# 4IR from Buzzword to Reality: Smart Factory Adoption Rates - Best Practices and Leading Technologies

written by Lauri Moon | July 8, 2019

Companies are making progress in implementing new technologies, but scaling and linking investment to value remains a work in progress.

The Fourth Industrial Revolution – 4IR – has been met with both enthusiasm and fence-sitting. While sentiments and experiences have been mixed, most business leaders are now approaching 4IR with a sense of measured optimism. While they recognize the potential business value advanced manufacturing technologies can present—particularly cloud computing, advanced analytics, robotics, the industrial internet of things (IIoT), 3D printing, virtual and augmented reality—they are still deliberating how and where to invest and balancing the hype with their own level of preparedness. Meanwhile, they're also well aware of the significant changes 4IR will bring to a new manufacturing workforce—one that is increasingly becoming a hybrid of human and machine.

There is little doubt that 4IR adoption has hit the tipping point, despite the fact that today only around 20% of companies are implementing smart factory technologies at scale. Momentum is building, however, as evidenced by the fact that 73% of manufacturers are planning to increase their investment in smart factory technology over the next year and 70% citing adopting an IoT strategy as being moderately to extremely critical. IoT and robotics have made the most inroads, with 80% of manufacturers planning to deploy sensors in operations over the next three years and 65% saying they've deployed applied robotics in their operations over the past three years.

# About the 4IR survey

PwC and The Manufacturing Institute (the workforce and thought leadership arm of the National Association of Manufacturers), surveyed approximately 100 US-based manufacturers. Looking at the results, we see a definitive—and, indeed, inevitable—shift to 4IR as companies seek to integrate new technologies into their operations, supply chain and product portfolio. However, these companies acknowledge that scaling, justifying 4IR investments and dealing with uncertainty surrounding use cases and applications present a new set of challenges.

# Join us to explore the survey findings and PwC's recommendations. Here's a sneak preview:

- While the sector as a whole is making assertive forays into 4IR, many manufacturers still inhabit the awareness and pilot phase. Nearly half of manufacturers surveyed reported that they are in the early stages of a smart factory transition (awareness, experimental and early adoption phases). The majority of those that have implemented smart factory use cases consider a quarter to be a success.
- Manufacturers expect the transition to accelerate in the coming years—73% are planning to increase their investment in smart factory technology over the next year.
- While we see a number of fence-sitters, the bulk of manufacturers are indeed prioritizing 4IR, the digital ecosystem and emerging technologies.
   35% of survey respondents says they have deployed advanced analytics in their operations and 34% have deployed it in their supply chain.
- About 70% of manufacturers say the biggest impacts of robotics on the workforce in the next five years will be an increased need for talent to manage the robotics workplace and the opening of new jobs to engineer robotics and their operating systems.



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# **Cybersecurity Lunch and Learn**

written by Lauri Moon | July 8, 2019

We hear a lot about cybersecurity risk these days. And many companies have an IT company (outsourced) or an IT Department that handles virus protection, malware protection, etc. However, not many small businesses realize that they are a target of hackers and how vulnerable they really are.

IMC is sponsoring a cybersecurity lunch and learn event in combination with Real IT Care (Technical Support) and Core Business Solutions (Consulting Support).





Who should attend: Small business owners, IT staff, quality managers, and anyone wanting to understand risks and get answers on how to appropriately address cybersecurity risks for your organization. Special topic for DOD contractors will be included regarding NIST SP 800 171 compliance as well.



# **Acumatic Manufacturing Demo**

written by Lauri Moon | July 8, 2019

Learn how Acumatica's Manufacturing ERP software integrates manufacturing, inventory management, and accounting to help businesses ensure raw materials are available to production, manage the manufacturing process, maintain revisions, and track the financials.

In this session we'll cover areas that provide real outcomes for manufacturers:

- Bill of Materials (BOM) & Routings
- How to plan and manage inventories, costs, and manufacturing processes, as well as full revision control
- Production Management
- How to schedule production on the shop floor and track material and labor costs
- How to compare standard and planned production costs to the actual costs of the production order

Let this overview of Acumatica's Manufacturing Edition provide you with some answers during your ERP selection process.

# Funding and Incentives to Implement Energy Efficient Projects

written by Lauri Moon | July 8, 2019

Opportunities to improve efficiency and reduce energy-related costs often can require investment in new

equipment, technology, or controls. Identifying funding available to your business and providing estimates of project payback are key components.

Many companies could be eligible to apply for funding to assist with improvement efforts. Eligibility of sites and projects, however, should be considered carefully.

This PennTAP webinar will discuss funding opportunities for small to midsized companies throughout Pennsylvania.

### Presented by:

- Denise Bechdel, Energy & Environment Team Lead
- Ed Boito, Small Business Ombudsman, PA Dept of Environmental Protection



# Business Continuity During Natural Disasters

written by Lauri Moon | July 8, 2019

# Supporting Your Employees and Protecting Your Business

As natural disasters continue to impact businesses both large and small at a seemingly increasing frequency, what are the proactive steps that business leaders can take now to be as ready as possible? This presentation will focus on two key areas of business concern during and after natural disasters: (1) stabilizing my employees living conditions so they can return to work, and (2) stabilizing and recovering my facility assets so I can serve my customers. Both are essential to

minimizing the business disruption that a natural disaster can cause.

We will provide many best practices that have been refined by lessons learned during recent events.

- Plan ahead to have right resources in place to respond and recover.
- Employee Stabilization best practices that focus on what your people need to recover at home so they can return their focus on the business.
- Facility Asset recovery best practices from emergency logistics to cost tracking to worker health & safety.

### **Sponsor**:



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# Managing the Digital Thread for Product and Factory Transformation

written by Lauri Moon | July 8, 2019

The EHT industry has its own unique set of challenges including new product

introduction cycles, shorter product lifecycles and increasing product complexities and regulatory compliances. As a result, achieving the end-goal of reducing costs while increasing efficiencies between OEM/ODM, EMS and downstream suppliers can seem like a monumental task. In this session, we will explore how PLM can be used to manage the EHT Digital Thread across multiple stakeholders to resolve issues related to disconnected processes, product data and resources. Jabil, the world's third largest electronic manufacturing services provider, will then discuss how they leveraged the Digital Factory to expand expertise, ingenuity and supply chain optimization to help their customers innovate and maintain market leadership.

### **Key Takeaways:**

- Understand how to leverage PLM to manage the Digital Thread
- Learn how PLM and the Digital Thread can help achieve business initiatives
- See how to increase supply chain efficiencies with integrating PLM and the Digital Factory



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# The Economic and Strategic

# **Benefits of Cloud ERP**

written by Lauri Moon | July 8, 2019

Based on research from Computer Economics, organizations that have fully or largely migrated their ERP and other solutions to the cloud spend less on IT as a percentage of revenue and on a per-user basis. Savings come not only from a reduction in data center spending but also from lower IT personnel costs. Moreover, because cloud-based systems reduce the effort needed for ongoing support, cloud users are able to devote a higher percentage of their IT spending to new initiatives. The cost savings, combined with strategic benefits in speed, scalability, and agility, argue in favor of organizations moving aggressively to the cloud. This presentation will summarize these research findings.

Join Frank Scavo of Computer Economics, an independent IT research firm, as he explores the economic and strategic benefits of cloud computing with an emphasis on Cloud ERP.

### Attendees will learn:

- Benchmarks showing the cost savings that organizations typically achieve when migrating to cloud systems
- The strategic benefits that companies gain with Cloud ERP in addition to the cost benefits
- Practical recommendations to ensure the realization of benefits in migrating to Cloud ERP

Everyone that attends the live webinar on June 27 will receive the Computer Economics Research Report, "The Economic and Strategic Benefits of Cloud Computing" (retails for \$995 on Computer Economics).

# **Speakers**

# Frank Scavo, President, Computer Economics

Frank Scavo is the President of Computer Economics, an IT research firm based in Irvine, CA, where he covers the enterprise software industry. In addition to his work

as an industry analyst, he has been leading ERP selection projects for clients since 1989. Frank is a graduate of the University of Pennsylvania and a Certified Fellow in Production and Inventory Management (CFPIM) by APICS, the association for supply chain management.

# **▼** Tom Brennan, CMO, Rootstock

Tom Brennan is Rootstock's CMO. Tom has 30 years of professional experience working in ERP and for business software companies. He has been a long time evangelist of cloud computing and has held many executive roles including several years as the Senior Vice President of Marketing at FinancialForce.



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# Machine Risk Assessment Essentials

written by Lauri Moon | July 8, 2019

Industrial machinery can expose personnel to multiple hazards resulting in a range of risks. If not properly recognized and mitigated, these risks can lead to injuries, lost production or loss of life. By law, every employer must complete a workplace hazard assessment. A thorough risk assessment includes identification of hazards, frequency of exposure, probability of injury, severity of injury and methods for reducing risk. This webinar teaches you how to assess risks associated with fixed industrial machinery and establish a risk level based on ANSI/RIA risk assessment methods. After completing this webinar, attendees will become familiar with the machine risk assessment process and understand important questions to ask.

### **Objectives:**

- Address the importance of machine safety
- Review OSHA requirements for machine safeguarding
- Provide an overview of the many codes and standards that may be included in a machine safety and risk assessment
- Provide basic methods and tools for getting started with machine safety and risk assessments

In today's highly competitive environment, understanding your risk is essential to good business practices. Machinery hazards can be identified, assessed, and mitigated to limit exposure to risk. Learn workplace safety requirements and U.S. machine safety regulations from the experts at UL.

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# **Embargoes & Sanctions**

written by Lauri Moon | July 8, 2019

**Embargoed Countries, Arms Embargoed Countries, Sanctioned Countries & Presidential Sanctions** 

What Do These Terms Mean and How Do They Relate To Your Export Transactions and Compliance? Export controls and compliance with the regulations has long been a complex issue for exporters. Dealing with the various levels of embargoes and sanctions can be confusing and costly if any applicable restrictions are violated.

This webinar will break down into simple terms the various types and levels of embargoes and sanctions. It will explain who the controlling agencies are, determine what types of transactions are affected and how to incorporate a review of these embargoes and sanctions into your due diligence and compliance procedures.

Who should attend?

- Anyone responsible for export compliance
- Logistics
- Shipping
- Sales/marketing
- International Supervisors and Managers

# Presenter: Robert Imbriani, Team Worldwide

There is no cost to participate. Registration is required. Dial-in information will be provided upon registration.

Register

# Are You Considering Entering the EU Market?

written by Lauri Moon | July 8, 2019
If the answer is Yes, then this webinar is a must for you.

Irish Manufacturing Research (IMR), in collaboration with Littus and the Pennsylvania Department of Community and Economic Development, is offering a unique program that will help you:

- 1. Expedite your orientation into the EU market using Ireland as a base
- 2. Access considerable engineering support from IMR's extensive EU advanced manufacturing network to de-risk your market entry
- 3. Launch your EU/Irish business and develop a solid operational plan for the first 3 years



Join us and get an overview of this unique program and see how it can help you to de-risk your entry into this critical market.

Register