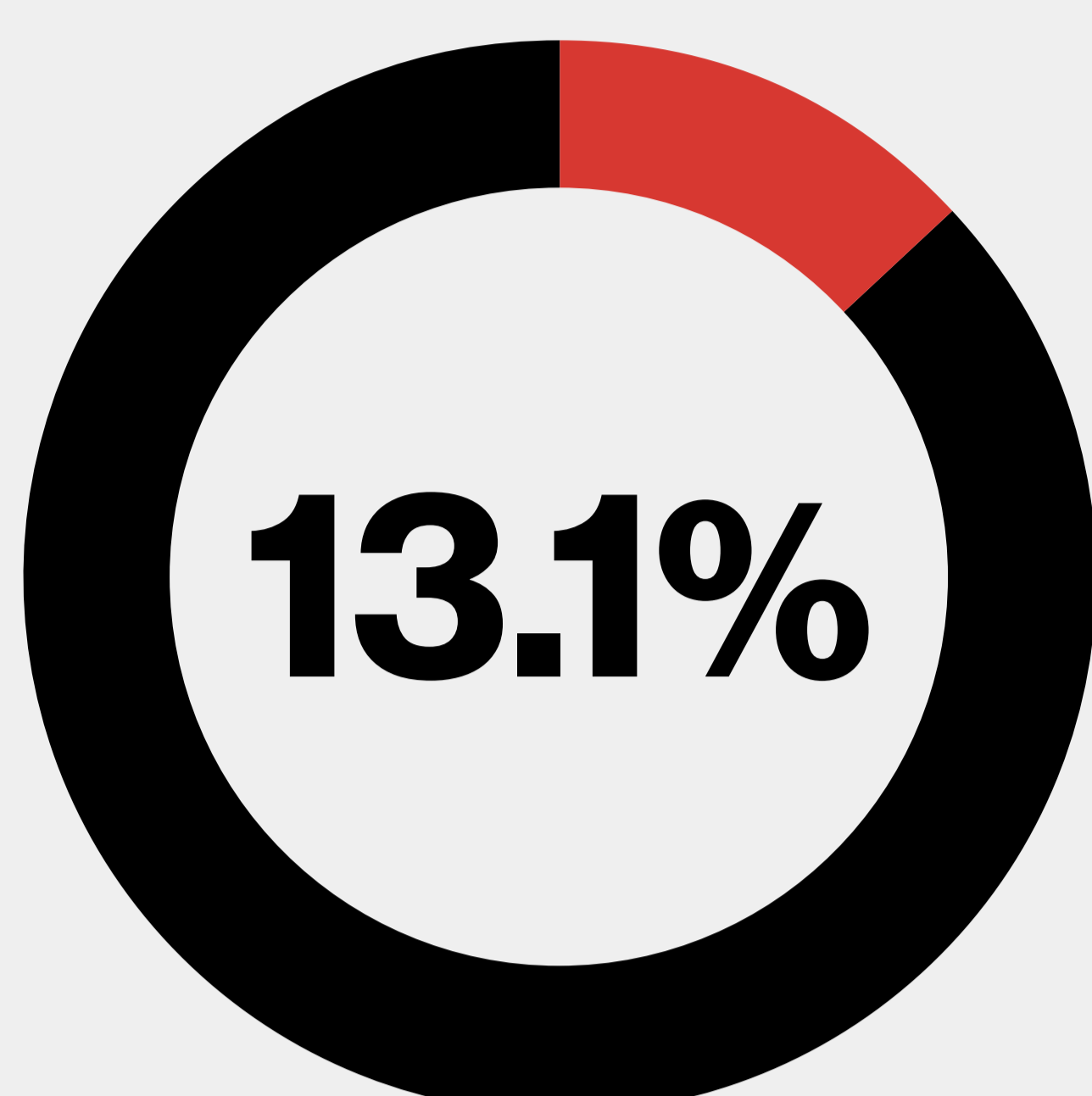




# The smart factory of the future

The traditional factory floor is evolving to drive the next generation of intelligent manufacturing. Forward-thinking manufacturers are using advanced technologies and network architectures to achieve Enterprise Intelligence to revolutionize the infrastructure, processes and data they rely on.



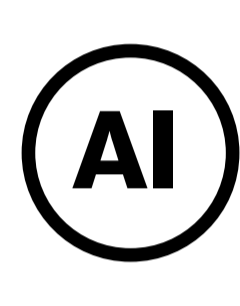
According to Fortune Business Insights, the global intelligent manufacturing market is expected to grow 13.1% annually and be worth \$658.41 billion in 2029 as manufacturers invest heavily in smart factories of the future.<sup>1</sup>

## 10 components of the smart factory of the future



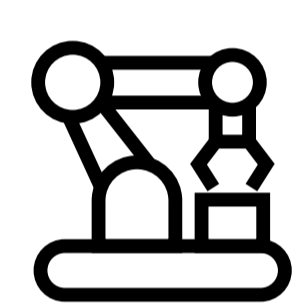
### 1. Industrial IoT:

With IoT devices and mobile edge computing (MEC), manufacturers can bring computing and processing power to the factory floor—enabling near real-time analytics, insights and actions.



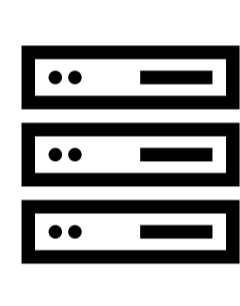
### 2. Artificial intelligence (AI) and machine learning (ML):

Intelligent manufacturing relies on AI and ML to integrate and analyze data to produce insights and predictions that can drive better decision-making.



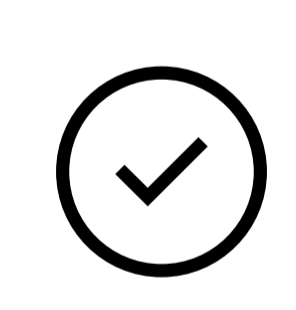
### 3. Robotics and automation:

Robots and automation already play a role in manufacturing, but advanced capabilities — catalyzed by 5G edge architecture, on-site computing and data processing—allow for near real-time decision-making, even in complicated, unstructured environments. Robots with machine vision can improve factory efficiency by spotting product defects before the products leave the factory.



### 4. Private MEC:

5G edge architectures can enable manufacturers to reduce (or eliminate) the amount of data they send to the cloud, improving performance and security. Manufacturing facilities can also stay online and minimize disruption due to central network or cloud outages.



### 5. Authentication:

Identity and access management safeguards can help manufacturers know who's accessing what, when and where.



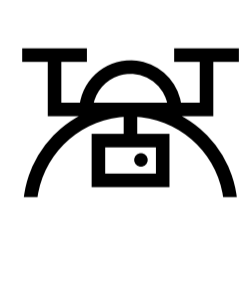
### 6. Wireless sensor networks (WSNs):

Connected factories use WSNs to record environmental changes and enable data transmission among IoT devices and the cloud.



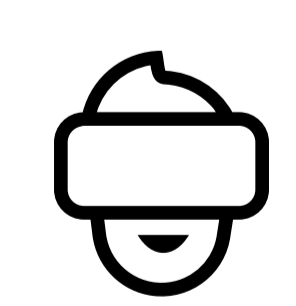
### 7. Digital twins:

A virtual model of physical objects and devices, or "digital twin," allows manufacturers to experiment, test and optimize the digital twin before changing the physical operation.



### 8. Drones:

Drones can be used by manufacturers for transport, data collection, training, communication, safety and compliance.



### 9. Extended reality:

Augmented and virtual reality help enable remote equipment maintenance and faster employee onboarding and training.



### 10. Private 5G Wireless:

Private 5G Wireless is the technical powerhouse that brings IoT, mobile edge architectures, advanced analytics and automation to life—enabling the rapid transmission and processing of vast amounts of data on the factory floor.



Discover how Verizon 5G Edge is helping to build and power the smart factory of the future—today.



<sup>1</sup> Fortune Business Insights, Smart Manufacturing Market, March 2022.