

## APPENDIX III. KEY TECHNOLOGY AREAS

The following twenty-one critical and emerging technology areas are of particular importance to the Department of Defense and the national security of the United States.

Advanced and Networked Sensors, Sensing, and Signature  
Advanced Manufacturing  
Advanced Materials  
Artificial Intelligence (AI)  
Biotechnologies  
Communication and Networking Technologies  
Computing and Software (Advanced)  
Cyber and Integrated Sensing  
Directed Energy  
Financial Technologies  
Future Generation Wireless Technology (FutureG)  
Gas Turbine Engine Technologies (Advanced)  
Human-Machine Interfaces  
Hypersonics  
Integrated Network Systems-of-Systems  
Microelectronics and Semiconductors  
Nuclear Energy Technologies (Advanced)  
Quantum Science including Quantum Information Technologies  
Renewable Energy Generation and Storage  
Robotics and Autonomous Systems  
Space Technologies and Systems

(Note: More information is available at <https://www.cto.mil/usdre-strat-vision-critical-tech-areas/> and <https://www.whitehouse.gov/wp-content/uploads/2022/02/02-2022-Critical-and-Emerging-Technologies-List-Update.pdf>.)