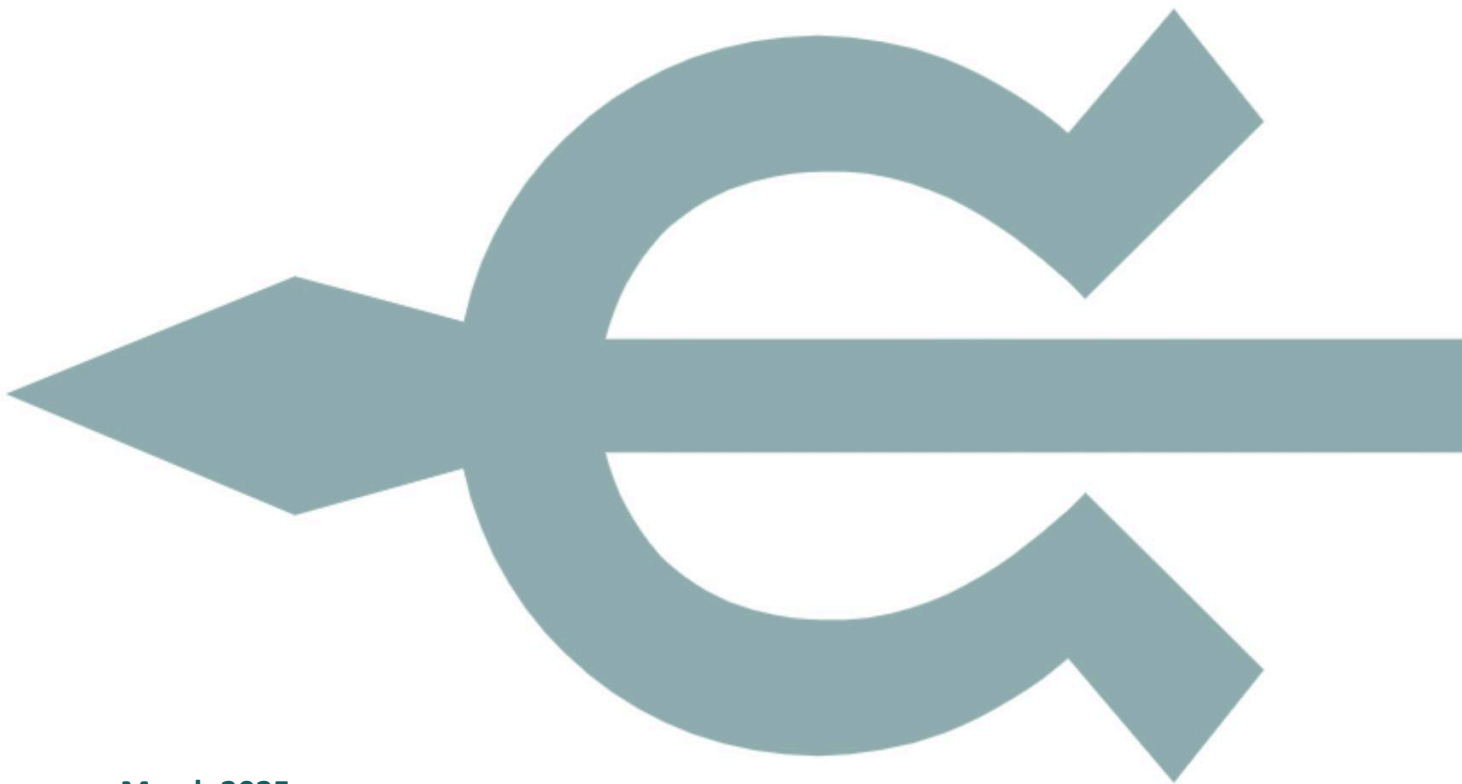Sahaidachnyi
Security Center

Battlefield-Driven Acquisition for 2025 and beyond

A Strategic Framework for High-Tech Military Procurement in Contemporary Warfare

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Problem Statement

In the modern era of warfare, the most valuable procurement asset lies in the ability of government institutions, in collaboration with business and civil society, to establish organizational and regulatory frameworks fostering continuous innovation and scalability. Bureaucratic inefficiencies pose significant threats to this process stifling the development of startups and innovative projects critical to the defense sector, particularly with the rise of dynamic, fast-evolving technological landscapes. Ukraine's experience at the first phase of war confirms that lengthy, hierarchical approval processes fail to deliver timely solutions to combat units, leaving critical needs unmet despite substantial budget allocations. However, in the last three years, Ukraine has undertaken significant defense procurement reforms, transitioning from an opaque, intermediary-driven model to a more centralized, transparent, and professionally managed framework. Its experience is relevant in the broader European context, where defense procurement must adapt to rapidly evolving technological warfare while maintaining accountability and efficiency.

Lesson Learned from Ukraine

At the outset of the full-scale invasion, Ukraine's legacy defense procurement framework - structured around centralized approval protocols and specialized export intermediaries - was optimized for weapon exports by few major state-owned and corporate defense companies, rather than massive wartime import or development of an agile domestic DefTech ecosystem. However, as warfare grew increasingly technology-driven, this framework revealed significant limitations, proving especially ill-suited to the imperatives of the emerging "drone war". Unmanned systems, electronic warfare (EW), and advanced communication technologies evolved at an exponential pace, and Ukrainian commanders reported that by the time contracts were executed, technological shifts often rendered delivered equipment outdated and misaligned with current needs. This created a fundamental disconnect between the formal procurement criteria and the dynamic needs of end-users - namely, frontline personnel. As a result, alternative acquisitions or post-delivery modifications drove up costs and delayed deployment.

The situation was further aggravated by inadequate service support from manufacturers. Combat units frequently lacked access to technical consultations for problem-solving and had to establish separate teams for equipment modification, repair, and modernization. Frontline drone operators still reinvest 5-30% of their near $3,000 monthly allowance into their equipment capability upgrade.

Effective procurement in this context required a dual approach: addressing immediate operational needs while simultaneously ensuring long-term technological superiority through strategic planning and development. To achieve this, Ukraine's defense procurement modernization comprised *two distinct vectors.*

1. NATO-aligned institutional reforms implemented to ensure operational efficiency and sustainability in wartime conditions.

1.1. Adoption of corporate governance practices. As special exporters inflated prices and extracted commissions (approximately 3% of contract values), sometimes disrupted supply chains, accrued debts, and operated with minimal transparency or oversight, Ukrainian government partially dismantled this system in favor of a more centralized and transparent one. It established two specialized agencies, *Defence Procurement Agency / DPA* for lethal procurements and *Rear State Operator / DOT* for non-lethal acquisitions. Detached from the MoD entrenched bureaucracy, they recruited civilian professionals with reform experience, enabling the professionalization of procurement. Modern IT solutions, price analytics, transparent tender procedures, and quality control mechanisms were implemented.

A cornerstone of this reform was the creation of **independent supervisory boards,** comprising respected Ukrainian and international experts. These boards enhanced transparency and accountability by overseeing agency decisions, ensuring managerial integrity, and aligning operations with global best practices. The inclusion of foreign experts bolstered partners' confidence who sought assurances that financial aid and resources would not be misappropriated.

1.2. Balancing Transparency and Security in Tenders. A critical challenge has been striking a balance between transparency and the secrecy required in wartime. Initially characterized by near-total confidentiality, Ukraine's procurement system faced public and international backlash following high-profile corruption scandals, such as those involving overpriced eggs and jackets. This prompted a gradual shift toward partial disclosure. While sensitive details—such as weapon specifications, delivery schedules, and storage locations—remain classified, broader transparency measures have been adopted. For example, tenders may now occur behind closed doors, with details of expenditures, suppliers, and pricing published months later, safeguarding critical parameters while fostering accountability. This evolving approach underscores a key lesson: absolute secrecy often masks abuses and erodes trust, whereas strategic transparency can maintain public and donor confidence without compromising security.

1.3. **Balancing Standards and Urgency.** While DPA's rigorous multi-tiered quality inspections and contractual penalties reduced the risk of substandard procurements, this was done at the cost of slower procedures. However, wartime acquisitions often necessitate immediate action that cannot wait for standard compliance procedures during time-critical operations. This is why MoD still relies on legacy special exporters as an emergency resource, highlighting the challenges of rapid systemic overhaul amid ongoing conflict. The occasional delegation of near $600m urgent shell procurement to the State Border Guard Service in November 2024 also reflected this tension between speed and oversight.

2. Authentic Ukrainian initiatives emerging from bottom-up innovation and direct operational requirements.

1. Alternative or supplementary acquisitions via charity funds or crowdfunded ad hoc solutions, as a forced measure by combat units to fill critical capability gaps that directly impact operational effectiveness, created by government inefficiency and sharpened by the rapid pace of technological evolution. For instance, Ukraine's largest defense charity foundation has expended over $350 million since 2022, while targeted crowdfunding efforts via Monobank's digital platform have mobilized over 10 million Ukrainian citizens, generating UAH 2 billion (approximately $50 million) in direct contributions to brigade-level units. A government-operated fundraising platform UNITED24 proved to be effective as a key instrument for financing and scaling the production of next-generation unmanned systems.

2. Establishment of horizontal connections between MilTech startups and battlefield units, fostering direct manufacturer-user interaction. This enabled manufacturers to receive real-time, accurate information about their products' combat performance and quickly address identified vulnerabilities. In turn, manufacturers provide technical assistance, operator consultations, and equipment upgrades aligned with battlefield shifts. Notable examples of this best practice include Ukrainian firms such as Roboneers and UkrSpecSystem, alongside international partners like Shield AI. The Brave1 platform exemplifies a systemic solution, uniting scientists, engineers, manufacturers, and military personnel to accelerate the development, prototyping, and field testing of innovative technologies based on direct input from combat units.

Important note: One of the key lessons learned from extensive three-year observations of contemporary warfare is that innovation velocity and data acquisition capabilities have emerged as the predominant variables in the MilTech industry, as the inherent momentum of technological sophistication has accelerated innovation cycles beyond levels that can be predicted and controlled "manually". Effective military technology innovation can no longer be conducted remotely; it necessitates immediate battlefield access, continuous operational feedback mechanisms, and real-time combat data collection.

3. Scaling Brave1 as an Innovation Cluster. Further expansion of the Brave1 initiative as an integrated hub for defense technology development offers comprehensive support for complex solutions. The complexity of modern systems, particularly unmanned and autonomous platforms, requires sophisticated, forward-thinking development strategies and solutions that transcend the limitations of a simplistic 'quick fix' approach. These are not standalone assets but components of broader battlefield ecosystems, reliant on C2 and ISTAR digital tools, communication infrastructure, EW assets and ground control system for optimal performance. Procurement models approaching individual systems based on static technical specifications and neglecting their integration into operational frameworks, falter. Beyond Brave1, this role is increasingly fulfilled by R&D centers established within Ukraine's most effective brigades and battalions. These units reconfigure delivered drones, communication systems, EW assets, and other equipment—adjusting frequencies or integrating them into tracking systems—representing a distinctly Ukrainian innovation to align materiel capabilities with drone warfare demands. The government is currently

developing a legal framework to formalize these centers, enabling systematic component procurement and securing intellectual property rights for their innovations.

4. DeCenter. An elegant solution currently being tested by Ukraine is enhancing the decentralized procurement model by substantially increasing allocated state funds, empowering individual brigades to directly acquire military equipment tailored to their specific operational needs (no mediating procurement agency needed!), particularly unmanned systems and EW capabilities. This approach has proven remarkably effective in reducing procurement cycles from months to days, especially as both military units and companies get properly educated on utilizing a system they previously lacked information about. Funding is allocated based on a unit's demonstrated capacity to utilize resources efficiently: unspent funds are reclaimed at month's end, while units that expend resources swiftly receive additional allocations. For instance, a Territorial Defense brigade utilized UAH 1b ($25m) in a single year, far exceeding the annual average $1–1.5m per brigade.

5. Digital Procurement Platform. To further enhance efficiency and scalability, Ukraine's MoD and Ministry of Digital Transformation are developing a unified digital platform—akin to a 'military Amazon'—to automate procurement processes. This marketplace will connect producers, developers, suppliers, and military buyers within a secure, tokenized environment, streamlining interactions and enabling units to select optimal solutions. Real-time data integration will support logistics and resource management, while embedded recommendation algorithms will match vendors with buyers based on analytical insights, expediting acquisitions and fostering competition among suppliers.
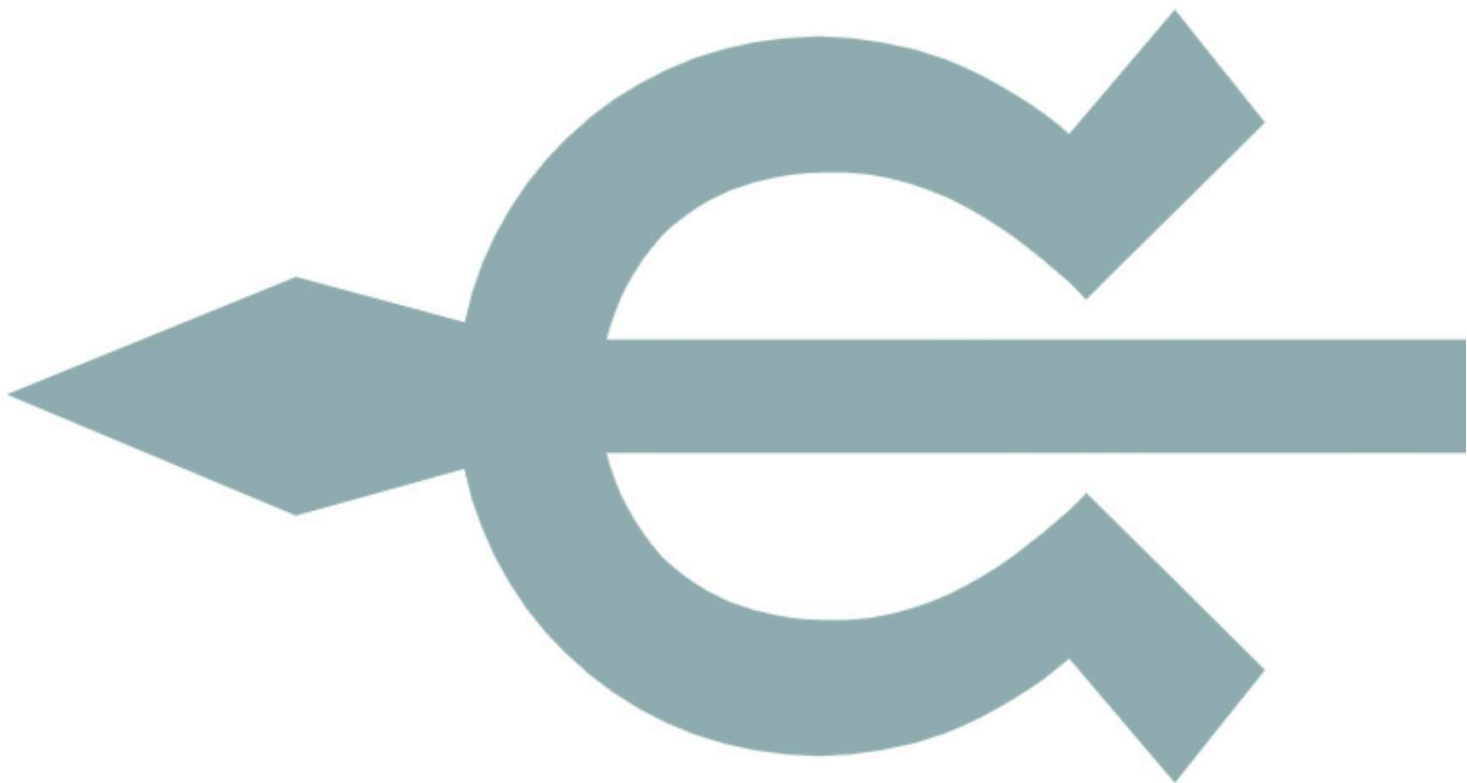
Policy Recommendations

Ukraine's experience offers valuable insights beyond its borders, particularly for the EU, where joint defense procurement is under consideration. Operating as a testing ground under the scrutiny of its international partners, Ukraine has demonstrated the efficacy of specialized agencies paired with multinational supervisory boards. This model could inform the creation of a European Defense Procurement Agency, potentially built upon frameworks like the Permanent Structured Cooperation (PESCO) or the European Defence Agency (EDA). Such an entity, equipped with a multinational oversight body akin to Ukraine's supervisory boards, could coordinate large-scale projects - mirroring existing programs like OCCAR - provided these boards wield real authority rather than serving as ornamental fixtures.

On the national level, the innovation-driven transformation of defense procurement systems envisages a comprehensive approach to the contracting mechanisms addressing both immediate operational needs and long-term strategic capabilities:

- Abandoning traditional multi-year contracts in favor of short-term, high-value agreements spanning three to six months. These contracts would target specific, immediate solutions - such as small-class drones or electronic warfare tools - with clear performance indicators derived from frontline feedback. Such a model

prioritizes speed and adaptability, enabling rapid deployment of cutting-edge equipment while minimizing the risk of obsolescence;

- Retainment of long-term contracts to ensure stability for defense-tech firms, but incorporating mandatory service and support provisions. For critical systems like unmanned platforms, EW and communication tools, this support should include on-demand troubleshooting and periodic retrofitting, ensuring relevance throughout their lifecycle. To balance these obligations, contracts should offer financial incentives or preferential terms to compliant producers, fostering a mutually beneficial partnership.