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Manufacturing Productivity Technology Centre at A*STAR's SIMTech Launches New Productivity Initiative

1. **Singapore, 29 October 2012** - Singapore's manufacturing industry will benefit from a productivity boost with the launch of the Overall Equipment Effectiveness (OEE) initiative – a move spearheaded by the Manufacturing Productivity Technology Centre (MPTC) hosted at A*STAR's Singapore Institute of Manufacturing Technology (SIMTech). The OEE initiative encourages companies to increase productivity by improving machine utilisation, performance and quality with R&D and the adoption of advanced manufacturing technologies developed by A*STAR's SIMTech.

2. Central to this OEE initiative is a unique programme comprising OEE champion training, OEE assessment, identification of areas for improvement, as well as OEE technologies adoption and nurturing a culture of improvement. The initiative advances expertise through systematic training of the local manufacturing workforce in application of knowledge and technology to raise competency and productivity on the manufacturing shop-floor.

OEE and Benefits

3. The OEE measures how well a manufacturing unit performs in three key categories: Availability¹, Performance² and Quality³. An OEE score based on these

¹Tracks the time the plant was readily available for production compared to the manufacturing requirements.

²Records the rate that actual units were produced compared to the designed output.

³Measures good quality products after removal of waste.

three categories will provide an indication to the company of the relative level of performance against the optimum that can be achieved.

4. To date, CKE Manufacturing, EADS Singapore, Makino Asia, Micro-Mechanics and Mitsubishi Overseas HQ have signed up as members of the OEE initiative. They represent different industry sectors from precision engineering, aerospace to equipment manufacturing. These members are gearing to improve the overall productivity and utilisation of their manufacturing assets through the OOE initiative.

5. CKE Manufacturing, which provides precision machining services for the local and regional industries, aspires to benefit from higher machine yields and cutting tool utilisation to boost productivity of its machining equipment. EADS Singapore, through its research center Innovation Works South Asia, will partner and facilitate local MRO companies in productivity improvements.

6. Commented Dr Lee Eng Wah, Director of MPTC, “In many manufacturing industries, finding a key to improve productivity is a pressing need. The OEE initiative, built on technologies and methodologies developed through the research in SIMTech, is a valuable platform for industry to acquire knowledge, competency and technologies to address productivity challenges. The OEE initiative, one of several productivity enhancement efforts in MPTC, is a valuable tool to support continuous productivity improvements in companies.”

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About the Agency for Science, Technology and Research (A*STAR)

The Agency for Science, Technology and Research (A*STAR) is Singapore's lead public sector agency that fosters world-class scientific research and talent to drive economic growth and transform Singapore into a vibrant knowledge-based and innovation driven economy.

In line with its mission-oriented mandate, A*STAR spearheads research and development in fields that are essential to growing Singapore's manufacturing sector and catalysing new growth industries. A*STAR supports these economic clusters by providing intellectual, human and industrial capital to its partners in industry.

A*STAR oversees 20 biomedical sciences and physical sciences and engineering research entities, located in Biopolis and Fusionopolis as well as their vicinity. These two R&D hubs house a bustling and diverse community of local and international research scientists and engineers from A*STAR's research entities as well as a growing number of corporate laboratories.

For more information about A*STAR, please visit www.a-star.edu.sg.

About the Singapore Institute of Manufacturing Technology (SIMTech)

The Singapore Institute of Manufacturing Technology (SIMTech) is a research institute of the Science and Engineering Research Council (SERC) of the Agency for Science, Technology and Research (A*STAR).

SIMTech develops high value manufacturing technology and human capital to contribute to the competitiveness of the Singapore industry. It collaborates with multinational and local companies in the precision engineering, electronics, semiconductor, medical technology, aerospace, automotive, marine, logistics and other sectors.

For more information, please visit www.SIMTech.a-star.edu.sg

About the Manufacturing Productivity Technology Centre (MPTC)

The first of its kind in Singapore, MPTC promotes the use of technology to enhance manufacturing productivity through improving efficiency, effectiveness and also develop high-value products and services through value creation. To achieve this, MPTC assists companies to harness A*STAR technologies, tools and capabilities in automation, processes and systems for manufacturing enterprises to gain “step-change” improvement in manufacturing productivity. The centre showcases examples of industry’s productivity success stories.

For more information, please visit www.mptc.SIMTech.a-star.edu.sg

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OEE Integrated Training Programme

In the programme, the OEE champions receive training on OEE concepts, principles and methodology, OEE analysis and tools. They will apply the OEE knowledge through instructor facilitation to develop OEE assessment with their respective company teams.

The OEE assessment involves company-specific data collection with regard to availability, performance and quality indicators of individual selected manufacturing work units. Through instructor facilitation, the OEE champions lead the company teams to drill down to issues, analyse root causes, identify scope for improvement and identify ways for improvement using advanced manufacturing technologies.

The results of the OEE assessment are presented to company management for implementation. Implementation of OEE projects involve technology acquisition, development of suitable solutions, monitoring of enhanced system and validation of performance. Continuous improvement represents the next important step to constantly review the OEE indicators, analyse the gaps between actual and ideal performance to further enhance the solution.