Are You Ready?
ManpowerGroup: Workforce Experts

Finding Work for nearly **10,000** Wisconsin Residents Each Year

Nearly 70 Years of Global Workforce Solutions Expertise
Headquartered in Milwaukee, Wisconsin

- **Revenues of $19 billion**
- 84% of revenues generated outside the U.S.
- 80 Countries & Territories
- 27,000 Employees
- 2,900 Offices

**World-leading IT professional resourcing firm**
LARGEST GLOBAL VENDOR-NEUTRAL MSP PROVIDER
A World-Leading Outplacement Firm

- Providing meaningful work for over **600,000** people everyday
- Finding talent for **400,000** clients from small/medium to Fortune 100 companies
- Connecting **3.4 million** job seekers with work every year, globally

**Half a million permanent jobs in 2016**

Most Trusted Brand in the Industry

Strong and Connected Brands

ManpowerGroup Solutions
Manpower
Experis
Right Management
New Business Creation Lowest in the Midwest

Share of state population in counties where establishment growth matched or exceeded national rate (2010-2014)

Source: Economic Innovation Group, 2016
U.S. Mobility Rate at Historic Low: Labor Market is Tightening

*The one-year geographic mobility question was not asked between 1972-1975 and 1977-1980. Applies to the population age one and over.

Source: U.S. Census Bureau

U.S. mobility 11.2% in 2016
Growing Talent Shortages in Wisconsin

46% of US employers report difficulty filling jobs according to ManpowerGroup’s 2016 Talent Shortage Survey.

Wisconsin has had a positive net hiring outlook over 10% for the past 7 years according to our MEOS Survey.

Manpower’s Recruitment Difficulty Index (RDI)

Easy

Hard
Automation is Replacing Routine Work; New Skills are New Basis

Technical feasibility, % of time spent on activities that can be automated by adapting currently demonstrated technology.

MIT Automation Research

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Predictable physical work
Manufacturing is Upskilling

Gen 0
Standardize & Power
1900-1980*
Conventional

Gen 1
Digitize & Automate
1980-2005*
Transitional

Gen 2
Connect
2005-2020*
Transformational

Gen 3
Smart Systems
Beyond 2020
Emerging
Impact of Technology on Productivity and Jobs in Manufacturing

Sources: U.S. Department of Labor / BLS & Bruce Steinberg (Indices Base Year 2009)
Educational attainment among manufacturing sector workers
More than 90% of employers expect their organization to be impacted by digitization in the next two years.

Organizations with high digital capability today: 81%

Participants recognize digital is a critical driver of future competitiveness.

3 out of 4 Business leaders who believe automation will require new skills over the next 2 years.

% jobs not yet invented that today’s children will have in the future: 65%

Source: ManpowerGroup survey of 18,000 employers in 43 countries

Source: McLeod & Fisch, "Shift Happens"
ManpowerGroup Partnering with DMDII

We partnered with the Digital Manufacturing Design Innovation Institute in Chicago, GE, Microsoft, P&G, Caterpillar, Boeing and more.

We’re defining and mapping emerging roles in advanced digital manufacturing to ensure work-ready graduates with in-demand skills.

We identified 165 potential roles such as Lifecycle Digital Twin Architect and Data Management Analyst that are critical to the success of digital manufacturing.
Manufacturing is Upskilling

New Futures, New Roles

**DIGITAL ENTERPRISE**
- Chief Digital Officer - Manufacturing
- Digital Manufacturing Organizational Change Management Strategist
- Enterprise Supply Network Manager
- Enterprise Digital Ethicist

**DIGITAL THREAD**
- Digital Thread Engineer
- Manufacturing Cybersecurity Strategist
- Life Cycle Digital Twin Architect
- IT/OT Systems Engineer

**DIGITAL DESIGN**
- Model Based Systems Engineer (MBSE)
- Virtual Reality/Augmented Reality System Specialist
- Worker Experience Designer
- User Experience Architect

**DIGITAL PRODUCT**
- Embedded Product Prognostics Engineer

**SUPPLY NETWORK**
- Predictive Supply Network Analytics Engineer
- Digital Manufacturing Biomimicry Specialist

**DIGITAL MANUFACTURING**
- Digital Manufacturing Engineer
- Predictive Maintenance System Specialist
- Machine Learning Specialist
- Factory Automation Engineer
- Collaborative Robotics Specialist
Smart Technologies Impact Breakout Roles

Breakout Roles Across the Domains

- Digital Product Marketing Specialist
- Digital Manufacturing Engineer
- Cognitive Systems Specialist
- Self-guided Vehicle (SGV) Systems Engineer
- Cognitive Systems Engineer
- Factory Prognostics Engineer
- Machine Learning Specialist
- Process Engineer
- Virtual Reality/Augmented Reality System Specialist
- Enterprise Digital Ethicist
- Predictive Maintenance System Specialist
- Digital Twin Architect
- IIoT Systems Specialist
- Supply Network/Community Manager
- Collaborative Robotics Specialist
- IIoT Systems Architect
- Digital Manufacturing Safety Systems Specialist
- Digital Manufacturing Organizational Change Management Specialist
- Augmented Reality Manufacturing Systems Specialist
- Product Embedded Cognitive Systems Scientist
- Digital Product Safety Systems Engineer
- Digital Manufacturing Organizational Effectiveness Specialist
- Manufacturing Cybersecurity Engineer
- Digital Manufacturing Bionomics & Sustainability Specialist
- Digital Thread Engineer
- Process Quality Data Analyst
- Embedded Product Prognostics Engineer
- Process Quality Data Specialist
- Predictive Supply Network Analytics Engineer
- Digital Manufacturing Analyst
- Product Embedded Cognitive Systems Engineer
- Digital Twin Manager
- Operation Technologies Integration Engineer
- Chief Digital Officer
- IIoT Systems Engineer

Section 1: Job Role Identifier Section

Role Title: Machine Learning Specialist
Role Impact: Pioneer

Summary Scope

Serving as a bridge between the functions of data scientists, the machine automation level, and the complex yet integrative team that manages machine maintenance, the Machine Learning Specialist learns to apply data engineering and data science to meet business functionality needs. They learn and understand how to integrate data and AI into machine automation, optimizing the decision-making process of human expertise on a task, in decision, or in both.

Representing one of the primary innovation points within the broader digital enterprise, the Machine Learning Specialist has some heavy lifting on envisioning data-driven and data-informed products in the design stage. They must be able to evolve and develop technologies that equally evolve and adapt to align with new needs and emerging practices and tools to acquire, store, process, and deploy datasets. The Machine Learning Specialist’s role concerns the creation of automated and semi-automated workflows and solutions, leveraging the domain of machine learning to enable the exploration of new possibilities and solutions. This role is essential in the design, development, and deployment of AI-driven applications and systems, fostering innovation and growth across the organization.

Outcomes

- New insights generated
- Increased efficiency
- Customized solutions
- Continuous improvement

Domain Profile

- Digital Manufacturing
- Digital Thread
Transition Roles Offer a Path Forward

We identified 35 possible transition roles including:

1. Product Life Cycle Quality Data Analyst
2. Supply Network Quality Data Analyst
3. Continuous Improvement Engineer
4. Process Quality Data Manager
5. Embedded Product Prognostics Analyst
6. Digital Design Analyst
7. Manufacturing Cybersecurity Technician
8. Data Management Analyst
9. Digital Data Tester
A Double Dilemma

Demographics Converge with Need to Upskill/Reskill Talent

Business leaders who believe automation will require new skills over the next 2 years

3 out of 4

Source: ManpowerGroup survey of 18,000 employers in 43 countries

85%

Manufacturers in NE Wisconsin concerned about impact of demographics on skills & knowledge loss

35%

Manufacturers in NE Wisconsin who have a proactive plan to deal with risk

Over 1/3

56 years of age or older:

- Maintenance Mechanics & Millwrights
- Electricians
- Service Technicians
- Machinists
- Electro-Mechs

Source: 2017 NEW Manufacturing Alliance Survey of Members
Building the Organization of Tomorrow

- Digital Transformation
  - Lead organization through transformation

- Organizational Transformation (All Levels)
  - Leaders to lead sustained evolution and build change resilience

- Role & Skill Evolution
  - Tougher build, buy, and borrow decisions

The Challenge: How to rapidly increase Next Gen role / skills and Leadership in efficient / effective way
Leadership Development in Digital Manufacturing

✓ **Adaptability:**
Comfortable with ambiguity, complexity and uncertainty

✓ **Drive:**
Hunger, energy and desire to be successful

✓ **Endurance:**
Highly resilient, tenacious and has stamina

✓ **Brightness:**
Intellectually curious & sharp, with a strong appetite to continuously learn
Leading Digital
The Differentiators
Grow these elements of your Leadership Role

- Accelerate Performance
  - Short & Long Term Navigator
  - Inspiring Mobilizer

- Dare to Lead
  - Risk-Intelligent Opportunist
  - Rewarding Experimenter
  - Courageous Decision Innovator

- Unleash Talent
  - Inclusive Communicator
  - Community “We” Seeker

- Adaptability
- Brightness
- Drive
- Endurance
Building high-performing motorsports vehicles

- Reskilled workers in high-performing tech and motorsports manufacturing across 7 Italian cities, scaling across Europe and U.S. in 2017
- Placement rate of 70%, earning potential increase of 30%

Skill Up programs and apprenticeships in partnership with Jaguar LandRover

- Regeneration of declining manufacturing region in UK for 18 years, scaled beyond in China, Brazil, India and Slovakia
- 500,000 candidates engaged, 18,000 placed into work and 8,000+ apprenticeships over 5 years
Press Release Details

Rockwell Automation and ManpowerGroup Launch Partnership to Upskill 1,000 Military Veterans Annually for Leading-Edge Digital Manufacturing Roles

June 13, 2017

Industry leaders gear up to close the skills gap and fuel advanced manufacturing

MILWAUKEE – America’s military veterans will play a pivotal role in powering the next generation of advanced digital manufacturing, providing much-needed talent for rapidly transforming high-tech roles. A groundbreaking, new partnership announced today between industry leaders Rockwell Automation (NYSE: ROK) and ManpowerGroup (NYSE: MAN) will upskill 1,000 veterans per year by 2018, investing in the future workforce and creating a pool of certified talent for in-demand advanced manufacturing roles across the United States.
Manpower’s Acceleration Program (MAP): Doubling Americans’ Salaries

- 122,000 US associates have increased earning potential
- Industry-relevant courses and specialized coaching so people develop in-demand skills

Manpower’s MyPath: Skilling Up for Sustainable Careers

- Job experience, assessment, education and ongoing coaching to develop talent for unfilled roles in the U.S.
- 10,000 people Skilled In and Skilled Up into permanent work.
Helping people upskill and adapt to this fast-changing world of work will be the defining labor challenge of our time.

www.learnabilityquotient.com
Thank You