

Knowledge wildfire and Industry 4.0



MIKE JAMES: ATS GLOBAL

Knowledge, it spreads like wildfire. Yet all this knowledge does not yet translate to increases in productivity. The Manufacturing Operations Management Institute and the Manufacturing Enterprise Solutions Association are trying to change that

When the first Industry 4.0 report was handed over to the German Chancellor Angela Merkel in April 2013, it became a hit worldwide. People instinctively understood its importance. Government agencies and commercial organisations saw the chance to revolutionise their countries and companies.

As a result, we are in a period of transition. The old world of manufacturing must continue to run and the new world needs investment and a clear vision, which needs backing up with thorough and consistent action. Think electric or hydrogen vehicles, think autonomous driving. Experts estimate that US\$300 billion will be invested in these industries in the next seven years.

Only some of that investment will go into manufacturing plants; most is needed for design, infrastructure and marketing. Self-organised plants, a goal of Industry 4.0, are

slowly developing. The knowledge spread by the Industry 4.0 working groups is gaining momentum and, more importantly, depth.

The principles of the original report are easy to grasp, although few people have actually read it – so beware of false news. Knowledge depth is critical to advancing Industry 4.0 and its spinoffs in various global markets. Creating communication protocols between machines to allow them to talk to each other is a long, tedious and expensive process. Yet without them, we cannot build a self-organised plant where equipment can take corrective action without people intervening. Nor can they operate safely without high levels of IT/OT security.

We have implemented a manufacturing service bus (MSB) for the industrial internet of things (IIoT) at some major aerospace, automotive and pharmaceutical manufacturers. The ATS Bus is the first step to creating an IIoT architecture for Industry 4.0 plants – a foundation for the future.

This brings me to knowledge wildfire: it burns brightly when it is full of concepts and ideas. It dims to a slow burn when it comes to detailed understanding and technical solutions backed by well thought out business plans. Spread the knowledge with the support of the Manufacturing Operations Management Institute and the Manufacturing Enterprise Solutions Association and get your people educated for the real Industry 4.0 stage! ■

Mike James is chair of the board of directors at ATS Global and a leading global expert in industry 4.0

MOMi Education Event Dates & Locations

17-18 Apr

Smart Manufacturing and Industry 4.0 Strategies
Haarlem, BE

4 June 2019

MESA Certificate of Competency MES/MOM
San Francisco, US

21 May 2019

Cybersecurity for Manufacturing
(ISA/IEC-62443)
Cork, IE

21 Aug 2019

Smart Manufacturing and Industry 4.0
Johannesburg, ZA