

NEW Manufacturing Alliance
INDUSTRY 4.0 TASK FORCE MEETING MINUTES
NWTC's Startup Hub – Green Bay, WI
Wednesday, July 17, 2019 – 1:00 PM

ATTENDEES: Jeff Blackman-Oshkosh Corp., Kathy Koehler-Pioneer Metal Finishing, Stewart Larsen-Camera Corner Connecting Point, Troy Linszen-Oshkosh Corp., Chris Lipski-Vantage Financial, Pam Mazur-NWTC, Tony Olson-Excelion Partners, Jason Roland-Jacobs, Dennis Somers-WI Lift Truck Corp., Jill Thiede-PCMC, Joe Vehec-PNC Bank, Joel Warren-Rockwell Automation, Ann Franz-NEWMA, Debbie Thompson-NWTC

WELCOME & INTRODUCTIONS

Ann shared that the International Economic Development Council is using the Alliance's Industry 4.0 study for its research on Industry 4.0. There have been several news articles written about the study in publications such as *Insight on Business*, *Insight on Manufacturing* and Gannett newspapers.

REVIEW: NEEDS, SKILLS, & TALENT SURVEY

104 companies participated in the 2019 survey, conducted by St. Norbert College's Strategic Research Institute.

Key findings:

- Most companies do not have an Industry 4.0 plan (35%) or only have a partial plan (53%).
- One in three of the respondents stated they are currently invested in cybersecurity, computer science, cloud computing and big data analytics.
- Cybersecurity and automation have the largest investment increases in the next 3 years.
- Most companies are not sure or do not plan to implement co-bots.
- Departments most impacted by Industry 4.0 are; IT, engineering, and production.
- The role of the IT department can be shrinking, as all departments need to be utilizing IT.
- In the 7 departments polled, the most needed skills are cybersecurity, computer science/application development and data analysis.
- In the 7 departments polled, the most needed skills need in the future are data analysis, cybersecurity, and smart/system integration.
- Technologies having the most impact in the next 12 months are: process monitoring, mobile friendly user interfaces, and robotic vision systems.
- Technologies having the most impact in the next 2-3 years are: connectivity technologies (5G wireless, etc.), predictive modeling systems, mobile friendly user interfaces and smart energy consumption.
- Curriculum and training programs that develop data analysts and process engineers are needed.
- Fewer than 50% have invested in AI, simulation, additive manufacturing or virtual/augmented reality.
- New employees hired (20% or more) are: process engineers, application developers, industrial computer programmer and supply chain business analyst.
- Occupations to be outsourced (20% or more) are: application developer, cybersecurity officer and data architect.

The discussion at the meeting offered other suggestions

- Project management is a skill to be added to a future survey, because it is needed in every facet of the business.
- What computer languages are gaining momentum?
- Companies are not aware of the data advances, not that they do not want to advance.
- Safety is another reason automation and robotics are being implemented.
- Rebrand IT to Digital Technology.
- Data analysis is needed for AR to be used within an organization. In addition, a company needs to be connected before it can be digitized and AR/AI can be utilized.
- Instead of having the survey done every two years, have a live dashboard for members to share real time data?
- Culture and organizational change management are critically important to successfully implementing Industry 4.0.

Next Steps:

1. Members of the task force requested a breakdown of the survey results by manufacturing sector. Ann will contact Jamie for him to share this data with the group.
2. Members will be invited to a special program in September with an HP rep sharing the company's Industry 4.0 investment including 3D printers using metals.
3. The task force will be work on Industry 4.0 research, case studies, and how technology is being used.

CAREER PATHWAYS: PROCESS ENGINEERING

Pam shared research done on process engineering related positions, employment projections and roles. This information will be used in creating a career pathway in process engineering. At the meeting there was a suggestion to add a job title of 'quality & continuous improvement' or 'process improvement manager'. Oshkosh has developed a training program related to these roles.

- ✓ Task force members are asked to review the job titles and add/edit for the next meeting.

CAREER PATHWAYS: DATA ANALYTICS

Pam Mazur will contact NWTC's library for Data Analytics career information, like the research on process engineering.

2019 – 2021 STRATEGIC PLANNING

- Career Pathways for Process Engineer & Data Analytics
- Knowledge Share – Host content experts.
- Industry 4.0 Awareness
- Conduct a case study in Industry 4.0 with the task force members.
- Help companies see what a plan looks like. What is important to your company? Jacobs could share what a digital master plan looks like.
- Share info at full membership meetings. See if smaller events could be held to share information like Manufacturing Forward.
- Create an Industry 4.0 email distribution for members.

NEXT MEETING

Ann will send a Doodle poll to determine a time slot for upcoming meetings.