing in it at an increasing rate.

Among the manufacturing sectors studied, metal fabricating made the greatest use of new technologies, the REMAT study showed.

More than half the firms studied presently use a form of numerical control in their manufacturing operations. Computer-aided design was the next most popular form of automation, with more than a third of the firms using it.

Less utilized forms of technology included just-in-time manufacturing, computer-aided manufacturing, group technology, and artificial intelligence.

"With the need to stay competitive in the market-place, firms are planning to make use of new technologies, either by introducing new techniques, or by adding to what they already have," Noori said.

"Numerical control, computer-aided manufacturing, just-in-time manufacturing, and computer-aided design will continue to be the popular technologies. Growing in use will be robotics, automated materials handling, flexible manufacturing systems, and artificial intelligence."

Noori said the REMAT survey will be repeated annually in order to monitor the impact of technology on manufacturing firms, and to provide feedback to them. He added that full details of the survey results are available from the REMAT office at Laurier.