



EMERGING TECH RESEARCH

Vertical Snapshot: Defense Tech Update

VC trends, industry overview, and market landscape

2024

REPORT PREVIEW

The full report is available through the PitchBook Platform.

Published on July 5, 2024





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Institutional Research Group

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Published on July 5, 2024



Executive summary

- VC investment in defense tech remained steady from 2022 to 2023, with \$35.8 billion across 800 deals in 2022 and \$34.9 billion across 627 deals in 2023. So far in 2024, \$9.1 billion has been invested across 228 deals, contrasting with the broader VC market's decline and indicating the sector's robustness. Over the past 12 months, key investment areas included renewable energy generation & storage (\$4.4 billion); advanced computing & software (\$3.7 billion); sensing, connectivity & security (\$3.7 billion); and space technology (\$3.5 billion).
- Exit activity has been modest, with \$2.2 billion across 39 exits in 2023 and \$8.3 billion across 35 exits in 2024. M&A activity increased from \$4.6 billion across 56 deals in 2022 to \$9.3 billion across 53 deals in 2023. 2024 has seen \$5.2 billion across 36 deals, suggesting continued acquisitions by larger players to expand their product portfolios.
- In 2015, the Defense Innovation Unit (DIU) was established to integrate commercial technologies into national defense. Evolving from DIU 1.0 through DIU 3.0, it now focuses on scaling capabilities for strategic impact. In April 2023, the DIU was realigned to directly report to the secretary of defense, enhancing its influence. Fiscal year 2023 achievements include 33 new solicitations; 1,768 commercial proposals; 90 prototype contracts worth \$298 million; and a cumulative transition rate of 51%.¹ Notable projects span AI; drones; cyberthreat telemetry; and international collaborations with India, the UK, Australia, and Japan. The DIU also secured \$983 million in funding for fiscal year 2024—up from \$191 million in 2023.² The National Security Innovation Capital (NSIC) received \$35 million to support startups and attract private investments. The Office of Strategic Capital (OSC) released its fiscal year 2024 strategy, which focuses on component-level technologies, financial tools to attract private investment, and lending to minimize taxpayer burden, with priority areas in advanced materials, biotechnology, 5G, microelectronics, quantum science, renewable energy, and space technology.³
- The Department of Defense's (DoD's) National Defense Industrial Strategy highlights the need for innovation and venture capital to revitalize the US defense industrial base, especially in response to China's dominance in shipbuilding and microelectronics. Despite traditional contractor challenges, US manufacturing construction spending doubled to \$200 billion between 2022 and 2023,⁴ creating significant investor opportunities. Conflicts in Eastern Europe and the Middle East emphasize the need for a resilient defense industrial base, with the DoD investing in munitions production and expanding precision-guided munitions capacities to maintain technological superiority.
- The defense acquisition process is shifting toward more open and flexible approaches, as seen with the DIU's facilitation of over 450 contracts and the "Open" topics of the US Air Force's Small Business Innovation Research (SBIR) program. This encourages nontraditional defense contractors and startups to propose innovative solutions, boosting VC funding and integration into defense applications. The continuous threat environment, particularly from drones, necessitates rapid innovation, as seen with Epirus' high-power microwave system and the Army's investment in counter-drone technologies. This dynamic landscape presents opportunities for venture capital to engage with DoD modernization programs and global defense technology markets.

1: "The Defense Innovation Unit FY 2023 Annual Report," US Department of Defense, n.d., accessed June 17, 2024.

2: "Defense Innovation Unit Would Get Major Funding Boost in Spending Bill," C4ISRNet, Courtney Albon, March 21, 2024.

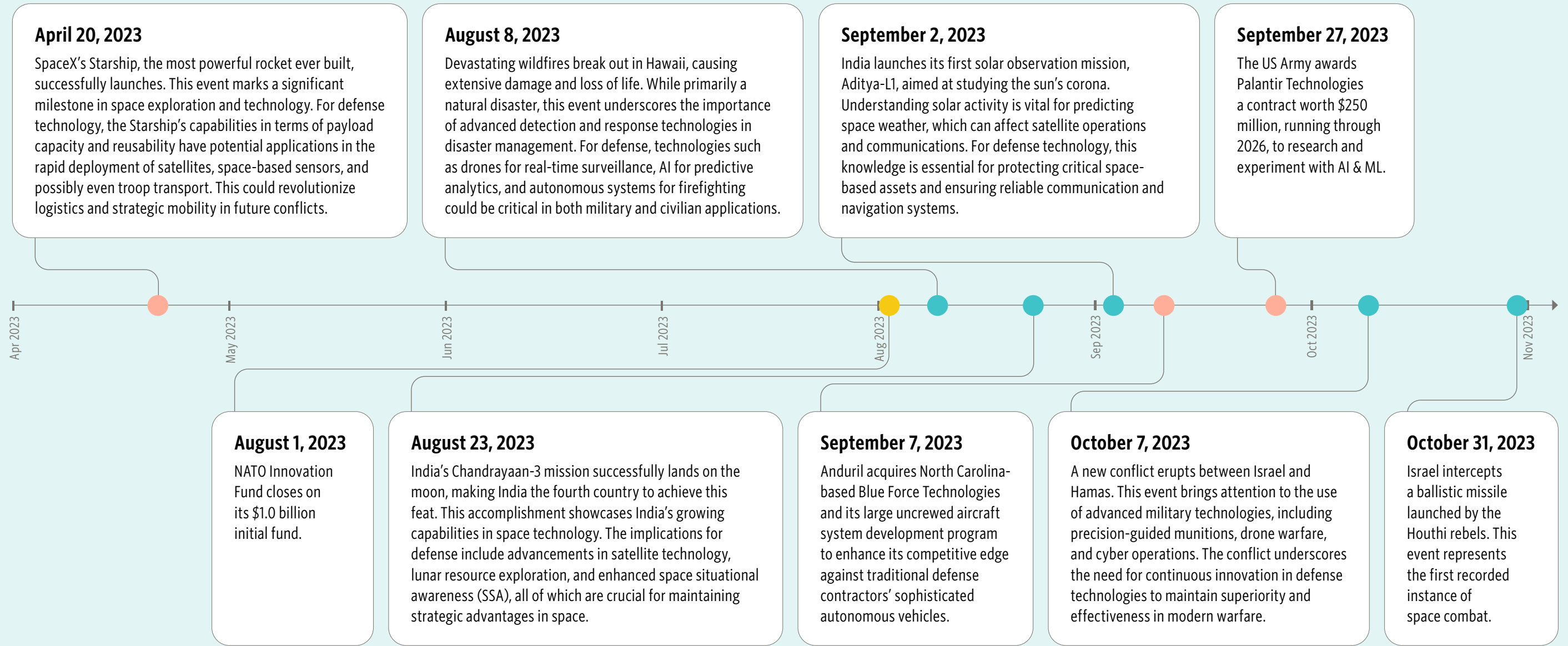
3: "Investment Strategy for the Office of Strategic Capital: Fiscal Year 2024," US Department of Defense, March 8, 2024.

4: "Total Construction Spending: Manufacturing in the United States," FRED, June 3, 2024.



Defense tech timeline

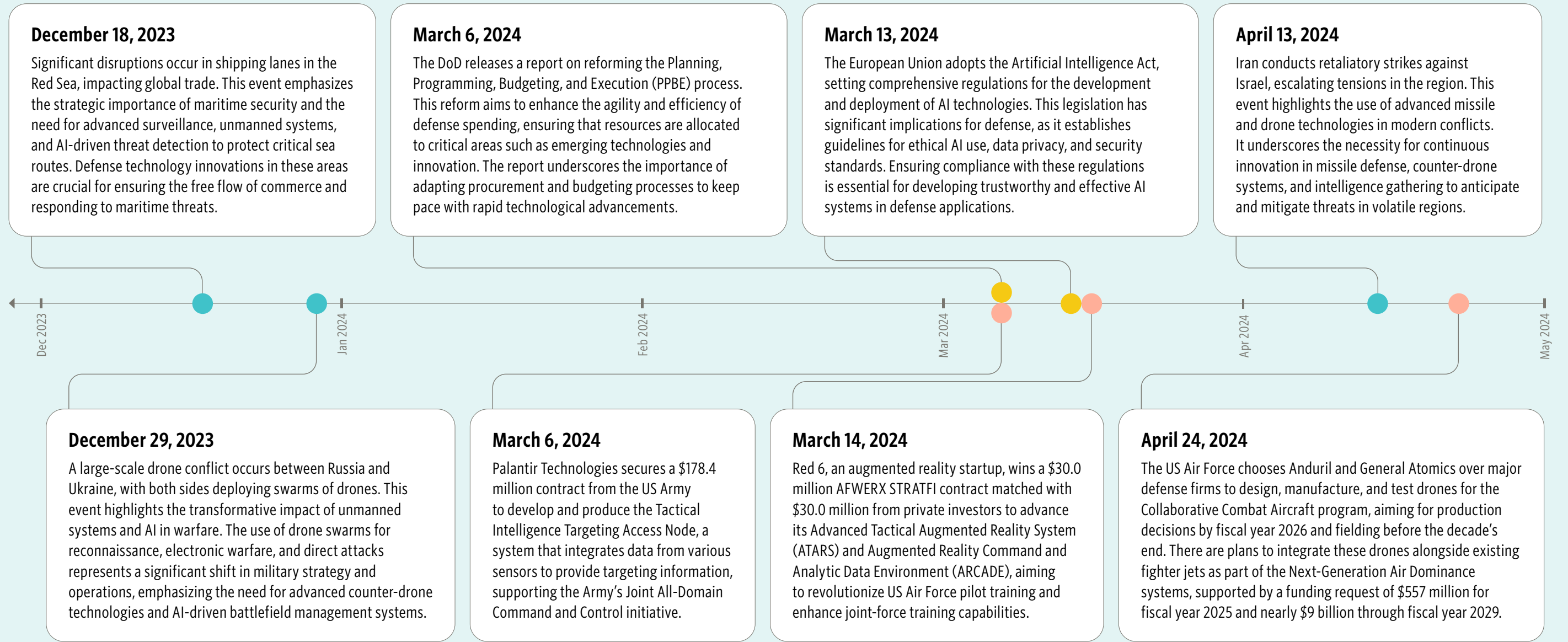
● Government initiatives ● Commercial events ● Geopolitical events





DEFENSE TECH TIMELINE

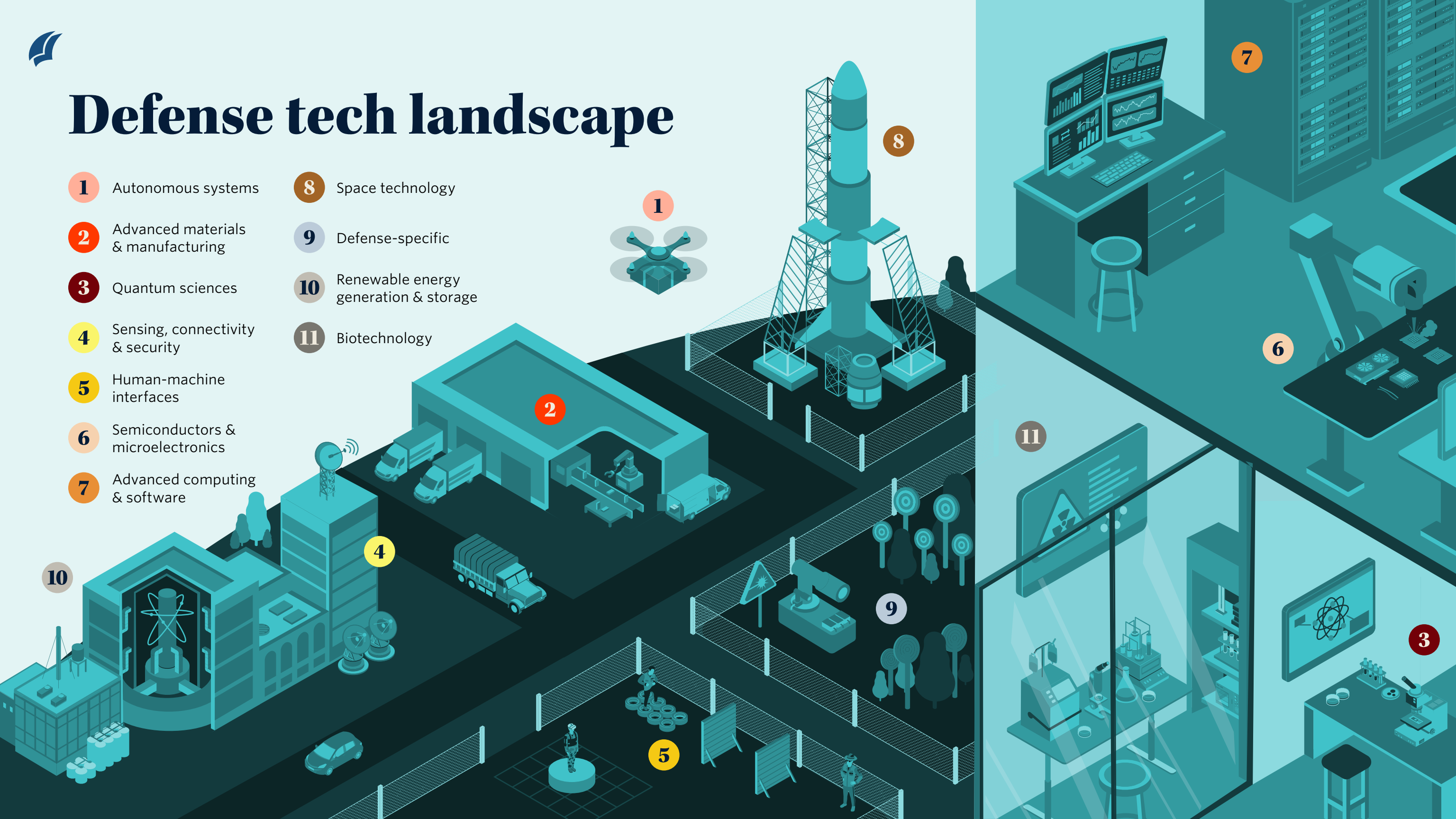
● Government initiatives ● Commercial events ● Geopolitical events





Defense tech landscape

- 1** Autonomous systems
- 2** Advanced materials & manufacturing
- 3** Quantum sciences
- 4** Sensing, connectivity & security
- 5** Human-machine interfaces
- 6** Semiconductors & microelectronics
- 7** Advanced computing & software
- 8** Space technology
- 9** Defense-specific
- 10** Renewable energy generation & storage
- 11** Biotechnology





Defense tech VC ecosystem market map

This market map is an overview of venture-backed or growth-stage companies that have received venture capital or other notable private investments.

1 Autonomous systems

Unmanned ground vehicles	Defense systems integration & optimization
Unmanned surface vehicles	Autonomous manufacturing
Unmanned aerial vehicles	Counter-unmanned aerial systems

2 Advanced materials & manufacturing

Additive manufacturing & maintenance	Advanced armor & structural materials
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3 Quantum sciences

Quantum sensing & networking	Post-quantum cryptography
Quantum computing	

4 Sensing, connectivity & security

Next-generation wireless networks	Information security
Advanced sensors	

5 Human-machine interfaces

Augmented & virtual reality	Wearable technology
Brain-computer interfaces	

6 Semiconductors & microelectronics

Semiconductors	Nanotechnology
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7 Advanced computing & software

Novel computing architectures	Development, security & operations
Data management & analysis	Supply chain management

8 Space technology

Satellite systems
Space launch, re-entry & navigation
In-space services

9 Defense-specific

Directed energy
Hypersonics

10 Renewable energy generation & storage

Alternative energy generation	Power systems
Advanced energy storage	

11 Biotechnology

Synthetic biology	Biodefense

About PitchBook Industry and Technology Research

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Our Industry and Technology Research provides detailed analysis of nascent tech sectors so you can better navigate the changing markets you operate in—and pursue new opportunities with confidence.

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