

MANUFACTURING

Ten critical risks shaping the manufacturing landscape today.



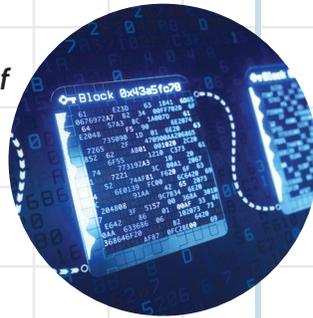
PRODUCT RECALL • Roughly **34 million products** were recalled in the U.S. in 2018, largely due to flaws arising from incomplete quality assurance processes or poor supply chain management.

HIGH IMPACT

SKILLS GAP • About **2.4 million** manufacturing positions requiring critical thinking, programming, and digital skills will go unfilled between 2018 and 2028.



BLOCKCHAIN • Due to a lack of technology standards and real-world testing, the **regulatory and legal implications of blockchain are unclear.**



TARIFFS • Experts estimate that tariffs on imported raw materials like aluminum and steel cost U.S.-based manufacturing companies **nearly \$9 billion in 2018.**

DIRECT-TO-CONSUMER MODELS • Selling direct-to-consumer **shifts liabilities to manufacturers** that retailers normally accept, including cyber and GL exposures associated with running an e-commerce business.



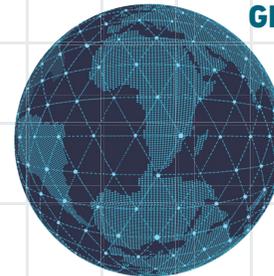
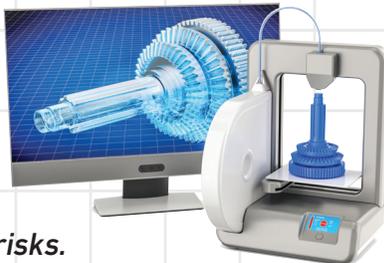
IP PROTECTION • Of 225 surveyed manufacturing executives, **36% said protection of IP was a top concern**, especially in China, Russia, India, and Mexico, where regulatory protections are lax compared to the U.S.



LOW FREQUENCY

HIGH FREQUENCY

3D PRINTING • 3D printing **blurs the line** between product designer and product manufacturer and can introduce new intellectual property and product liability risks.

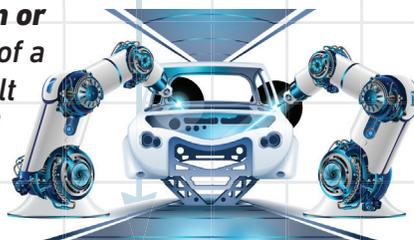


GLOBAL SUPPLY CHAINS • Global supply chains are **highly vulnerable to disruption**, which could interrupt production, damage reputation, and result in loss of market share.

"SMART" FACILITIES • IoT-connected equipment opens more doors for hackers. Through the first half of 2017, **31% of all cyber attacks on industrial control systems targeted the manufacturing sector.**



CO-BOTS • **Malfunction or incorrect programming** of a collaborative robot could result in product defects, increased safety risks and potentially business interruption.



LOW IMPACT