IT and Digitalization

**Companies' Move toward Data Collaboration**  
Companies are starting to realize that collaborating and sharing data make data an increasingly valuable resource. [Scan SoC1137](http://www.strategicbusinessinsights.com/scan/SoC/SoC1137.shtml).

**When Computers Say "Maybe"**  
Machine-learning systems that rely on big data make probabilistic judgments and are sometimes wrong. Organizations that are using machine learning need to manage this uncertainty. [Explorer Technology Big Data](http://www.strategicbusinessinsights.com/explorer/bgd/bgd-2020-02.shtml).

**Open versus Private Communications in Collaboration Tools**  
A recent article illustrates how workplace policies regarding collaboration tools that aim to provide transparency to employees can inadvertently create a toxic work environment. [Explorer Technology Collaboration Tools](http://www.strategicbusinessinsights.com/explorer/ct/ct-2020-02.shtml#2).

**Automation's Effects on Labor**  
Automation could be responsible for slow wage growth and employee displacement. [Scan Pattern P1460](http://www.strategicbusinessinsights.com/scan/patterns/P1460.shtml).

Life Sciences and Health-Care

**Screening of Sexually Transmitted Diseases**  
A new platform that provides accurate diagnosis of two common sexually transmitted diseases in 30 minutes could help decrease the spread of these infections. [Explorer Technology Biosensors](http://www.strategicbusinessinsights.com/explorer/bs/bs-2020-02.shtml#2).

**Genome-Wide Association Studies of Tomatoes**  
Researchers are identifying the small variations in the genomes of tomato plants that enhance or diminish traits such as taste and nutritional value, largely lost over decades of breeding or genomic modification to domesticate the tomato and enable higher fruit yields, longevity, and ease of long-distance transport to consumers. [Explorer Technology Biocatalysis](http://www.strategicbusinessinsights.com/explorer/bc/bc-2020-02.shtml).

**Metal-Nanodroplet Antimicrobials**  
Given the current shortage of new antimicrobials, new treatments that instigate bacterial-cell death by mechanical means are likely to be highly desirable in the global fight against antimicrobial resistance. [Explorer Technology Nanobiotechnology](http://www.strategicbusinessinsights.com/explorer/nb/nb-2020-02.shtml).

**Hearables for Health**  
Hearable manufacturers are showing increased interest in hearing aid and other health features, and they are blurring the line between hearables and hearing-aid devices. [Explorer Technology User Interfaces](http://www.strategicbusinessinsights.com/explorer/ui/ui-2020-02.shtml).

Energy and Environment

**Speculative Energy Solutions**  
New types of energy generation and energy-storage alternatives could provide an important impetus to accelerate the shift away from the use of fossil energy. [Scan SoC1142](http://www.strategicbusinessinsights.com/scan/SoC/SoC1142.shtml).

**Lithium-Sulfur Batteries Nearing Commercialization**  
Li-S batteries are an emerging technology that has potential to deliver higher energy density, lower costs, lighter weight, and improved safety relative to the potential of Li-ion batteries. [Explorer Technology Energy Storage](http://www.strategicbusinessinsights.com/explorer/es/es-2020-02.shtml).

**Shape of the Global Fuel-Cell Market?**  
Fuel-cell sales may be stagnating in North America, but other regions are experiencing considerable growth. [Explorer Technology Fuel Cells](http://www.strategicbusinessinsights.com/explorer/fc/fc-2020-02.shtml).

**Offshore-Wind Hub Emerging in Massachusetts**  
The US offshore-wind-power sector is on the cusp of dramatic growth. Massachusetts is leading the way with strong supportive policies and infrastructure development. [Renewable Energy Technologies](http://www.strategicbusinessinsights.com/explorer/ret/ret-2020-02.shtml).

Materials and Manufacturing

**Advances in 3D-Printed Glass**  
Silica-infused photopolymer resins promise to make glass feedstocks compatible with a number of conventional 3D-printing processes. [Explorer Technology 3D Printing](http://www.strategicbusinessinsights.com/explorer/3dp/3dp-2020-02.shtml#2).

**The Threat of Greenwashing**  
In the wake of an increasing number of big players pledging new strategies to push away from fossil-fuel plastics, a new Greenpeace report highlights that these new strategies could mislead about the scale of environmental benefits they deliver. [Explorer Technology Biopolymers](http://www.strategicbusinessinsights.com/explorer/bp/bp-2020-02.shtml).

**Automated Robotic Platform for Polymer Design**  
The growing use of automated technologies for polymer design and discovery is beginning to generate much interest. Researchers can use such technologies to design new polymers and enable manufacturers to develop novel products or to improve existing ones that can reach customers in a variety of industries in less time. [Explorer Technology Engineering Polymers](http://www.strategicbusinessinsights.com/explorer/ep/ep-2020-02.shtml).

**Nissan Demonstrates New Acoustic Metamaterial**  
Nissan has demonstrated what is likely to be the first commercially deployed acoustic metamaterial. Acoustic metamaterials are new materials for soundproofing and will likely find applications across many industries. [Explorer Technology Smart Materials](http://www.strategicbusinessinsights.com/explorer/sm/sm-2020-02.shtml).

Sensors and Electronics

**Progress for Printed Electronics**  
Players have reported recent technical and commercialization progress toward producing electronic circuits made of ink. [Explorer Technology Organic Electronics](http://www.strategicbusinessinsights.com/explorer/oe/oe-2020-02.shtml).

**Diagnosing Machines Using Acoustics**  
Some industrial engineers attach vibration sensors to electric motors to monitor the equipment's condition, and a few research-and-development engineers troubleshoot prototype equipment with use of microphones that mount nearby. Sooner or later, similar systems could see use in residential settings and auto-repair shops. [Explorer Technology Smart and Networked Sensors](http://www.strategicbusinessinsights.com/explorer/sns/sns-2020-02.shtml#2).

**6 GHz Wi-Fi**  
Regulators are considering opening 6 GHz spectrum to unlicensed communications, particularly Wi-Fi. Such a move could be a boon for operators of Wi-Fi networks--but push back from existing users of 6 GHz spectrum and cellular stakeholders could slow rule making. [Explorer Technology Internet of Things](http://www.strategicbusinessinsights.com/explorer/iot/iot-2020-02.shtml#2).

**Advances in Phase-Change Memory Devices**  
Researchers are finding new ways to bridge electrical and optical computing, potentially enabling a number of advances in AI, in-memory computing, data storage, and telecommunications. [Explorer Technology Nanoelectronics](http://www.strategicbusinessinsights.com/explorer/ne/ne-2020-02.shtml#2).

Connected Lifestyles

**Progress in AI for Content Moderation**  
Advances in AI promise to enable automated content-moderation tools that can fight misinformation and disinformation on various platforms and limit the distribution of violent content. [Explorer Technology Artificial Intelligence](http://www.strategicbusinessinsights.com/explorer/ai/ai-2020-02.shtml#2).

**Connected Home over IP**  
A new working group between significant players in the connected-home industry could lead to the development of a universal smart-home standard, which could simplify smart-home networks greatly. [Explorer Technology Internet of Things](http://www.strategicbusinessinsights.com/explorer/iot/iot-2020-02.shtml).

**Enablers of Smart Clothing**  
Smart-fashion products and various enabling technologies are steadily improving. [Scan SoC1138](http://www.strategicbusinessinsights.com/scan/SoC/SoC1138.shtml).

**Worldwide Competition for 5G Leadership**  
Availability of 5G service depends on widespread deployments of new infrastructure. Some nations are progressing much more quickly than others. [Explorer Technology Mobile Communications](http://www.strategicbusinessinsights.com/explorer/mc/mc-2020-02.shtml).