A Dive into Industry 4.0 & How to Harness its Potential

Gazelle.ai

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AGENDA

1. **What is Industry 4.0**

2. **Benefits of Industry 4.0 & why it matters**

3. **Using Gazelle.ai to identify Industry 4.0 opportunities**

4. **Connect and engage with Industry 4.0 leaders**

5. **Key takeaways**

6. **Q&A period**

WHAT IS INDUSTRY 4.0

- Umbrella term coined in Germany in 2011 to indicate the 4th industrial shift powered by digital & physical technologies.

- Often referred to as advanced manufacturing, digital manufacturing and smart factories

- Uses tech deployed in the 3rd Industrial Revolution (computers, electronics & IT) AND new disruptive ones that enable next-level **industrial automation**

- Characterized by increased connectivity, digitization, data, advanced analytics, sensors, robotics, softwares, and human-machine interactions

- Leading disruptive tech: Additive manufacturing (3D printing), cybersecurity, advanced materials (modeling, simulation), A.I, robotics, Industrial Internet of Things (IIoT), cloud computing

Industry 4.0 in Practice

Businesses can harness the potential of industry 4.0 by:

- Boosting **Ecommerce** investments to facilitate the customer journey and obtain data & analytics for current and future sales

- Integrating **cloud computing** services (instead of physical data centers) for easy access to real-time data and global deployment

- Using **simulation technologies** (i.e advanced computer softwares) to test and analyze product performance

- Employing **3D printing** for prototyping and to customize products

How Industry 4.0 Differs from 3.0

Characteristics	Industry 3.0	Industry 4.0
Processes	Automation	Autonomous decision making
Industry defining technology	Industrial robots	Collaborative robots
Production planning	Demand forecasting	On-Demand manufacturing
Alignment	Interconnection of production processes	Interconnection of the whole value chain
Variation	Delimited variation	Individually unique products
Goal	Efficiency	Flexibility
Revenue model	Selling products	Servitization

Source: Torn, I. A. R., & Vaneker, T. H. J. (2019). Mass personalization with industry 4.0 by smes: A concept for Collaborative Networks. Procedia Manufacturing, 28, 135–141. https://doi.org/10.1016/j.promfg.2018.12.022

KEY BENEFITS OF INDUSTRY 4.0

1. Data-driven

Products are developed based on real-time market fluctuations & needs

- Increases productivity & profits
- Shortens product lifecycle & time to market
- Encourages product customization & boosts quality

2. Sustainable

Digital manufacturing drives more sustainable operations & compliance to ESG standards

- Helps businesses lower their carbon emissions
- Reduces product waste (i.e smaller inventories)
- Improves workplace safety & health

3. People-centric

Success is driven by internal and external collaboration made possible by digital tools

- Reduces the friction within & outside businesses (employee relations & industry networks)
- Prioritizes customer service / experience & gives them more agency

WHY INDUSTRY 4.0 MATTERS

"*It looks like this shift will have a greater impact on industry than the arrival of the internet, which in many ways was just an augmentation of how things were done before. **Industry 4.0 is not an augmentation: it's a completely different economic model.**"*– Chris Johnson, head of Nokia's Global Enterprise Business.

Importance of EDOs within Industry 4.0

- Offer professional development opportunities to upskill the current manufacturing workforce
- Develop & maintain relationships with higher education to attract graduates with engineering, IT, data science, analytics & other STEM backgrounds
- Promote sustainable growth opportunities and technology transfer through innovative partnerships
- Connect with Industry 4.0 companies seeking to expand or relocate in your region
- Ensure local businesses have access to reliable high-speed internet
- Facilitate regional B2B relationships to create horizontal collaborative networks to enhance knowledge sharing

USING GAZELLE.AI TO IDENTIFY INDUSTRY 4.0 OPPORTUNITIES

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Upcoming Industry 4.0 Trade Shows

IoT Solutions World Congress
- Explores the disruptive technologies that are leading the digital transformation and the accompanying opportunities and challenges
- When & where → January 31st - February 2nd, 2023, Barcelona, Spain

IME West
- Advanced manufacturing event that explores multiple verticals and industries, like medical design & manufacturing to plastics and more
- When & where → February 7th - 9th 2023, Anaheim, United States

Expo Manufactura
- Showcases Mexican and international companies involved in industry 4.0 sectors like machinery, engineering and automation
- When & where → February 7th - 9th 2023, Monterrey, Mexico

Growth-oriented Industry 4.0 Companies

Servo-Robot (HQ: Canada)
- Manufacturers 3D robot-vision systems and software dedicated to real-time intelligent control and monitoring of industrial robots used in robotic arc, laser brazing and more
- Industries → Power generation, transportation, structures
- Latest expansion project → Open a sales office in Switzerland

Exosite (HQ: United States)
- IoT software company specializing in connected-product strategies enabling organizations to remotely monitor the condition of their equipment, predict maintenance and reduce energy usage
- Industries → Manufacturing & Automation, fleet telematics, commercial infrastructure
- Latest expansion project → Establish a commercial office in Germany

Growth-oriented Industry 4.0 Companies

Euclid Labs (HQ: Italy)
- Develops high-tech solutions for robotics and industrial automation to solve issues linked to small batch production and high quality requirements
- Industries served → Industrial machinery & equipment
- Latest expansion project → Open a commercial office in the United States

ESI Group (HQ: France)
- Provides virtual prototyping software & services specializing in material physics
- Helps industrial manufacturers replace physical prototypes by virtual ones and virtually assemble, manufacture & test their products
- Industries served → Aerospace, automotive, energy
- Latest expansion project → Establish a sales office in France

Industry 4.0 Company Clusters

- Discover clusters of Industry 4.0 companies by using our **map** tool paired with other features like **keywords**

- Add criteria like company, revenue, number of employees, **G-Score**, VC funding & more

- Further specify your area of interest by zooming-in & using the custom **map selection tool**

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Well-recognized Industry 4.0 Companies

- Rising IoT Startups

- Quebec's Most Innovative Machine Learning Companies

- Top Robotics Companies To Watch

Connecting with Industry 4.0 leaders

- After having identified interesting Industry 4.0 companies and projects, get in touch with their leaders
- With the company profile open, go to the **'People'** section to scan the list of C-level executives and managers
- Specify your contact search by unravelling the **'Primary Role'** and/or by selecting **'Show Branch People'**
- Save people's **email** or click on the envelope icon to let our **web crawlers** find their address

Tip: Ensure that your outreach strategy and messaging are tailored for each company you'll be contacting. Learn about strategies by viewing our December 2022 Projects webinar here.

TAKEAWAYS

➡️ What Industry 4.0 is and how businesses can integrate its components to accelerate their growth

➡️ The importance of EDOs in supporting businesses navigate through Industry 4.0

➡️ The value trapped in IIoT and examples of Gazelle.ai features to identify promising opportunities

QUESTIONS?

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Thank you!

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