



EUROPEAN
RENTAL
ASSOCIATION

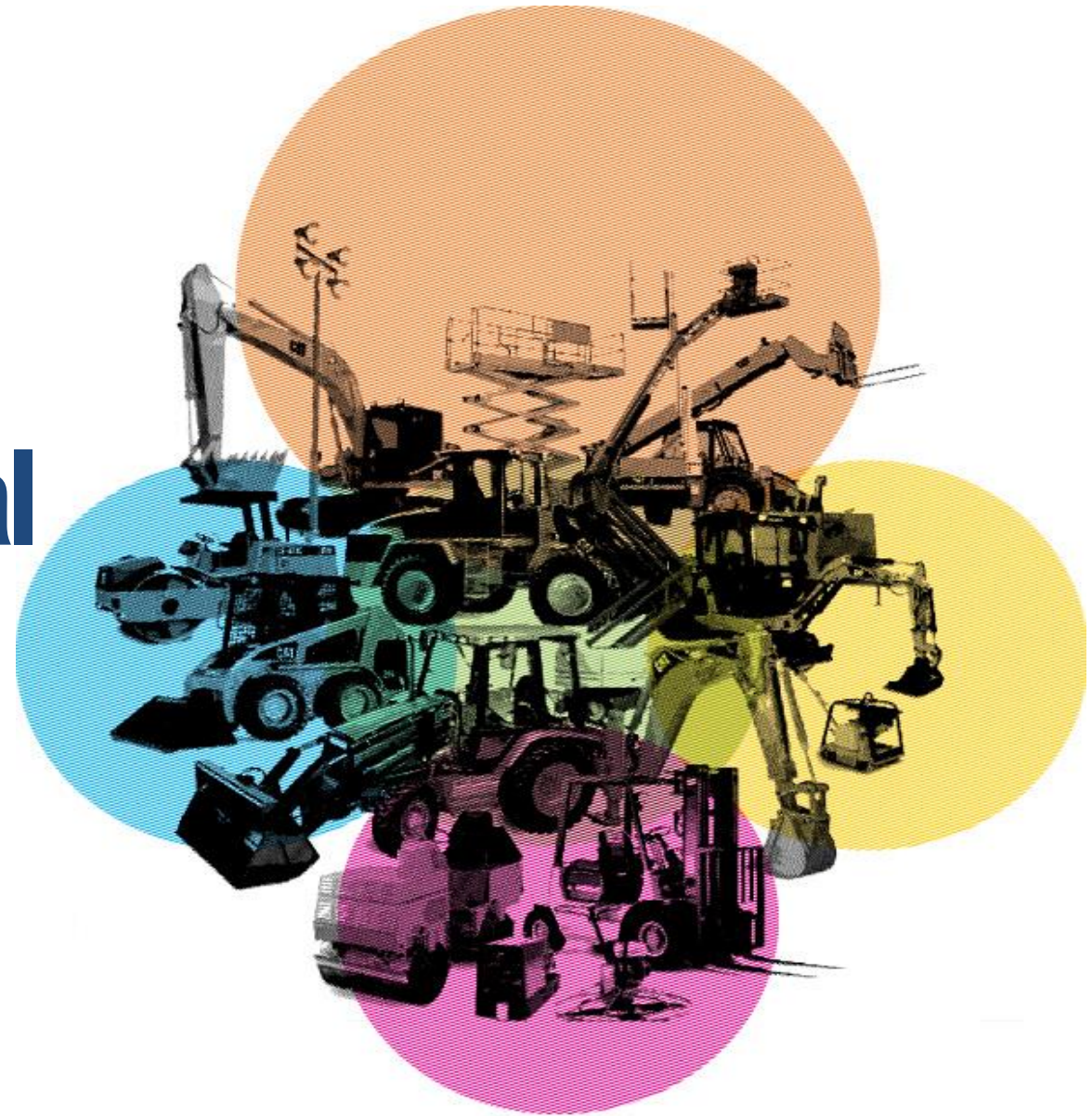
Industry 4.0 and Rental

Omar Achment

overstory.eco



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Omar Achment is a social entrepreneur and the founder of Overstory.eco, a firm focusing on business model innovation and sustainability.

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Industry 4.0 is the fourth of a series of industrial revolutions that have occurred over the past few and a half centuries.

In the first of two articles, Clotilde Joutte from **Avesco Rent** in Switzerland, and Omar Achment, founder of **Overstory.eco** consultancy, ask what **Industry 4.0** means for the rental business.

In October 2018 the two authors met at IMD Business School in Lausanne, where they had both attended a course on digital business transformation. He shared a common interest in Frank Jotzmann's *The Fourth Effect*, a book which explores why the most powerful innovation happens at an 'interface', where ideas and concepts from diverse industries, cultures and disciplines collide. Despite the technological changes happening around us, we realized that nothing will ever have been done to link the rental industry and the fourth industrial revolution, much less how to move as **Industry 4.0**. We decided to do the unexpected and combine our diverse backgrounds and experiences – following Jotzmann's concept – to explore the opportunities for rental associated with **Industry 4.0**.

Industry 4.0 is a phrase that is often misunderstood. Much of the confusion stems from the distinction between technology and human impact. We tested this by grouping 'Industry 4.0' into two sub-categories: one with a strong bias to specific technologies and currently tested trends, depending on the industry or industry being discussed. Unfortunately, this does not give us the full picture as it misses other important elements that will be required, such as social and environmental factors, talent, workforce sustainability.

As a result, a partial view severely limits our understanding of the

THE AUTHORS
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What is Industry 4.0?
Industry 4.0 is a series of events used to refer to the fourth of a series of industrial revolutions that have occurred over the past few and a half centuries. The first industrial revolution used mechanical production with water and steam power, which prepared the way for the second revolution of mass production, assembly lines and electricity. The third revolution focused on the use of computers and automation that became commonplace from the 1950s onwards. The fourth industrial revolution began with the creation of the internet. Simply defined, **Industry 4.0** is an intersection of the physical and digital worlds through technologies such as artificial intelligence, cognitive technologies and the internet of things (IoT).

These new technologies allow us to develop intelligent systems that generate business opportunities. For some products, better ways to serve customers, new jobs and the creation of

opportunities and risks that will be brought with the new wave of change. **Industry 4.0** has far-reaching implications for those that do not have digital and/or data science, robotics, machine learning skills and so on.

Therefore, it is important to make the definition clear at the outset by presenting the question: what is **Industry 4.0**? The challenge is to ensure that those of impact, explain why they matter to the rental industry and determine if there is value to all the parties.

The intention is to provide readers with a basic understanding of **Industry 4.0** and, we hope, something practical they can use as an starting point to implement change at their own sites.

Areas of Impact
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These new technologies allow us to develop intelligent systems that generate business opportunities. For some products, better ways to serve customers, new jobs and the creation of

new business models. There are many applications for these technologies that can be applied to many different industries. A simple example is self-driving cars – autonomous vehicles – that can sense their environment and operate with little or no human input, merging the physical and digital world.

Areas of Impact
Global markets have become more digital and organizations across all industries face an imperative to redesign themselves to move faster, adapt more quickly, facilitate self-learning, and embrace the demand for 'customer-centric products'. The company, its job, and ultimately, its governance and its economy, is immune to change.

Thoughtful and needs to choose how best to adapt to this moment of change, where their making for the underlying technology. The goal is to ask, what can we do with the new technology that was not possible before?

AVESCO RENT DIGITAL FOCUS 45

1st	2nd	3rd	4th
Mechanization, water power, steam power	Mass production, assembly line, electricity	Computer and automation	Cyber Physical Systems

Industry 4.0 and rental

Construction BIM (Building Information Modeling) and digital BIM techniques to construct the houses of the future in Dubai

Mini excavators

INTERVIEWS: XYLEM, GENERAC | ENGINES | GERMANY REPORT

INTERNATIONAL Rental NEWS

www.khl.com/irnm

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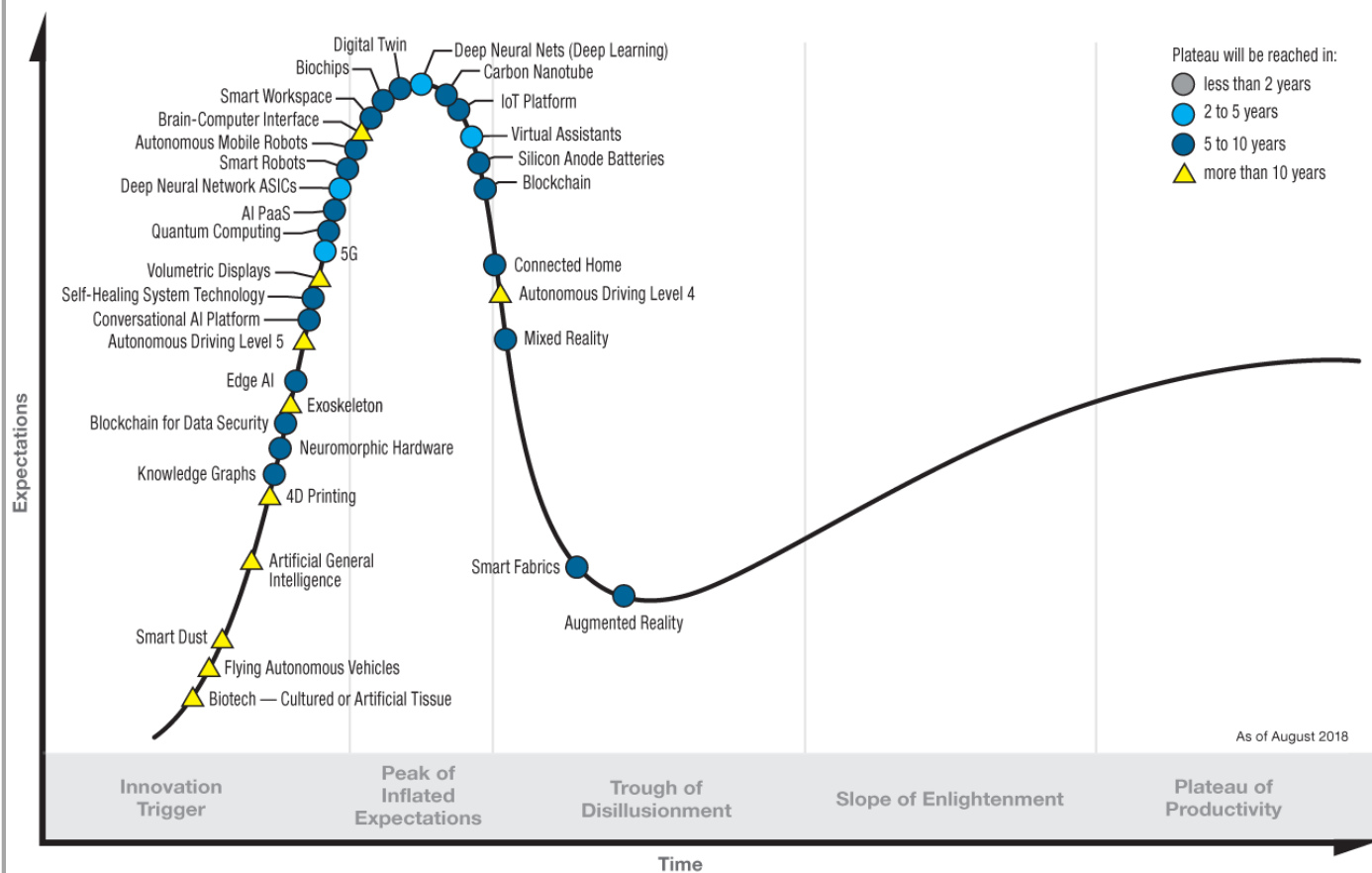
INTERVIEWS: XYLEM, GENERAC | ENGINES | GERMANY REPORT



<https://www.khl.com/international-rental-news/industry-40-and-rental/137768.article>

Technology Trends

Hype Cycle for Emerging Technologies, 2018



Emerging Technology Trends 2018



Democratized AI

- AI PaaS
- Artificial general intelligence
- Autonomous driving Level 4
- Autonomous mobile robots
- Conversational AI platform
- Deep neural nets
- Flying autonomous vehicles
- Smart robots
- Virtual assistants



Digitalized Ecosystems

- Blockchain
- Blockchain for data security
- Digital twin
- IoT platform
- Knowledge graphs



Do-It-Yourself Biohacking

- Biochips
- Biotech — cultured or artificial tissue
- Brain-computer interface
- Exoskeletons
- Augmented reality
- Mixed reality
- Smart fabrics



Transparently Immersive Experiences

- 4D printing
- Connected home
- Edge AI
- Self-healing system technology
- Silicon anode batteries
- Smart dust
- Smart workspace
- Volumetric displays



Ubiquitous Infrastructure

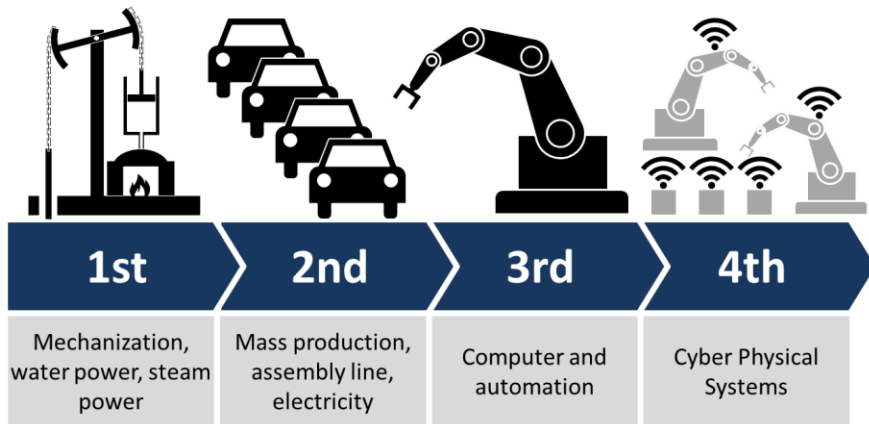
- 5G
- Carbon nanotube
- Deep neural network ASICs
- Neuromorphic hardware
- Quantum computing

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Industry 4.0



What is Industry 4.0?

Interconnection of the physical with the digital world, capable of more holistic, informed decision making to *drive intelligent action back* in the physical world.



STRATEGY

Bold long-term vision, go beyond incremental planning and capture value.



TECHNOLOGY

Invisible, compresses space & time, transparent – only enabler not solution



TALENT & WORKFORCE

Flex or Fail, enable not control, your work force is your greatest asset & differentiator



SOCIAL & ENVIRONMENTAL

New indicators SDG, ESG. Construction industry is facing pressure



Examples

BOSSARD
Proven Productivity



B2B



B2C,B2B



B2C,B2B

Depot of the Future



Depot of the Future

