

AXA EMERGING RISKS WATCH

The Smart Factory or «*the internet of everything*»

Risk Management Perspectives

Key aspects



Industry 4.0, also known as “Smart Factory”, describes all innovative technologies converging to propel a fourth industrial revolution. This is reminiscent of the way that the mechanization of the textile industry in Britain (water and steam power), the automobile assembly line process pioneered by Henry Ford that enabled mass production (electrical energy), and the use of computers in the latter half of the 20th century (digital revolution), all ushered in earlier waves of industrial innovation.

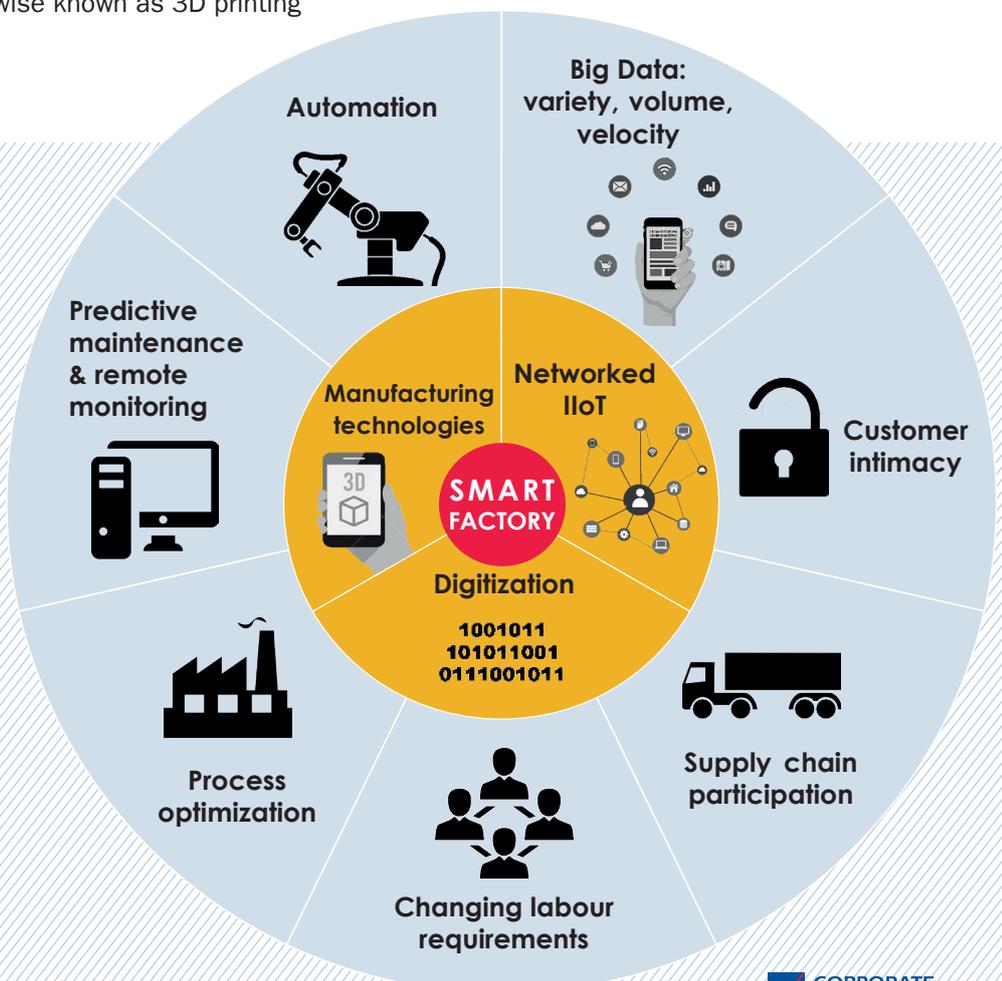
Digital innovation in manufacturing is giving rise to a new mode of production characterized **by the merger of the material and virtual worlds in “cyber-physical production systems”**. It spans the following fields:

- * **Automation, robotics**, and autonomous mobility;
- * **Machine-to-machine communications**
- * **“Big Data” & artificial intelligence**
- * **Optimized industrial processes**, implying fewer outages, reduced energy consumption and less maintenance downtime thanks to **predictive maintenance techniques** based upon real-time equipment monitoring to determine when maintenance should be performed and reduce machinery breakdown risks;
- * **Augmented reality**; offering training opportunities and maintenance support for employees through virtual reality headsets showing equipment inner workings
- * **Additive manufacturing**; otherwise known as 3D printing

Key figures



The German government announced it will invest **40bn€** every year until **2020** in the digital transformation of the industrial sector (European Parliament)



The Internet of everything : Risk Management Perspectives

Why we think it matters



Lines of business impacted

Product liability and recall, Workers Compensation, General liability, Professional liability, Business Interruption and Contingent Business Interruption and standard

Risks identified

P&C Reserving, Accumulation risk, Cyber

The rise of new digital industrial technology does not really change the typology of risk compared to the industry 3.0 but the big disruption mostly lies in the risk amplitude which becomes even more global and volatile and also in the difficulty to determine responsibilities. If those technologies will undoubtedly increase the manufacturing productivity they will also make industries much more vulnerable due to the fact that sensors, machines, workpieces, and IT systems are interconnected all along the value chain beyond a single enterprise.

It is therefore essential that each company performs an in-depth audit of its IT systems, how they interact with each others including third parties (suppliers, clients ...) and if efficient safeguards are implemented. There is indeed a real threat of greater disruption from business interruption. This audit should not be only technical but combined with business risk mapping. Cyber insurance is also a means to manage risk related to data flows, human errors and cyber attacks. For this reason AXA Corporate Solutions has developed a cyber insurance solution called Cybersphere which provides 1st party, liability and crime coverage.

For more information do not hesitate to contact AXA Corporate Solutions team.

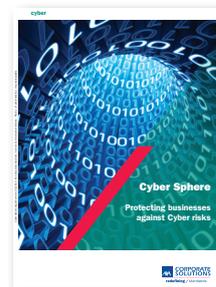
CONTACT

Irène PLICHON

Cyber product Manager
AXA Corporate Solutions

✉ irene.plichon@axa-cs.com

☎ +33 1 56 92 95 72



How to get more insights on this?



- AXA Research Fund, Paul Ohm AXA Award on "Big Data, Privacy
- CRO Forum – The Smart Factory Risk Management Perspectives