

SVDG NATSEC100

2024 EDITION

Sponsored by JPMorganChase



July 2024



Introduction

Silicon Valley Defense Group’s NATSEC100, *sponsored by JPMorganChase*, is our annual ranked list of leading venture-funded, national security-focused and dual-use startups. SVDG undertook the initiative and published our inaugural report last year to offer a data-driven snapshot in time of our emergent techno-security ecosystem—one which we believed and hoped would drive meaningful, if pointed, discourse about the state of the [Defense Industrial Base](#) (DIB) and broader [National Security Innovation Base](#) (NSIB).

Last year’s list achieved exactly what we hoped it would, sparking widespread discussion, [impassioned disagreement](#), and informed debate on the [Hill](#), in the [press](#), [among venture capitalists](#) (VC) and in closed policymaker conversations in which we had the privilege of participating. These conversations focused not just on the list itself but, much more importantly, on the state of what SVDG terms the [Emerging Tech Readiness Ecosystem](#) (“the Ecosystem”). The discussions generated policy positions and mid-term objectives for SVDG as well as some key learnings that we analyzed deeply and incorporated into this year’s approach.

KEY STATS

\$52.9B

Private Capital Raised to Date

\$21.8B

Federal Awards to Date*

\$6.3B

Department of Defense Awards to Date†

7.7

Years Average Company Age

19

States home to NATSEC100 Companies

*SpaceX accounts for 81% of all Federal awards
†SpaceX accounts for 65% of all DOD awards

The 2024 NATSEC100 list features **44 new companies**—a nearly 50% turnover from our inaugural 2023 list. The high turnover rate is almost certainly a product of two factors. First, this year we widened the aperture through which we assessed the universe of eligible NATSEC100 companies to include all venture-backed startups and non-trationals that have publicly available evidence of their technology’s use in a national security context. Accordingly, we included companies working in spaces not traditionally defined as “defense” (e.g., homeland security, intelligence, financial crimes, etc.). This very deliberate decision on our part was a nod to the absolutely myopic way in which our national defense has traditionally been defined, approached, and funded. **We hope that our expanded aperture drives additional conversation about and investment in the critical technologies and sectors over which and with which we**



could absolutely go to war, to include next-gen compute, EUV lithography, AI-enabled synthetic biology, renewable energy, and the like. Secondly, it is unsurprising that our 2024 list features substantial company turnover, given the unprecedented emergence of new venture-backed startups and the fact that private capital markets tend to quickly reward successful companies over less successful or slower-to-revenue competitors.

2023 Comparison		
New NATSEC100 companies		44
Most Improved Companies		
Company	2023 Rank	2024 Rank
 CESIUM ASTRO SPACE & DEFENSE SYSTEMS	97	34
 SECOND FRONT™	84	28
 X-BOW	77	27
 Snorkel	90	43
 AUTOMATION ANYWHERE	82	36
 Lambda	48	4
 FIREFLY AEROSPACE	58	17
 VARDA	99	75
 BigID	47	24
 NOZOMI NETWORKS	64	41

As of June 2024, **this year's NATSEC100 companies have collectively attracted over \$52 billion in private funding**, an aggregate increase of almost 20% over the \$42 billion raised by last year's cohort. Like last year, each company on the list is developing technology that is essential to the continued security of democracies around the globe, with each also backed by a sampling of the world's foremost venture capital firms. This year, we also felt it was important to strive to provide deeper insights into federal funding awarded to our NATSEC100 companies. The topline for the publicly available contracting data presents a troubling picture: despite raising over \$52 billion dollars in private funding, the 2024 NATSEC100 companies have only been awarded \$22 billion in federal funding, and only \$6 billion of that from the Department of Defense (DoD), where the roots of this project and of our organization began. Perhaps even more strikingly, **81% of the total amount awarded by the United States Government, and 65% of the DoD-awarded funding, went to a single company, SpaceX**, which earned our #1 spot for the second consecutive year.

These topline disparities are problematic for a variety of reasons. As SVDG [shared](#) last year, having a robust 'catalog' of new, leading-edge technologies and capabilities that can be rapidly accessed by national security buyers is critical in an increasingly unstable geopolitical landscape. Although the combination of the United States' entrepreneurial spirit and private capital markets arguably makes us best-positioned to develop such a catalog, and therefore offers a competitive advantage over our adversaries, the lack of a clear demand signal and



significant, sustained (meaningful) revenue from both the federal government and channel partners may well preclude quality founders, engineers, and investors from participating in the national security market altogether. On the other hand—and much to the group's surprise given the near-constant drip of doom & gloom conference panel comments, snarky LinkedIn posts, and Congressional testimony—several of the other important metrics and indicators we examined (outside of the abysmal topline investment comparison) are trending increasingly positively and paint a different picture than we assumed they might.

We at SVDG remain hopeful that the former scenario does not come to pass, and that—in contrast—the positively trending indicators we are beginning to see with respect to the Ecosystem (to be covered in later sections of this report) continue in ways that allow for the realization of our vision of ETR. And while this list is by no means a perfect encapsulation of the Ecosystem, we hope that—at minimum—it provides that data-driven foundation for the important dialogue we must continue to have loudly, honestly, and publicly.



In a world where every aspect of technology impacts and is impacted by geopolitics, it is ingenuity rather than simple military might that will determine a nation's security. Investing in our emerging tech startup ecosystem isn't a financial decision—it's a strategic imperative. The innovations born in these crucibles of creativity and resilience will underwrite our defense capabilities and ensure that we remain at the forefront of technological supremacy.

- Dr. Chris Miller,
Author of *Chip War: The Fight for the World's Most
Critical Technology*



Methodology

In collaboration with [Franklin Templeton](#) and [Balyasny Asset Management](#), SVDG developed a proprietary, quantitative formula to assemble the NATSEC100 list. We then stress tested our formula against a number of different scenarios for completeness and robustness. After comparing the most relevant frameworks and engaging in multiple conversations with technology leaders across the U.S. Government and allied partner governments, we elected to categorize the list of NATSEC100 companies against [DoD's 14 Critical Technology Areas](#), as published by the Under Secretary of Defense for Research and Engineering (USD(R&E)) who serves as the CTO of the Department. As previously stated, all venture-backed companies that have demonstrated their technology's applicability within the national security market were eligible for ranking. Publicly-traded companies, and startups that have been acquired by publicly-traded companies, were not eligible for consideration. ***The ranking reflects weighted, quantitative factors that allow us to analyze each company in a relatively comparable way, irrespective of sector, growth stage, hardware v. software, etc.***

Specifically, we analyzed headcount growth, total capital raised, and fundraising momentum, to assign a weighted score to each company. These criteria are by no means perfect benchmarks for determining a company's capacity for ultimate success in the Ecosystem, much less its success year-over-year, as evidenced by the changes from our inaugural list to today's. Rather, considered in aggregate, these one hundred companies present a paradigmatic sample of leading startups that *should be* particularly well-positioned to deliver critically-needed capabilities to the U.S. national security apparatus and those of our allied partners. Collectively they indicate momentum within the world of venture-backed growth and provide a reasonable foundation upon which to explore the state of the Ecosystem.

To preserve our capacity to fairly compare our inaugural NATSEC100 to the 2024 list, we kept the base formula used to determine the final rankings, consistent. However, we made the decision to increase the sensitivity of our headcount growth scoring rubric, to promote a greater diversity of scores amongst this year's cohort of eligible companies—i.e., to mitigate against multiple tied scores. The would-be ties are attributable to the fact that headcount growth slowed dramatically (by about half) compared to last year, which we largely ascribe to startups continuing to recalibrate their businesses in a high-interest rate environment.



Facts & Figures: Location

The 2024 NATSEC100 companies are headquartered in 19 states across the USA, with the majority of the list—54 companies— calling California home.



The Top 10 NATSEC100 cities housing these companies span four states, including California (led by San Francisco with 13 companies); New York City, New York; Boston, Massachusetts; and Austin, Texas. In California, a majority of the companies are in the Bay Area, with a sizable contingent headquartered in SoCal—most notably El Segundo and San Diego.

More companies on this year's list are headquartered in California, New York, Massachusetts, and Texas, while previously healthier emerging tech startup home states like Colorado, Virginia, and Washington have lost listshare. The change in Colorado-based companies on the list is seemingly a direct result of the consolidation of a few space companies featured on the 2023 list – a decline that will be further explored in the next

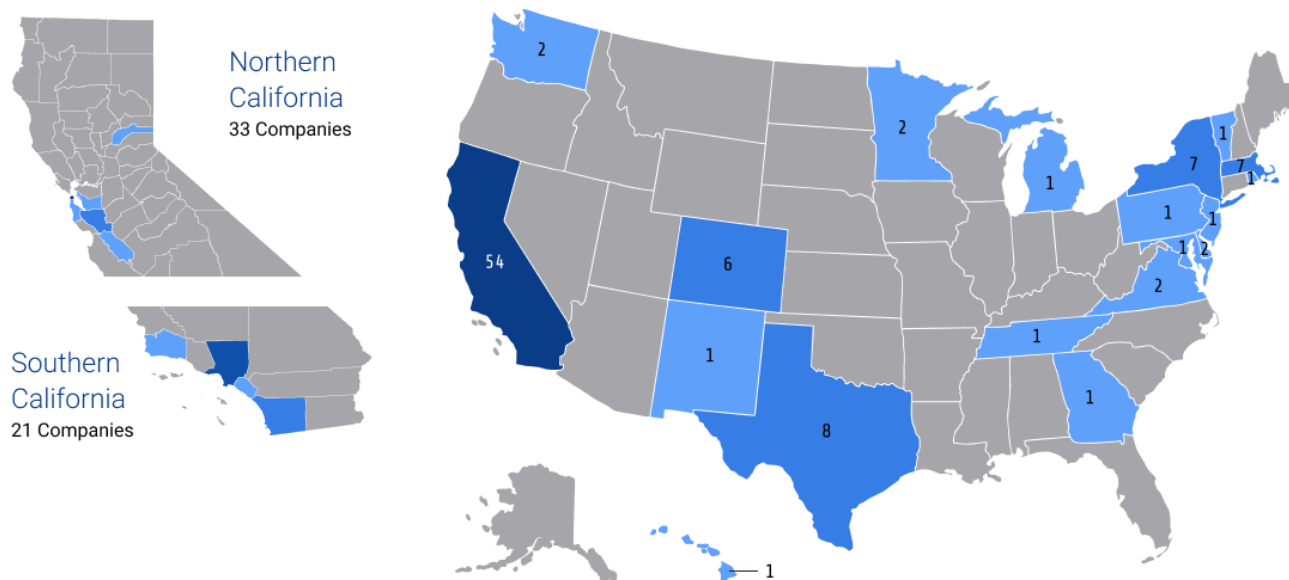
section. It should also be interesting to look back next year to see how the recently announced investments in a different but equally hot NatSec tech sector—quantum technology—in [Colorado](#) in particular, but also [Illinois](#), will impact the 2025 NATSEC100.

In California, a larger percentage of 2024 NATSEC100 companies are based in the southern part of the state than on the 2023 list. Our friends at the Boston Consulting Group [seem to have called](#) this potential migration a few years back; the already favorable conditions combined with recent increases to the healthy U.S. defense budget, a boom in commercial aircraft orders the likes of which we have not seen since the 1980s, and a wave of new aerospace, defense, and AI/autonomy contracts requiring highly-skilled engineers have catalyzed the trend, adding the term "[the Gundo](#)" to the national security lexicon—for better or worse.



California's substantial lead in developing NATSEC100 companies may be surprising to those not actively engaged in the emerging technology ecosystem, especially given [high-profile stories](#) from several years ago regarding Silicon Valley's hesitancy to contract with the government, especially DoD. However, as SVDG advisor and 8-time entrepreneur Steve Blank notes in the "[Secret History of Silicon Valley](#)", the technological innovation and entrepreneurial spirit associated with this part of California actually has its roots deeply intertwined with the Department of Defense. Emboldened and amplified by the trajectories of non-traditional defense tech first-movers like [Palantir](#) and [Anduril](#), Silicon Valley's sentiment towards DOD and broader government engagement appears to have shifted in a more positive direction, in line with the geography's origin story. How meaningfully that sentiment is being echoed (or returned) by the USG is discussed at length in later sections.

NATSEC100 by State





Facts & Figures: Technology Areas



Second Front's mission is ensuring that the United States and our allies have rapid and secure access to the most cutting-edge and disruptive software. The quality of this year's NATSEC100 represents an important signal that the partnership between the private and public sectors is as strong as ever at this critical moment in national security.

- Tyler Sweatt,
Chief Executive Officer, Second Front Systems

both [explosive demand](#) for commercial use cases, particularly with respect to generative AI, and the [near-constant regulatory focus](#) on the category, across the globe. The abundance of companies developing these technologies also aligns well with both the Defense Innovation Unit's [Replicator Initiative](#), which aims to field "all-domain attritable autonomous systems (ADA2) to warfighters at a scale of multiple thousands," and the [Collaborative Combat Aircraft \(CCA\) program](#), which is an effort to develop crewed and uncrewed systems that will advance air superiority efforts as part of the U.S. Air Force's Next Generation Air Dominance (NGAD) Family of Systems. Together, these two initiatives, which recently announced their respective [tranche of first capabilities](#) and [production-representative development awards](#), will be a critical

As previously mentioned, for this year's report, we elected to categorize the 2024 NATSEC100 companies according to OUSD(R&E)'s [14 Critical Technology Areas](#). While not a perfect framework, R&E's mission is to "*champion research, science, technology, engineering, and innovation to maintain the United States military's technological advantage.*" As such, and given the stated aims of this report, it provides a highly relevant lens through which to evaluate the list.

Advanced Computing and Software remains the most dominant technology area amongst this year's group of companies, with over 33% of the list developing tech in this category. While *Space Technology* was the second highest technology area in our inaugural NATSEC100, this year the category is tied for second with *Trusted AI and Autonomy*, with both tech categories being developed by approximately 25% of this year's group.

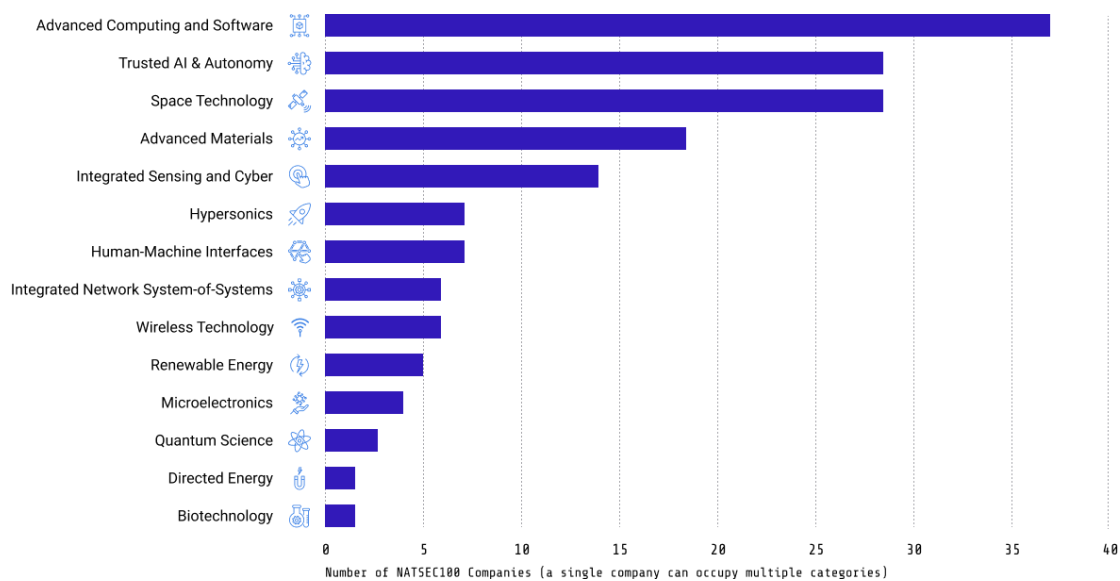
The increase in *Trusted AI & Autonomy* companies is consistent with the recent [spike in private capital investment](#) in these areas across the startup landscape that is likely being fueled by



and highly-scrutinized test of the Department’s capacity to leverage new tech, developed by both traditional and non-traditional suppliers, to field a new, innovative operational capability at scale.

The slight decline in overall representation of space companies in the 2024 NATSEC100 can be partly attributed to the continued maturation of that industry, and the evolution of the broader Ecosystem. For instance, two 2023 companies, [Spaceflight Industries](#) and [Orbital Insight](#), have since been acquired by two other 2024 NATSEC100 companies--[Firefly Aerospace](#) (#17), and [Privateer](#) (#30)--respectively. This is illustrative of overarching industry trends wherein mergers and acquisitions are beginning to play a larger role within the Ecosystem. Other examples include Anduril’s (#2) recent acquisitions of [Blue Force Technologies](#) and [Adranos](#). While extreme levels of industry consolidation played a large role in the traditional Defense Industrial Base’s development over the last half century, mergers and acquisitions are nevertheless part of a healthy marketplace. These transactions promote better intra-industry collaboration, provide additional entrypoints for new technologies to be fielded by the USG and our allied partners, and present exit opportunities for founders and investors to counter the typically long time horizon to meaningful government revenue.

2024 NATSEC100 Tech Categories (R&E Critical Tech Areas)

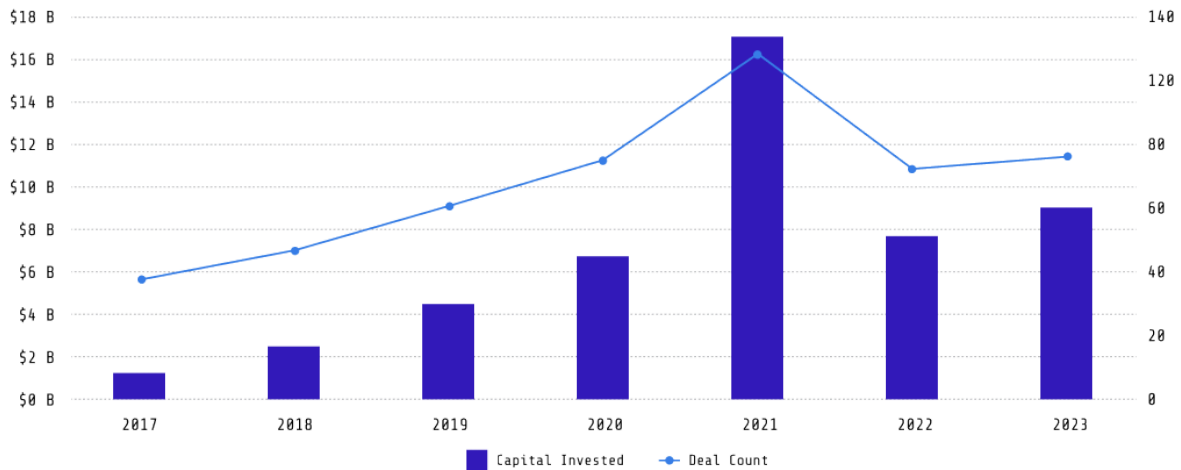




Facts & Figures: Private Investment

The Top 2024 NATSEC100 Venture Investors once again feature an eclectic group of mission-focused funds, prolific volume investors, corporate venture capital (CVC) firms, and leading traditional VC firms. [In-Q-Tel](#), the nonprofit venture capital firm chartered by the Central Intelligence Agency, leads this year's Top Venture Investors for the second consecutive year, having invested in over 33% of the 2024 NATSEC100 companies.

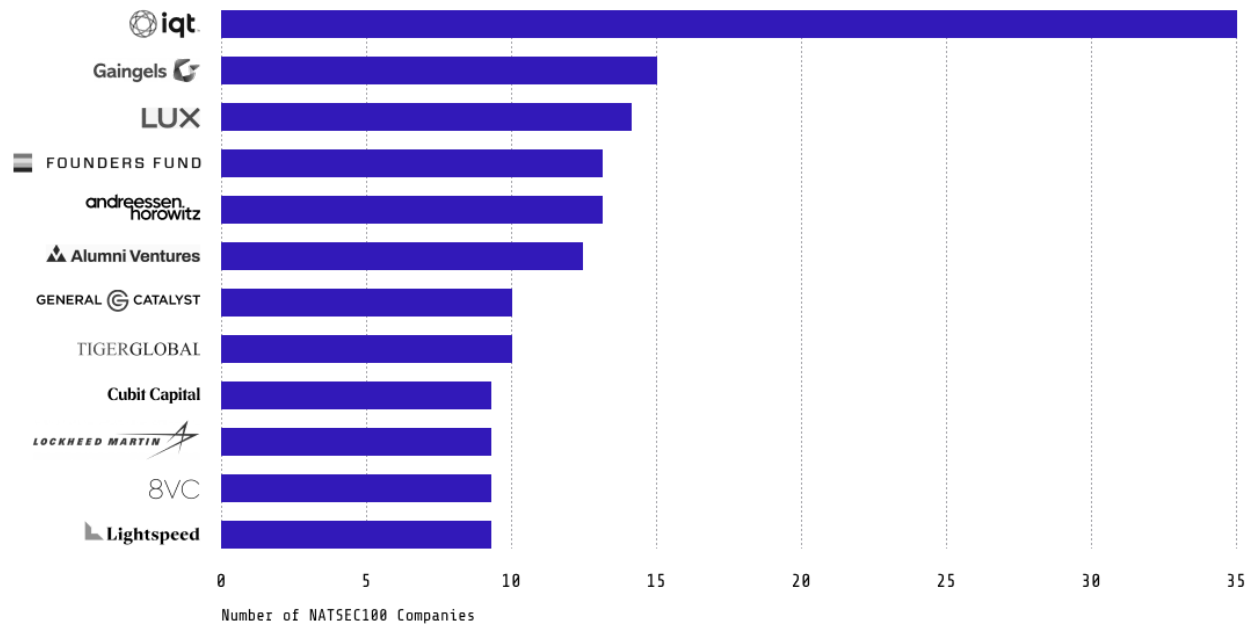
2024 NATSEC100 Deal Count and Capital Invested by Year



Prolific volume investors [Gaingels](#) and [Alumni Ventures](#) also reprise their appearances on this year's Top Venture Investors list. And [Lockheed Martin Ventures](#) retained its position as the top CVC amongst leading NATSEC100 venture investors this year as well.



Top 2024 NATSEC100 VC Investors



[Lux Capital](#), [Founders Fund](#), and [Andreessen Horowitz](#) are all traditional venture capital firms that not only appear on the 2024 Top NATSEC100 Venture Investors list for the second year in a row, but have also invested in additional NATSEC100 companies in the 2024 cohort compared to last year's group. Moreover, the 2024 Top Venture Investors feature several new entrants, including [General Catalyst](#), [Cubit Capital](#), [8VC](#), and [Lightspeed Ventures](#).

Examining the overall trend in private capital invested into NATSEC100 companies over the last several years, it appears that 2021 was an outlier on an otherwise upward trajectory, starting in 2017. This anomaly is likely due to the fact that the pandemic era's [low interest rate environment](#) led to an overall increase in private investment—including both venture capital and private equity—across the startup ecosystem. Whether or not this trajectory is sustainable is unclear at this point in time, but 2024 data is somewhat discouraging. The total annual investment into NATSEC100 companies through June 15th, 2024 is approximately \$4.5 billion, and while several small and large deals could potentially buoy that number past last year's \$9.1 billion total raised, in the face of uncertain macroeconomic headwinds (and [unprecedented numbers](#) of geopolitical standing-shifting elections), there are no guarantees. As will be explored throughout the next section, the government's ability to send clear, positive demand signals (backed over time by actual, meaningful production contracts) is a crucial component of ensuring reliable private capital investment across the Ecosystem.



We're honored to again be recognized as the leader in the vital mission of Global Security Investing. Since we were founded in 1999, we've pioneered investment in innovative startup technologies that help secure America and its allies—and we fully intend to lead this mission for the next quarter century and beyond.

— Steve Bowsher,
CEO of IQT

Facts & Figures: Federal Government Awards

As previously mentioned, in the development of this year's report we decided to dig into as much of the government award data as we possibly could, given the very real reporting and transparency constraints. In our inaugural report, SVDG's top policy recommendation was "Better Reporting Metrics." We noted the importance of tracking beneficiaries of leading innovation components' programs and flexible funding pathways ([QTAs](#), APFIT [grants](#), Title III/Defense Production Act [award recipients](#), and the like) to more fulsomely understand and assess Ecosystem progress as well as the efficacy of programs designed to enable such progress. As an organization, SVDG has endeavored to do just this via a multitude of

relevant [webinars](#), policy round tables, and salon dinners, bringing in experts from each program and component to engage with industry and private capital leaders. But in so doing and—especially as we worked to collect key government award data for this year's report—we became even more cognizant of the significant limitations that remain. SVDG believes this lack of detailed transparency remains one of the biggest challenges facing new entrants, non-traditionals and national security-minded VCs.

With that context, in reviewing government awards to our 2024 NatSec100 companies, it's important to note several things. The data provided purportedly encompasses all

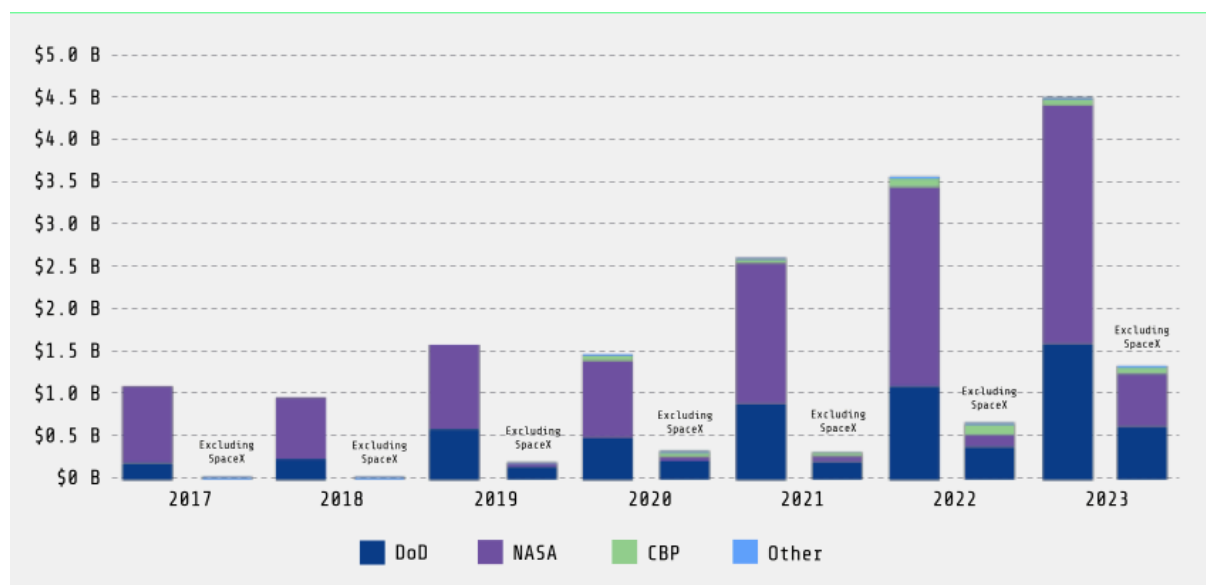


prime and sub awards received by these companies, excluding classified awards and revenue from channel partnerships or subcontracts that are not required to be reported. This distinction implies that the actual amount awarded may exceed what is reflected. Importantly, *given what we know we don't know*, those deviations in award amounts might be marginal but they might be significant, and without a full picture of the data, we simply could not even predict which is the case.

As represented below, SpaceX's significant dominance in government awards underscores its elevation to "prime contractor" status within the space industry. Conversely, awards to non-SpaceX entities highlight disparities in funding awards relative to overall investor capital raised. This

raises real questions about return expectations from investors vis-à-vis current government revenue streams. The topline award numbers without SpaceX are troubling to say the least. The question (and watch area for SVDG over the next 12-24 months or so) is: is the USG playing "innovation theater" or are there legitimately several SpaceX's in the wings, getting ready to take their rightful places in the Ecosystem across additional technology areas? And while we might be encouraged by the recent aforementioned awards to such potential next-generation SpaceX's as Anduril and Palantir, the next question the data forces us to ask ourselves is whether—in spite of the relatively positive story that the chart on pricing structure tells, wherein almost 90% of the awards are fixed price—this is merely a coincidence and one wherein the trajectory is about to take a turn.

Federal Government Awards to All NATSEC100 Companies





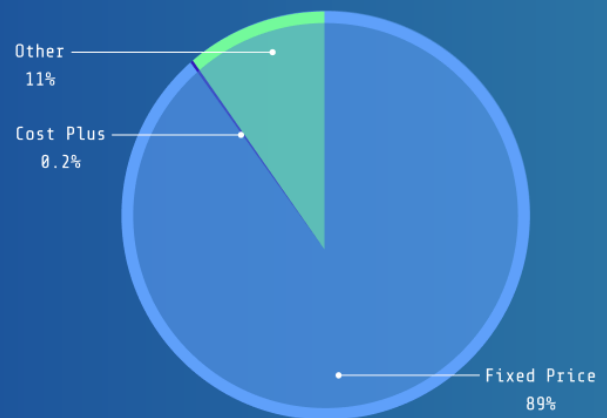
Pricing Structure

It is widely understood in industry that fixed price contracts provide clarity to taxpayers and investors alike while mitigating risks associated with cost-plus arrangements, by avoiding locked profit margins and incentivizing timely project completion rather than delays.

Our concern stems primarily from the U.S. Army's recent issuance of a new [Army regulation](#) titled, Army Directive 2024-02 (Enabling Modern Software Development and Acquisition Practices). The memo stipulates that "Cost-reimbursement-type, labor hour, incentive and/or hybrid contract clauses and provisions for the software development activities of an effort should be used to the maximum extent possible [while] firm fixed price-type contract clauses and provisions will be minimized for software development activities."

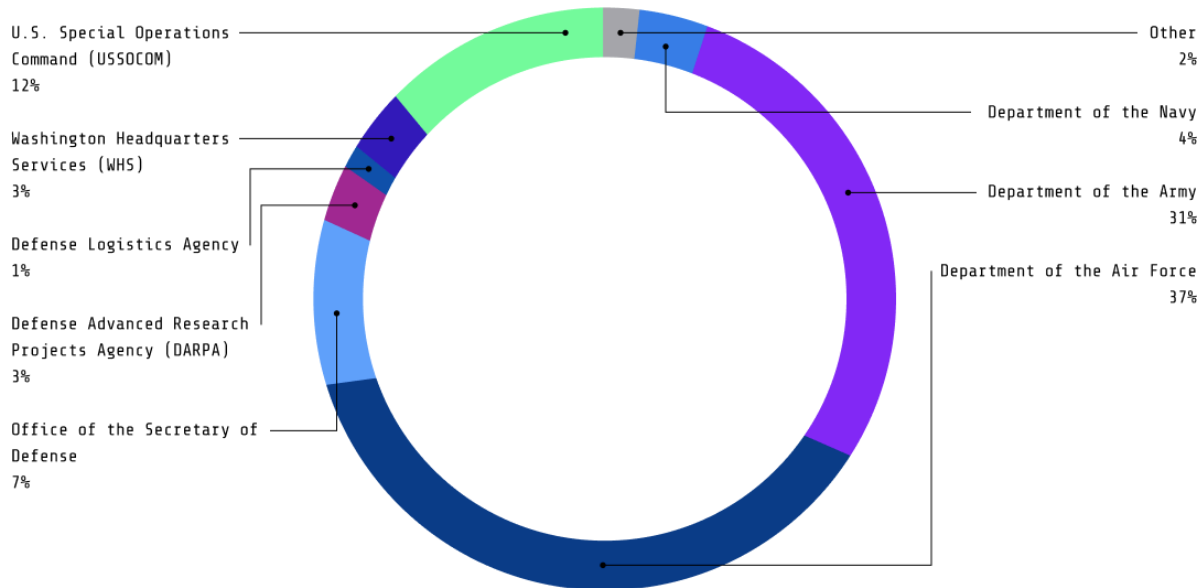
SVDG is aligned in its views with those of our partners at the [Software in Defense Coalition](#), [Alliance for Digital Innovation](#), [Alliance for Commercial Technology in Government](#), and the [National Venture Capital Association](#). We believe the government should—to the maximum extent possible—leverage outcome-based contracting that defines payments, incentives, and contract structures on the basis of capability intent rather than the underlying development process. This requires clear statements of work with clear milestones that outline required deliverables, performance metrics, and fielding objectives. The Army's recent decision to reverse course on a positive contracting trend in terms of pricing structure raises questions about its actual understanding of the incentives and revenue cycles of the new and non-traditional members of the Ecosystem and—particularly, given its prominent 2nd place spot in the totality of DoD component spending—is a watch item for SVDG, implications for the Ecosystem, and next year's NATSEC100.

NATSEC100 Pricing Structure
(Total Value of Awards)





DOD Spending by Component (Not including SpaceX)



FAR vs. Non-FAR Contracts

DoD's use of non-Federal Acquisition Regulation (FAR)-based contracting methods to procure innovative technologies appears to be used more frequently than in other federal agencies and departments. This may be due in part to which Departments and Agencies have the authority to use such non-FAR-based vehicles as Other Transaction Authorities (OTA) and which don't, but may also simply be a function of the fact the DoD in particular is under a tremendous amount of pressure to leverage the totality of contracting vehicles and authorities which Congress has authorized it to use and it is now (rightly or wrongly) over-indexing on non-FAR-based methods that seem, and may indeed be, faster and more flexible than simply sufficiently educating, arming, and appropriately incentivizing its contracting officials/acquisition corps.

Even so, non-FAR-based contracts still constitute only a quarter of DoD's overall contracting efforts, suggesting room for expanded adoption to accelerate procurement processes, should this continue to be seen as the most effective way of achieving the desired ends.

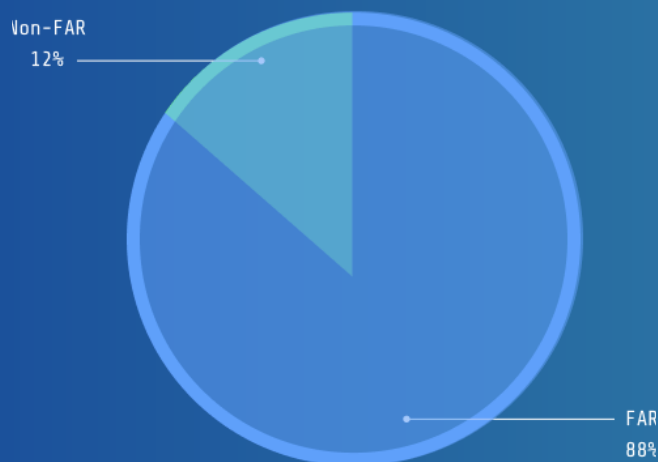


As we initially scrutinized this data and the positive story it seemed to be telling, we worked under the assumption that a preponderance of FAR-based contracts for these types of non-traditionals and VC-backed startups was a good thing, signaling that the government is actually leveraging the contracting vehicles, we have in the way which we're *supposed to* for all Ecosystem players irrespective of size, stage, or past performance. And yet, as we dug deeper, and investigated the data, authorities, and history of the need for such vehicles more fulsomely, it became evident that the publicly available data may in fact be off by many orders of magnitude.

According to acquisition experts with whom we consulted, **nearly \$16 billion is now going through OTAs at DOD alone**. However, much of this funding is going through consortia, rather than direct awards to companies or nonprofits, where the consortia management firms are listed as the primes but effectively serve as pass throughs. Further, the fidelity of consortia data has historically been questionable at best and SVDG confirmed that it is not captured as of yet in the [Federal Procurement Data System \(FPDS\)](#). OTAs—and some other non-FAR-based mechanisms—are designed by law to be awarded primarily to non-traditional firms. As such, they are better for start-ups than most FAR-based vehicles because there are more opportunities for fewer government-unique mandates in FAR clauses, and they structurally afford better ability to protect underlying intellectual property (IP).

Further, in our efforts to compare and derive meaningful conclusions about FAR versus non-FAR-based awards, we were inherently limited by the lack of available subcontract data on traditional contracts. But even more than that, coming back to non-FAR-based awards, the OTA data is even less complete and potentially misleading because when a traditional contractor is awarded an OTA, it must—by law—partner with a non-traditional entity to avoid cost-share. As such, the traditional awardees are not necessarily being captured in publicly available data either, further muddying the picture.

Total Federal Awards to NATSEC100 (By Total Value of Awards)

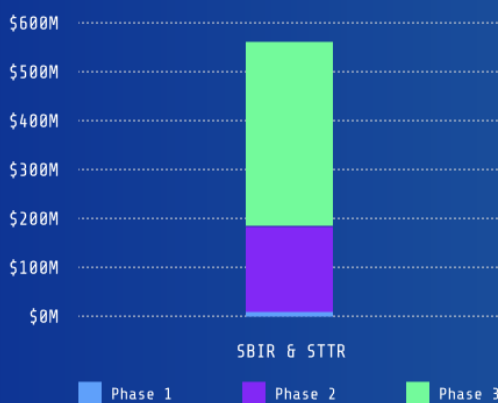




SBIR & STTR Programs

In perhaps one of the most heartening aspects of our analysis, we found that our 2024 NATSEC100 Companies received more Phase III than Phase I or II awards, across both the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. As you will see in the bar chart, award amounts are capped for Phases I and II, with Phase I up to \$306K and Phase II up to ~\$2M without special approvals, so the funding from Phase II and particularly Phase III awards becomes much more meaningful to small businesses/new entrants. Of the 219 SBIR awards to our NATSEC100 cohort this year, 83 were Phase III awards, 69 were Phase II and 67 were Phase I. Similarly, of our cohorts' 27 STTR awards, 10 were Phase III, 8 were Phase II and 9 were Phase I.

SBIR & STTR Related Awards By Phase



This finding—as alluded to early in the report—stands in stark contrast to the constant lamentation about the absolute inability of SBIRs/STTRs to transition or convert into sustained procurement contracts (a myth further debunked by our recent deep-dive into the APFIT program, actually). While our findings don't definitively point to a 1:1 conversion rate for each of the Phase 2 or Phase 3 awards, the fact is that the likelihood of conversion for Phase 2 and 3 awards is exponentially higher than Phase 1 contracts and indicates a positive trajectory from data on the program even just a few years ago.

Further, legally, companies that have been awarded Phase 3 SBIR/STTRs and completed the work therein, are eligible for sole source (non-competitively awarded) contracts by any federal department or agency—which should unlock significant opportunity for sustained and diverse revenue.

So that's the good news. However, despite our visibility into these awards and the positive trajectory as evidenced by the majority Phase 2 and 3 awards, SBIR/STTRs nonetheless still represent a fraction of the total funding allocated to NatSec companies, which in turn is a small fraction of the DoD's and broader USGs' budgetary allocation, raising questions about the government's actual investment in leveraging them to their full potential capabilities and in the spirit in which they were intended. To be clear, we are not advocating for more SBIR/STTR funding at this point. We are simply saying that in spite of a rosier picture than we had anticipated in terms of volume of higher-phase awards, the pull-through rate and follow-on

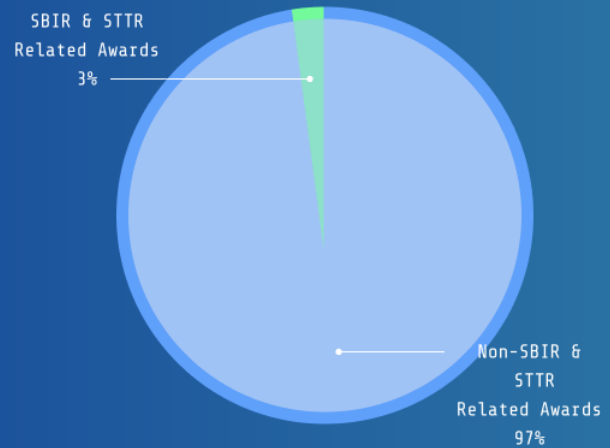


investments in successful SBIR/STTR pilots through production contracts remains vastly insufficient.

Muddy as some of the data may be, it continues to be crystal clear that efforts to expand national security technology-related funding cannot solely rely on pilots and small-scale innovation programs. While beneficial if scalable, such initiatives may not substantially impact overall funding or technology deployment capabilities. Traditional defense contractors, primes, and system integrators (SIs), alongside other channel partners, play pivotal roles as conduits to enhance non-traditional contracting opportunities through collaborative efforts.

While the current landscape underscores progress in innovative procurement methods and pricing structures (we hope), ongoing dialogue about the role of traditional and non-traditional contracting, and the mutually-reinforcing roles of traditional and non-traditional industry suppliers in fostering national security innovation remains imperative for sustained progress and capability enhancement in the sector.

2024 NATSEC100 Award Composition



Concluding Thoughts

The State of Emerging Tech Readiness in 2024

In our inaugural report last year, SVDG introduced the first cohort of [NATSEC100 companies](#), laid a foundation for understanding and evaluating the state of the Emerging Technology Readiness Ecosystem, and recommended three watch items and policy objectives that we assessed were necessary to undertake in order to bolster the U.S. national security apparatus' ability to effectively leverage the best of private sector

innovation, and sustain our techno-security advantage in an era of great power competition. To that end, we advocated for better reporting metrics, increased coordination and meaningful partnership with the private capital community, and a deliberate strategy to nurture and increase the base of new and emerging critical technology suppliers.



Over the past year, we have been heartened to see increasingly significant levels of founder interest in the national security space. New national security-related technologies are being developed, funded, and scaled in ways unimaginable just a decade ago. Last year's two top categories of Space Tech and AI & Autonomy remained the largest areas of investor interest throughout the year. On the venture side of the house, we have been equally excited to watch the continued growth in dual-use and NatSecTech investing, but harbor some concerns with the speed of growth in new funds and the number of new players entering the space. There is an increasing risk of too much inexperienced capital crowding out patient capital and destabilizing the valuations and long-term sustainability of the sector for investors. Moreover, we have continued to see strong interest from investors in pre-seed, seed, and Series A financings in furtherance of creating the next big NatSec Tech company, and in growth equity financings as VCs pile in to support proven players like SpaceX and Anduril in their respective trajectories towards becoming what some call the "new primes." ***Unfortunately, given the dramatic increase in the cost of the capital over the last two years, companies seeking to raise mid-stage capital are being squeezed as VCs have significantly (and rightly, given the market) raised the bar on product-market fit and profitability expectations beyond the early stage.*** The mid-stage funding gap is the real Valley of Death in NatSec Tech. Most VCs are playing it safe and following rather than leading as they figure out the landscape and how to succeed. Our fear is about what that may mean in terms

of companies feeling pressured or even forced to take what the USG and several allied partners increasingly term "[adversarial capital](#)"—investment from less patriotic or democratically-minded investors. This becomes a watch item for us over the next year and one wherein key programming should afford better insights into the state of play, the scope of the potential problem, and opportunities to participate in if not drive the development of a solution.

Further to our earlier points about the need for a diverse Ecosystem, SVDG remains concerned that we have not observed sufficient dynamism from large corporations (traditional primes, SIs, etc.) in organic new product development nor in engagement with start-ups, with the notable exceptions of several CVC arms including Lockheed Martin Ventures, RTX Ventures, BAH Ventures, and SAIC Ventures, all of which are exploring new ways in which to strengthen their own parent firms' offerings via new and non-traditional investments and partnership pathways. Primes and more traditional industry players can and must be a large part of the solution in building the nation's Emerging Tech Readiness, but most are currently incentivized to focus exclusively on shareholder returns as best-in-class program managers returning 7% annually. Non-trationals are arguably where the majority of true technological innovations emerge, but traditionals are exceptionally experienced and adept at developing, scaling, and improving technology for government fielding. One key question to resolve, then, is how these two very different parts of the Ecosystem can be better incentivized—either



by government or by one another—to work together to provide the ingenuity, agility, and scale we need for ETR. The state of play between traditionals and non-traditionals then becomes another watch item for SVDG this year. Finally, the government funding section of this report should leave you as concerned as we are about—at minimum—the absolute opaqueness surrounding detailed transaction data about government awards, insights into the relationships between the “buy” and the “sell” side of the house (as we enumerate in the concept of ETR) and how all of this impacts both new and non-traditional companies and of NatSec-minded VCs to analyze opportunity, much less navigate government contracts. It is clear that there remains much work to be done with respect to better reporting metrics, which we will continue to watch, but equally we believe there

is an opportunity and an imperative to demystify the offices and components across the federal government whose budgets and missions lend themselves to the largest potential sources of sustained revenue in production/procurement contracts (e.g., Program Executive Offices within DoD). SVDG is committed to partnering with industry, academia, other nonprofits, and key government partners to further demystify and decode the production contract landscape for the Ecosystem and will undertake programming in the months ahead to do so.

As we monitor the above “watch items”, each of which we think will promote increased understanding of the state of the Ecosystem and unlock opportunities to drive that Ecosystem towards our vision of ETR, findings from this year’s report have catalyzed two new policy recommendations for 2024-2025.

POLICY RECOMMENDATIONS



INCREASE FEDERAL FUNDING AND DIVERSIFICATION

Policymakers should strive to increase federal funding for emerging technology companies beyond a few dominant players like SpaceX. To be clear, we are not saying we don’t want the government to pick winners, like SpaceX. We absolutely do. We just want the government to pick more winners across more technology areas. We advocate exploring setting aside (and expanding) dedicated budgets for innovative hedge programs like APFIT—whose funding we recommend be increased to on the order of \$3B/year by divesting out of non-performing programs in similar technology areas, assuming the program can sustain the transition rates we are beginning to see into follow on contracts and programs of record.



ENHANCE CONTRACTING TRANSPARENCY AND EFFICIENCY

Policymakers should improve transparency in government contracting by mandating detailed reporting and tracking of all federal awards, including subcontracts and OTA consortia data and then holding government components accountable for that reporting via open hearings and fencing budgets for non-compliance, as required. Simplifying and streamlining the contracting process, particularly for non-traditional and venture-backed startups, will facilitate easier and more equitable access to government contracts.



Senator McCain commissioned the Silicon Valley Defense Group in 2015 to "get the DOD to work better with Silicon Valley." Since our founding, our understanding of McCain's mandate has crystallized into our vision and mission statements which speak to the need for an enduring advantage in the new long-term (and mostly digital) techno-security competition. Building a functional Emerging Tech Readiness Ecosystem, first at home, and then with our democratic allies and partners, is how we do that.





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SVDG NATSEC100

2024 EDITION

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Key

Total Raised	Symbol
< \$100M	\$
\$100M - \$250M	\$\$
\$250M - \$500M	\$\$\$
\$500M - \$750M	\$\$\$\$
\$750 M - \$1 B	\$\$\$\$\$
\$1B - \$2B	\$\$\$\$\$\$
> \$2B	\$\$\$\$\$\$\$

Rank	Name	City	State	Year Founded	Total Funding Raised
1	SpaceX	Hawthorne	California	2002	\$\$\$\$\$\$\$
2	Anduril	Costa Mesa	California	2017	\$\$\$\$\$\$\$
3	Shield AI	San Diego	California	2015	\$\$\$\$\$\$
4	Lambda	San Jose	California	2012	\$\$\$\$\$
5	Scale AI	San Francisco	California	2016	\$\$\$\$\$\$
6	Applied Intuition	Mountain View	California	2017	\$\$\$\$
7	Databricks	San Francisco	California	2013	\$\$\$\$\$\$\$
8	Relativity	Long Beach	California	2016	\$\$\$\$\$\$\$
9	Axiom Space	Houston	Texas	2016	\$\$\$\$
10	Skydio	San Mateo	California	2014	\$\$\$\$
11	PsiQuantum	Palo Alto	California	2015	\$\$\$\$\$\$\$
12	Groq	Mountain View	California	2016	\$\$\$
13	Regent	North Kingstown	Rhode Island	2020	\$\$
14	Astranis	San Francisco	California	2015	\$\$\$\$



15	VAST Data	New York	New York	2016	\$\$\$
16	DataRobot	Boston	Massachusetts	2012	\$\$\$\$\$\$
17	Firefly Aerospace	Cedar Park	Texas	2013	\$\$\$
18	Apex Space	Culver City	California	2022	\$\$
19	Illumio	Sunnyvale	California	2013	\$\$\$\$
20	Ursa Major	Berthoud	Colorado	2015	\$\$\$
21	Corelight	San Francisco	California	2013	\$\$\$
22	Netskope	Santa Clara	California	2012	\$\$\$\$\$\$
23	Grafana Labs	New York	New York	2014	\$\$\$\$
24	BigID	New York	New York	2015	\$\$\$
25	Whoop	Boston	Massachusetts	2012	\$\$\$
26	Sierra Space	Broomfield	Colorado	2021	\$\$\$\$\$\$
27	X-Bow	Albuquerque	New Mexico	2016	\$\$
28	Second Front Systems	Wilmington	Delaware	2014	\$
29	K2 Space	Torrance	California	2022	\$
30	Privateer	Kihei	Hawaii	2021	\$
31	BETA Technologies	South Burlington	Vermont	2012	\$\$\$\$\$
32	Re:Build Manufacturing	Framingham	Massachusetts	2020	\$\$\$\$
33	Censys	Ann Arbor	Michigan	2017	\$\$
34	CesiumAstro	Austin	Texas	2017	\$\$
35	Hadrian	Hawthorne	California	2020	\$\$
36	Automation Anywhere	San Jose	California	2003	\$\$\$\$\$\$
37	SandboxAQ	Tarrytown	New York	2021	\$\$\$\$
38	Lyten	San Jose	California	2014	\$\$\$
39	Versa Networks	Santa Clara	California	2012	\$\$\$
40	ZeroAvia	Hollister	California	2017	\$\$\$
41	Nozomi Networks	San Francisco	California	2013	\$\$\$
42	Hermeus	Atlanta	Georgia	2018	\$\$
43	Snorkel AI	Redwood City	California	2019	\$\$



44	Armada	San Francisco	California	2022	\$
45	Maybell	Denver	Colorado	2020	\$
46	CloudBees	Lewes	Delaware	2010	\$\$\$
47	Dtex Systems	Saratoga	California	2000	\$\$
48	Altana Technologies	New York	New York	2018	\$\$
49	Albedo	Broomfield	Colorado	2020	\$\$
50	SambaNova Systems	Palo Alto	California	2017	\$\$\$\$\$\$
51	ThoughtSpot	Mountain View	California	2012	\$\$\$\$\$
52	Dataiku	New York	New York	2013	\$\$\$\$\$
53	ABL Space Systems	El Segundo	California	2017	\$\$\$\$
54	Horizon3.ai	San Francisco	California	2019	\$
55	Unstructured	Rocklin	California	2022	\$
56	Vannevar Labs	Palo Alto	California	2019	\$
57	Firestorm	San Diego	California	2022	\$
58	Eightfold.ai	Santa Clara	California	2016	\$\$\$
59	Laser Light Communications	Reston	Virginia	2012	\$\$\$\$
60	HawkEye 360	Herndon	Virginia	2015	\$\$\$
61	Workera	Palo Alto	California	2019	\$
62	Cerebras Systems	Sunnyvale	California	2016	\$\$\$\$
63	Blue Origin	Kirkland	Washington	2000	\$\$\$\$
64	Capella Space	San Francisco	California	2016	\$\$\$
65	Arris Composites	Berkeley	California	2017	\$\$
66	Nominal	Los Angeles	California	2022	\$
67	Impulse Space	Redondo Beach	California	2021	\$
68	Orbit Fab	Lafayette	Colorado	2018	\$
69	TileDB	Cambridge	Massachusetts	2017	\$
70	Onebrief	Austin	Texas	2018	\$
71	Firehawk Aerospace	Addison	Texas	2019	\$
72	Saronic Technologies	Austin	Texas	2022	\$



73	TurbineOne	San Francisco	California	2020	\$
74	Stoke Space Technologies	Everett	Washington	2019	\$\$
75	Varda Space Industries	El Segundo	California	2020	\$\$
76	Weights & Biases	San Francisco	California	2017	\$\$\$
77	Gecko Robotics	Pittsburgh	Pennsylvania	2013	\$\$
78	6K	North Andover	Massachusetts	2014	\$\$
79	Chainalysis	New York	New York	2014	\$\$\$\$
80	Tomorrow.io	Boston	Massachusetts	2016	\$\$\$
81	Dragos	Hanover	Maryland	2016	\$\$\$
82	Whisper Aero	Crossville	Tennessee	2020	\$
83	Yurts	San Francisco	California	2022	\$
84	Radiant Nuclear	El Segundo	California	2019	\$
85	Niron Magnetics	Minneapolis	Minnesota	2014	\$\$
86	Umbra	Santa Barbara	California	2015	\$\$
87	Sea Machines	Boston	Massachusetts	2015	\$
88	Claros Technologies	Minneapolis	Minnesota	2018	\$
89	ICON	Austin	Texas	2017	\$\$\$
90	Epirus	Redondo Beach	California	2018	\$\$\$
91	SiMa.ai	San Jose	California	2018	\$\$\$
92	Air Space Intelligence	San Francisco	California	2018	\$
93	Cambium	El Segundo	California	2019	\$
94	Seasats	San Diego	California	2020	\$
95	True Anomaly	Centennial	Colorado	2022	\$\$
96	TRM Labs	San Francisco	California	2018	\$\$
97	UVeye	Teaneck	New Jersey	2014	\$\$
98	Kodiak Robotics	Mountain View	California	2018	\$\$
99	LeoLabs	Menlo Park	California	2016	\$\$\$\$
100	Venus Aerospace	Houston	Texas	2019	\$