"Industry Perspectives on Defense Innovation and Deterrence" Hearing Before the Subcommittee on Cyber, Information Technologies & Innovation of the House Committee on Armed Services

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Chairman Gallagher, Ranking Member Khanna, and distinguished Members of the subcommittee, thank you for the opportunity to testify today. I am honored to represent Anduril Industries and the members of our team.

Anduril was founded in 2017 to deliver software-defined technology solutions to the United States military and to allied and partner militaries. We appreciate your focus on defense innovation and the need to expand the defense industrial base to include new entrants. Thanks in large part to your leadership, the policies and authorities needed to deliver innovative technology solutions have improved significantly: no longer do we debate whether, why, or when innovation is needed. Instead, the issue now is *how* to do it. We argue that the key to success is incentivizing production of high quantities of the right capabilities, across all domains, at speed and scale.

Anduril is a new type of defense company, and we joined this mission to protect the security of the United States and our allies and partners. The U.S. defense enterprise is in a strategic predicament. Our ability to generate and project military power is overly reliant upon small numbers of exquisite systems that our industrial base cannot build at relevant scales and speeds. Anduril is building software-defined and hardware-enabled platforms across domains to field an arsenal of smaller, lower cost, autonomous systems that can be produced at scale within 18-24 months, fielded rapidly to U.S. forces, and transferred to our allies and partners.

Anduril's mission recalls the World War II-era drive for the United States to become the "arsenal of democracy." Importantly, however, the country cannot build that arsenal as we did in the 1940s, through massive new government organizations, unconstrained resource allocations, or centralized industrial policy. Nor can the country succeed through incremental changes to a legacy system that is not optimized to produce the types of technology needed for modern warfare. Instead, the United States – and specifically the Department of Defense – must use the market principles that have spurred generations of technological progress and economic prosperity. Those principles leverage the power of software, the talent of the American workforce, and the ingenuity of public servants to change the way we deliver and deploy defense technology.

At Anduril, we call this approach "Rebooting the Arsenal of Democracy."¹ Put another way, tinkering with the existing defense acquisition system will not succeed. Instead, the United States must "reboot" the system that initially created and sustained the arsenal of democracy.

¹ Anduril Indus., *Rebooting the Arsenal of Democracy* (2022), <u>https://www.rebootingthearsenal.com</u>.

Anduril is a defense technology company that builds integrated software and hardware products. Software is at the core of the weapon systems of the future. Take unmanned aerial systems, for example. UAS have been staples of the arsenal for decades, but vehicles that are manually piloted and monitored require crews of a dozen to operate. Cutting-edge AI and autonomy can reverse that equation.

Our software platform, called Lattice, underpins all our products. Lattice is a situational awareness platform that ingests sensor data to give users a picture of everything happening in a defined area. Lattice works autonomously, taking data from Anduril assets and third-party systems, presenting users a real-time operating picture to make decisions about how they wish to respond to the information Lattice collects. Just like a phone can seamlessly communicate, share data with, and take tasks from a laptop, Lattice can integrate legacy systems with new technologies by sharing real time data and teaming capabilities across autonomy-enabled assets. Our hardware programs are integrated vectors to deliver cutting-edge software across multiple domains. Our approach contrasts fundamentally with older defense contracting models, which are hardware first, software second.

How should this approach inform defense policy?

Put simply, the government can innovate through act of buying at scale. We don't dispute the need for capacity and capability of *some* number of exquisite assets. However, the United States cannot succeed without augmenting those assets with new, mass-produced items far more responsive to market forces that the Department can affect. We will never see a true marketplace for aircraft carriers, but the Department can absolutely have one for sensors, satellite constellations, unmanned undersea vehicles, air defense systems, or precision strike munitions.

Those markets arise in response to real, meaningful, near-term production award opportunities. The subcommittee heard testimony earlier this year that the military needs "large quantities of smaller, lower cost, more autonomous, consumable things, and most importantly the digital means of integrating them."² Acquiring these types of capabilities *now* should be a priority, as they will enable the Department to delay and deter competitors who might otherwise be tempted to pursue an asymmetric attack on our high-end capabilities before we are able to mobilize the industrial base to respond.

Incentivizing competition is the core of this approach. By "competition," I mean genuine, sustained, and ruthless competition among serious bidders providing developed capabilities, not white paper submissions featuring familiar contestants and derivative wares. These competitions should be actual product-driven "bake-offs" and not paper-based evaluations, and they should end in a meaningful award.

Substantial production contracts provide an impetus for software-first companies to join this competitive landscape. Under Secretary LaPlante said it is all about production,

² *The Future of War: Is the Pentagon Prepared to Deter and Defeat America's Adversaries? Hearing Before the Subcomm. on Cyber, Info. Techs. & Innovation of the H. Comm. on Armed Servs., 118th Cong. (Feb. 9, 2023) (statement of Chris Brose, Author, The Kill Chain).*

and we agree.³ Fair and frequent competitions for large contracts force companies to earn the government's business, to maintain your trust, and to deliver high value at low cost.

There is no magic formula for driving down costs, but the more new and innovative companies we bring into the defense industrial base, the more these companies will compete, including on price. The more that companies spend developing capabilities on our own dime, instead of relying on inefficient cost-type contracts, the more cost efficient and effective our capabilities will be. And the more we leverage new technology, the more effectively we can employ our precious human capital.

With respect to software, we are talking about technology that exists today, that is deployed operationally today, and that in many instances is being fielded today by those who wish to do harm to America and its interests. This software is not easy to build and will require private sector experience and expertise. It cannot be built on the cheap and it will not be ready to meet our national security challenges if it is procured using traditional defense acquisition processes and timelines. Building world-class software is an engineering challenge equivalent to building a next-generation fighter jet, and we should treat it as such.

Congress has done yeoman's work to make this new framework a reality, and we are excited to see your committee and the Department build on those efforts. For example, it has never been easier for a new company to get research or prototype funding, thanks, in part, to the innovation ecosystem led by DIU and the Service "Werx." You have largely solved the "front door" challenge, so the policies I've described today focus on the next phase: how to scale capabilities from prototype to production.

The "APFIT" program⁴ and the ongoing pilot for new funding approaches to software and digital technology,⁵ both of which Congress established, are great steps, as is the proposal in this year's House-passed NDAA to initiate a series of rapid competitions.⁶ These legislative provisions reflect the power of Congress to encourage innovative companies to work on defense technology by shifting to real, performance-based competition.

The tenets of this model will drive innovation:

• Structure competitions as a series of well delineated projects that test a vendor's ability to solve a pressing operational problem.

³ Hon. William LaPlante, Under Sec'y of Def. for Acquisition & Sustainment, Remarks to the Council on Foreign Relations: Is the U.S. Military Industrial Base Prepared? (May 3, 2023) ("[W]e've got to focus on production. Production, production, production."), <u>https://www.cfr.org/event/us-military-industrial-base-prepared</u>.

⁴ National Defense Authorization Act for Fiscal Year 2022, Pub. L. No. 117-81, § 834 (2021).

⁵ Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, § 8131 (2020); *see also* National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-92, § 800 (2019).

⁶ National Defense Authorization Act for Fiscal Year 2024, H.R. 2670, 118th Cong. § 851 (2023).

- Incentivize and empower decision-makers to manage these competitions and rapidly align resources to reward success.
- Always have a meaningful contract immediately following the competition's end and issue it quickly.
- Keep rewarding new bidders by frequently re-competing large programs.
- Measure outputs, not inputs: ask how many of those competitions led to meaningful solutions, and how quickly they delivered them.

Anduril's model works: recruit talented people; build quickly and efficiently based on calculated risk with scarce resources; and offer frequent improvement of software-first technology. With the right incentives, and with your continued leadership, the Department can reap the benefits of this model, U.S. and allied warfighters will be equipped for overmatch, and the United States can maintain the leadership position that has ensured prosperity and peace.

Thank you once again and I look forward to your questions.