Sahaidachnyi Security Center

Stratagems for the Victory of Ukraine

The Concept of Russia's Terminal Defeat in a High-Tech War of Attrition

An analytical discussion paper intended for further debate, validation, and expansion by experts and stakeholders within Ukraine's defense sector.

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Executive Summary

The ongoing consequences of Russia's full-scale aggression — now nearing its fourth year — demand a profound rethinking of the vision and model required to provide Ukraine's victory in a high-tech war of attrition. This document is a publicly adapted, abridged version of an analytical brief focused on achieving Ukraine's strategic military objectives and ultimate victory amid the exceptionally complex circumstances of early 2026. Currently, Ukraine's previous asymmetric advantage in unmanned systems has been largely neutralized, while partner support remains insufficient. Furthermore, the aggressor is not only maintaining but actively expanding its modern, high-tech capabilities across the tactical, operational, and strategic levels. In light of these realities — and taking into account the enemy's core objectives alongside the evolving technology of warfare — this analysis offers a constructive critique of the concepts of "strategic deterrence" and "functional defeat," concluding that they are fundamentally inadequate.

Instead, this analysis proposes a new model of "terminal defeat." This paradigm maintains an outwardly "unrealistic" strategic objective — asserting that true security requires the complete structural destruction of Russia's war-making capacity and the dismantling of its aggressive regime, rather than a mere temporary ceasefire. Simultaneously, it remains firmly grounded in a pragmatic assessment of Ukraine's current force exhaustion and severe resource constraints. To bridge the critical gap between strategic ends and available means, the brief advocates a highly aggressive operational approach. This strategy targets critical bifurcation points: essential centres of gravity and key nodes of effort within both the Ukrainian military organisation and the adversary's systems. By concentrating limited resources against these decisive nodes, the strategy aims to trigger a cascading chain reaction of qualitative changes, ultimately generating a maximum, non-linear force multiplier effect.

Externally, the analysis details two distinct strategic vectors. The first is a systemic liquidation vector, focused on identifying and striking critical bottlenecks within the Russian Federation to precipitate irreversible economic, technological, and cognitive degradation. The second is a deterrence vector, designed to temporarily secure the defensive perimeter and sustain force resilience. This secondary vector provides the necessary operational time for the liquidation scenario to achieve its ultimate strategic effect. This approach necessitates a judicious allocation of resources between deep-strike capabilities and frontline operational requirements. Furthermore, it prioritises the rapid automation of forward combat functions, rigorous force preservation, and the establishment of a contiguous 20-kilometre kill zone that guarantees maximum lethality against adversary formations. Internally, the document outlines and operationalises the core lines of effort (LOEs) required to rapidly elevate the state's military apparatus to peak organisational and technological readiness. These LOEs encompass bolstering national resilience, optimising force generation and military leadership models, integrating artificial intelligence, accelerating defence technology innovation, and securing the critical supply chains of the Defence Industrial Base (DIB).

Content

1. Introduction. The strategic situation after four years of full-scale war

The use of the term "victory" in professional discourse is becoming increasingly debated in light of deep, accumulated structural challenges. Russia maintains a layered defence featuring dense stand-off engagement zones, combined with a sustainable system for replacing personnel losses. Furthermore, the aggressor is rapidly scaling up its unmanned and robotic capabilities at the operational-tactical level, while simultaneously expanding its operational-strategic strike assets — specifically, Shahed-type reconnaissance and attack UAVs, as well as ballistic and cruise missiles.

Meanwhile, although Ukraine continues to refine its own organisational and technical strategies, its previous asymmetric advantages are steadily eroding in relative terms — most notably in the domain of unmanned systems. Domestic resources and allied financial backing remain constrained, falling short of the exhaustive demands of a protracted war of attrition. Yet, the paramount strategic vulnerability — an absolute bottleneck that cannot be mitigated by material alone — is the acute shortage of combat-ready manpower. The rapid attrition of experienced troops, coupled with the inadequate readiness of mobilised reinforcements, has generated a systemic crisis. Formations are increasingly forced into a cycle of piecemeal casualty replacement, stripping them of the operational pauses required for collective training and unit cohesion. Ultimately, this chronic personnel churn is steadily degrading the combat effectiveness of most brigades. Crossing the critical threshold of this manpower deficit risks a structural collapse of the entire defensive architecture.

These compounding factors compel a reassessment of what constitutes victory, necessitating the abandonment of unrealistic strategic end-states. Strategic emphasis has fundamentally shifted away from the kinetic restoration of 1991 or 2022 borders, pivoting instead towards the paramount objectives of preserving statehood and holding currently controlled territory. This emergent, pragmatic vision seeks to compel the Russian Federation to the negotiating table and achieve a cessation of hostilities, explicitly without the de jure recognition of any territorial alterations.

However, this paradigm harbours a fatal strategic flaw: defining "victory" as a mere halt along the current line of contact risks engineering a deferred defeat. Absent the structural dismantling of Russia's military apparatus, the adversary will inevitably regenerate its offensive combat power. This risk is heavily amplified by the potential erosion of sanctions, which would re-establish Russian access to global markets and critical dual-use technologies.

The political leadership seeks to mitigate this strategic vulnerability by securing robust "security guarantees" from international partners. Yet, an objective analysis

of the current geopolitical environment reveals the fallacy of over-relying on such diplomatic instruments. Declaratory frameworks, such as a "Coalition of the Willing," offer negligible practical utility and lack credible deterrence mechanisms even at their inception. Furthermore, the single actor capable of underwriting the required level of deterrence — the United States — continues to exhibit a persistent reluctance to assume binding legal commitments for direct defence.

Consequently, Ukraine confronts a stark strategic dilemma. While accepting a compromised vision of "victory" entails severe deferred risks, the acute quantitative and qualitative limitations of the Defence Forces project an illusion that no viable alternative exists. Furthermore, the broader geopolitical reality renders this dilemma largely moot, given the complete absence of any Russian intent to engage in good-faith diplomacy. Moscow's instrumentalisation of the negotiation process is fundamentally an information and psychological operation (PSYOP). It is explicitly designed to demoralise the Ukrainian populace, fracture allied cohesion, and preemptively neutralise diplomatic pressure from the United States.

Confronted with this harsh strategic reality, current expert discourse is shifting toward alternative paradigms for a "technical" conclusion to the conflict — one achieved irrespective of Moscow's diplomatic posture. These approaches centre on either driving the Russian Federation to systemic resource exhaustion (demographic or economic insolvency) or inflicting a "functional defeat."[1] The latter seeks to engineer operational conditions wherein the adversary is systematically stripped of the capacity to project combat power or effectively sustain its aggression.

The recent transition in leadership within the Ukrainian Ministry of Defence — characterised by a project-management ethos and a decisive prioritisation of technological innovation — presents a critical window of opportunity. This shift enables the implementation of structural reforms necessary to maximise the efficiency of the state's military apparatus, thereby establishing the coercive leverage required to halt Russian aggression.

Within this context, this policy brief critically evaluates the adequacy of the "functional defeat" paradigm as a viable pathway to Ukraine's strategic victory. In its place, it introduces the doctrinal concept of "terminal defeat," providing a comprehensive, actionable framework for its practical realisation.

[1] This concept was developed and advanced by the Centre for Defence Strategies, a non-governmental organisation led by Andriy Zahorodniuk.

2. Inadequacy of strategic deterrence and "functional defeat" models in current operational conditions

Until recently, the paradigm of strategic deterrence—often termed the "steel porcupine," "outpost," or "wall" strategy[2] — dominated public and expert discourse regarding Ukraine's military security model. This concept rests on the premise that, given the severe resource asymmetry in favour of the Russian Federation, Ukraine's sole viable strategy is to construct an overwhelmingly robust defence. The objective is to impose unacceptably high costs on the adversary, compelling a cessation of hostilities and deterring future aggression.

However, four years of full-scale conflict have exposed the fundamental inadequacies of this approach. In the contemporary operational environment of high-tech warfare, effective defence relies less on static fortifications and more on a complex, dynamic network of sensors and effectors. This architecture demands continuous sustainment and modernisation. Ukraine currently lacks the requisite financial capital, qualified personnel, and technical assets to sustain such a system at the "steel porcupine" threshold.

Moreover, the mass proliferation and qualitative evolution of unmanned aerial systems (UAS) — alongside the growing tactical proficiency of their operators — have fundamentally altered their utility. UAS have transitioned from assets that provide a purely defensive asymmetric advantage into instruments of continuous, sustained engagement. This allows the adversary to systematically dismantle defensive lines by rapidly attriting both human and material resources. Consequently, modern defensive operations require the relentless consumption of both renewable and non-renewable assets. Any strategic "wall" predicated solely on passive protection and deterrence will inevitably breach under such attritional pressure.

Therefore, relying on strategic deterrence per se[3] in modern high-tech warfare is ultimately a losing proposition. Confronted with a profound disparity in aggregate combat potential, this highly resource-intensive model rapidly loses operational stability, guaranteeing its eventual structural collapse.

> Historical precedent dictates that deterrence strategies remain viable only when arrayed against a materially, technologically, or organisationally inferior adversary. In a high-intensity conflict against a peer or overmatching force, maintaining a strictly defensive posture inevitably culminates in a guaranteed — albeit deferred — strategic defeat.

[2] Drawing on the defensive metaphor from the epic fantasy series Game of Thrones.
[3] Per se (Latin)—by itself, or intrinsically.

Recognising this reality has driven the search for strategic frameworks focused not merely on restoring military security, but on achieving decisive victory. The most comprehensive effort in this vein is the Centre for Defence Strategies' (CDS) concept of "functional defeat." This model envisions inducing operational paralysis without necessitating the enemy's total exhaustion or physical destruction — creating conditions wherein the adversary retains its military potential but is structurally denied the ability to employ it effectively.

Proponents validate this model by citing the maritime domain, where the asymmetric employment of unmanned and robotic systems by the Defence Forces successfully stripped the Russian Black Sea Fleet of its control over the maritime theatre and denied it freedom of manoeuvre, achieving this without the total destruction of the fleet itself.

In reality, however, the "functional defeat" paradigm does not fundamentally transcend the meta-model of strategic deterrence. The strategy of engineering an environment where the adversary retains intact capabilities yet faces no viable avenues for their employment operates on the logic of a chess mating net. It creates a positional stalemate where the opponent's options are neutralised, or a state of zugzwang, where any proactive manoeuvre inherently degrades their operational posture. Yet warfare, unlike chess, involves the complex clash of open, antagonistic systems. While this model may demonstrate exceptional efficacy during specific operational phases, it fails to account for long-term strategic vulnerabilities. It offers no viable countermeasure to shifts in the balance of power resulting from the adversary's resource accumulation, the introduction of novel extra-systemic variables, or the gradual entropic decay of individual system components over time.

Crucially, the successful application of this approach within the maritime domain — as cited by the CDS — demands critical re-evaluation. As of 2026, it represents an operational anomaly rather than a universal model scalable to the broader strategic conduct of the war. Surface and sub-surface warfare constitutes the sole subdomain where Ukraine has successfully fielded next-generation capabilities (unmanned and robotic systems) ahead of the Russian Federation. Yet, this precise success exposes the concept's core vulnerability: the strictly finite "window of opportunity" generated by a functional defeat.

Russia is actively mitigating this capability gap. It is committing significant resources, establishing multiple R&D centres in the Baltic region, and testing a spectrum of solutions via its "Rubicon" unit. Furthermore, the sinking of the Ukrainian Navy vessel Simferopol on the Danube in August 2025 unequivocally demonstrates a transition from testing to operational employment. Once the adversary achieves parity in these capabilities, its "functional defeat" at sea will be effectively nullified, instantly reverting the domain to a high-intensity, symmetrical confrontation between offensive and defensive assets.

Across other operational domains, no comparable, order-of-magnitude capability gap in Ukraine's favour exists as of early 2026. While a relative Russian lag persists in specific spheres[4] — such as digital command and control (C2) systems, unmanned ground vehicles (UGVs), and distinct segments of the UAS ecosystem — this does not constitute a generational overmatch capable of sustaining a "functional defeat." Furthermore, across the majority of capability clusters, the operational environment ranges from relative parity (e.g., the cyber and electromagnetic domains) to sustained, significant Russian overmatch (e.g., strategic and tactical aviation, and missile systems). In the space domain, the Russian Federation's sovereign capabilities stand in stark contrast to Ukraine's reliance on allied support, a variable that cannot be treated as a guaranteed constant.

Conclusion: Given the prevailing quantitative disparity in aggregate combat potential, engineering a comprehensive "functional defeat" across the entire theatre of war appears functionally impossible.

A theoretical pathway to alter this trajectory relies on implementing a combination of exceptionally effective, non-linear organisational reforms, coupled with the accurate forecasting and rapid fielding of transformative technical solutions — potential "game-changers" on the battlefield. However, even this approach to securing a "functional defeat" is rendered practically ineffective by the specific structural dynamics of the modern war of attrition against the Russian Federation.

Specifically, Russian aggression operates along a dual-vector axis, distributed across space and time into two functionally autonomous lines of operation:

- Deep strikes targeting critical infrastructure within Ukraine's strategic depth.
- Kinetic combat operations directly within the operational zone (along the line of contact).

While these vectors exert a compounding, cumulative destructive effect on Ukraine, the force generation and employment processes underpinning these capabilities remain structurally decoupled for the Russian Federation. Consequently, neutralising one operational vector does not inherently degrade the other, nor does it significantly impede its operational execution.

Even a hypothetical neutralisation of Russia's strategic aerial strike capacity — a formidably complex undertaking given the persistent ballistic missile threat — would fail to tangibly alter the tactical geometry at the front. The adversary would fully retain its capacity for incremental, "creeping" advances, leveraging a synergy of remote engagement cycles (reliant on guided aerial bombs, or KABs, and UAS) coupled with small-unit infiltration tactics. Conversely, stabilising the frontline and transforming it into an impregnable defensive belt via an impassable kill zone would not degrade the aggressor's capacity to execute massed missile and drone

[4] A capability gap that the adversary is, however, rapidly closing.

barrages against Ukraine's operational and strategic rear. Russia consistently scales and refines its long-range precision strike capabilities entirely independently of the tactical successes or failures of its ground formations. Furthermore, a definitive culmination of the Russian ground offensive (e.g., encountering a "wall of drones") is highly unlikely to precipitate a broader cessation of hostilities. Instead, it significantly elevates the risk of the adversary pivoting to a strategy of remote tactical attrition. Contemporary military technology affords Russia a broad spectrum of tactical alternatives, enabling a shift toward the systematic, positional degradation of both the Defence Forces and frontline civilian infrastructure. In this scenario, the adversary would simply compress its engagement zone, opting for sustained, standoff bombardment rather than committing to continuous breach attempts.

Conclusion: Given the adversary's inherent adaptability within the modern operational environment, securing victory by inflicting a localised "functional defeat" along isolated vectors — without systematically dismantling the broader Russian military apparatus — remains fundamentally untenable. Provided the Russian Federation sustains its domestic resource base and maintains internal political cohesion, it possesses the strategic endurance to combine these approaches and prosecute a protracted war of attrition indefinitely. Moreover, as the current technological phase transition in warfare remains fluid, the operational paradigm has yet to reach a stable plateau. Consequently, any isolated functional defeat imposed upon the enemy could be rapidly negated by structural adaptation and the accelerated fielding of novel technological solutions.

3. The concept of "terminal defeat" as Ukraine's new model of victory in the realities of 2026

3.1. Vision of victory through "terminal defeat".

Rather than relying on the "functional defeat" paradigm — relegating it to a subordinate role as a necessary but fundamentally insufficient condition — this brief proposes the adoption of a "terminal defeat" model. The strategic vision of this paradigm is defined as follows:

To guarantee enduring security, it is imperative to achieve the complete structural dismantlement of the Russian Federation's war-fighting capacity and the collapse of its current aggressive political regime. A temporary ceasefire is wholly inadequate; it would serve merely as an operational pause, affording the adversary the critical time required for force regeneration — irrespective of the prevailing sanctions regime — and inevitably culminate in renewed hostilities.

This approach is dictated by the existential nature of the adversary's strategic objectives (the total eradication of Ukrainian statehood) and the profound depth of the conflict's escalation. The Russian political regime has irreversibly transitioned into a state where perpetual warfare, or constant mobilisation for it, serves as the foundational pillar sustaining its authoritarian vertical of power. Consequently, even if Ukraine's strategic end-state were strictly limited to securing a sustainable peace — forsaking the kinetic restoration of territorial integrity, the prosecution of war crimes, and the exaction of reparations — any compromise predicated on "freezing" the conflict equates to nothing less than a deferred defeat.

The foundational tenets of the "terminal defeat" concept base on the following assumptions:

1. **The principle of irreversibility.** Any strategic end-state that permits adversary force regeneration — whether through a war of economic attrition, a functional defeat model, or a technical ceasefire predicated on subsequent strategic deterrence — is fundamentally flawed. Given Ukraine's acute demographic vulnerabilities and medium-term economic risks, the state cannot afford a hollow victory that merely guarantees a deferred defeat.
2. **A pragmatic assessment of capabilities and resources.** Simultaneously, it must be acknowledged that Ukraine lacks the aggregate combat power required to achieve the physical destruction, or even the comprehensive functional neutralisation, of the Russian military apparatus and its political regime through conventional, symmetrical warfare. Consequently, an asymmetric strategic approach is imperative.

3. **The technological phase transition of warfare.** The conflict's technological baseline is currently undergoing a fundamental, qualitative paradigm shift, comparable in scale to the historical transition from edged weapons to firearms. This dictates a comprehensive structural overhaul of the Defence Forces across all echelons: encompassing weapons systems, procurement models, force generation pipelines, organisational architectures, and command and control (C2) networks. The combatant that executes this systemic transformation more holistically and rapidly will secure a decisive operational overmatch.
4. **The rigorous application of the Ends-Ways-Means paradigm.** The acute disparity between politically mandated strategic ends (the restoration of territorial integrity and the penalisation of the aggressor) and available means (constrained material and human resources) structurally undermines the viability of those objectives. Dictating strategic ends divorced from the realities of available means inevitably leads to operational overreach. However, the critical and critically underutilised variable in this equation is *Ways* (operational concepts and courses of action). *Ways* constitute the most flexible strategic instrument. As the chasm between ends and means widens, the *ways* in which the war is prosecuted must become correspondingly radical, unconventional, and transformative.
5. **The strategic bifurcation point.** There is, however, an absolute threshold: resource asymmetry can become so severe that even the most radical operational *ways* cannot bridge the gap. Approaching this threshold necessitates either a drastic recalibration of strategic ends or their complete abandonment in favour of achievable benchmarks. The foundational hypothesis of the "terminal defeat" concept is that Ukraine has not yet crossed this point of no return; the opportunity to avert a negotiated capitulation persists. Seizing this opportunity, however, demands the absolute maximisation of institutional and operational efficiency. Should this structural transformation be delayed, the ends-means gap will rapidly become insurmountable.
6. **The prioritisation of decisive Lines of Effort (LOEs).** An effective grand strategy does not consist of aspirational objectives, but rather the precise identification and exploitation of specific operational nodes that yield maximum systemic impact. This model identifies several critical LOEs designed to generate exponential efficiency growth. National resources must be ruthlessly prioritised and concentrated along these decisive axes, while secondary operational directions are sustained through an economy-of-force approach.

The core of this proposed operational framework—conceptually termed the "Middle-earth Strategy"[5] — transcends mere deterrence or asymmetric mitigation against a materially superior adversary. Rather, it constitutes a definitive strategy

[5] A strategic metaphor derived from J.R.R. Tolkien's epic fantasy, The Lord of the Rings.

engineered for the "terminal" (i.e., ultimate) resolution of the military security threat. It seeks the structural eradication of the threat's source, rather than its mere repulsion, maintaining a credible deterrent posture only as long as required to execute this systematic destruction. The realisation of this strategic design will likely be protracted, necessitating the seamless, integrated application of both conventional and asymmetric instruments of national power.

The strategy is fundamentally predicated on two interdependent operational vectors:

1. **The liquidation vector.** This entails the precise identification and systematic exploitation of critical vulnerabilities within the Russian Federation to generate cascading, irreversible, and strategically ruinous effects. Operational efforts are concentrated on striking the absolute "bottlenecks" sustaining Russia's vital state functions and military-industrial apparatus. The baseline objective (the "minimum" programme) is the long-term neutralisation of the adversary's war-making capacity. The maximalist objective (the "maximum" programme) envisions the total collapse of the current political regime and the structural disintegration of the Russian Federation.
2. **The deterrence vector.** This mandates the establishment of a "minimally sufficient deterrence" posture along the forward line of own troops (FLOT) and within the national airspace. Crucially, this is a temporally limited, economy-of-force function. Its primary imperative is to secure the defensive perimeter and buy the operational time necessary for the liquidation vector to culminate in its strategic objectives.

While the overarching architecture of this strategy may initially appear intuitive, its successful realisation hinges not on broad conceptual strokes, but on the precise, granular nuances of its operational execution. It is exactly these implementation mechanics that the "terminal defeat" concept seeks to operationalise.

3.2. The liquidation vector: priorities and instruments.

Priorities

The Operational Focus of the Liquidation Vector: Catalysing Irreversible Degradation. This approach transcends linear attrition achieved through the temporary kinetic engagement of critical infrastructure, which remains inherently repairable. Instead, the objective is to map systemic vulnerabilities and project combined (kinetic and non-kinetic) power against the critical nodes of Russia's national economy and state apparatus, thereby triggering irreversible, cascading degenerative effects. This must precipitate the systemic corrosion of the

adversary's aggregate military potential and the structural degradation of the Russian Federation across three primary axes:

- **Economic:** Transitioning from a strategy of mere attrition to one of systemic structural collapse. The objective is to dismantle foundational industries to an extent that precludes linear economic reconstitution.
- **Technological:** Engineering a forced regression toward a resource-extractive paradigm, effectively blockading technological advancement across strategic sectors for decades.
- **Cognitive:** Weaponising existing social fracture lines, shaping the information environment, and actively fostering the preconditions for state fragmentation.

The Strategic Imperative for the End-State: The overt and latent destructive processes initiated by this vector must achieve critical mass and operational autonomy. Even in the event of a coerced armistice — should a structurally exhausted Russia attempt to leverage US-brokered negotiations as an exit strategy — the internal decay of the adversary's state apparatus must proceed autonomously, wholly independent of kinetic operations along the forward line of own troops (FLOT) or in the aerospace domain.

This operational concept can be characterised as the "Spider Strategy": delivering a precision, paralysing strike (the injection of a systemic disruptor) and subsequently maintaining a defensive stand-off distance for force preservation, while irreversible, terminal processes consume the host system.

> Target Identification Methodology. Grounded in system-of-systems analysis, this methodology defines a strategic "bottleneck" as a critical node or process that fundamentally underpins the operational architecture of the entire adversary system. The neutralisation of such a node precipitates a catastrophic, cascading collapse across subordinate subsystems. The identification of these high-value strategic targets is dictated by the following matrix of criteria: structural criticality, prohibitive reconstitution, non-substitutability, cascading impact, and operational obscurity.

Undoubtedly, the precise identification and localisation of Russia's critical vulnerability nodes demand separate, exhaustive research. However, at this juncture, several fundamental characteristics that dictate the parameters of this targeting process can be delineated. The primary constraint stems from the structural realities of the modern globalised system, characterised by profound interdependence across scientific, informational, technological, economic, and financial domains. Projecting power against the Russian Federation to induce cascading degenerative effects is thus complicated by the acute risk of collateral disruption to the broader global economy. A salient example is the uranium enrichment sector: the European Union's nuclear energy infrastructure remains critically dependent on Russian output (accounting for 46%), as does the United States to a lesser extent (20%), with the expansion of alternative capacities lagging significantly behind operational requirements. Notwithstanding these systemic

constraints, several viable operational options merit consideration (some of which are already being partially executed by the Defence Forces of Ukraine). These lines of effort can be categorised by their desired effects and strategic end-states.

1. Targets for kinetic engagement (yielding "global" or systemic consequences for the Russian Federation, but predominantly localised impacts on the international system).
2. The diplomacy of "deterrence exchange".

This conceptual framework operates on the premise that Russia's economic resilience relies not solely on hydrocarbons, but also on the export of other commodities deemed critical by Western partners. It envisions the acquisition and prospective employment of deep-strike capabilities targeting infrastructure sensitive to allied economies, actively leveraging this threat matrix in negotiations over the sanctions regime. The underlying logic rests on the principle of coercive necessity: Ukraine signals its readiness to exercise operational restraint in exchange for the comprehensive enforcement of secondary sanctions. The core proposition dictates that while Ukraine retains the kinetic capability, it formally commits to withholding strikes against critical nodes such as "Rosatom" uranium enrichment facilities, major gas pipelines and distribution hubs, and potentially critical infrastructure within the ammonia production cycle. The reciprocal demand requires allied partners to institute robust, actionable mechanisms — moving beyond purely declaratory measures — that definitively sever the supply chains of critical dual-use imports to the Russian Federation. This specifically targets European microelectronics, high-precision metal-cutting machinery (primarily from Germany and Japan) — which are absolutely vital to the sustainment of Russian heavy industry — and large-diameter industrial bearings essential for the aerospace and heavy manufacturing sectors. Consequently, a hybrid strategic posture emerges — integrating precision deep strikes against strictly "legitimate" military-industrial targets with a policy of coercive sanctions diplomacy. Within this framework, Ukraine's abstention from vertical escalation against globally sensitive targets is directly exchanged for an absolute, verifiable technological blockade of the aggressor state.

3. Cognitive operations.

This operational vector necessitates the development and execution of a series of coordinated cognitive warfare campaigns, the primary objective of which is to identify, amplify, and actively exploit the latent socio-political fractures already present within the aggressor state's populace. This effort aims to catalyse a systemic shift in public consciousness, delegitimising the war as a viable policy instrument, and ultimately precipitating the activation of political resistance, internal destabilisation, and separatist movements. The core supporting narrative designed to shape a favourable information environment for these cognitive operations is as follows: "Ukraine is not waging war against Russian society or the

diverse peoples of the Russian Federation, but rather against the malign threat embodied by Putin's dictatorial regime and the faction of the Russian populace actively enabling the war. Ukraine seeks a stable future for the peoples of Russia, and consequently, it remains resolute in eradicating the systemic evil that stifles their development and strips them of a viable demographic, economic, and civilisational future." Primary target vectors for cognitive exploitation:

- ***Wealth inequality.***

Russia exhibits one of the most extreme wealth distributions globally (with 1% of the population controlling approximately 70% of assets). The relentless prioritisation of war-sustaining expenditures and the overtly anti-social structure of the 2026 state budget, compounded by the onset of systemic stagflation within the national economy, have exacerbated this vulnerability to a threshold highly susceptible to cognitive exploitation[6].

- ***Generational fracture.***

Stark ideological divergences and contrasting levels of regime loyalty persist between younger demographics and older generations. Among the youth, overt approval for the war is markedly lower than within the 55+ cohort (approximately 60% compared to 80%).

- ***The "centre-periphery" divide regarding participation in the "SMO".***

Major metropolitan centres (primarily Moscow and St. Petersburg) substantially eclipse provincial regions in living standards, income levels, and information access. This disparity has engineered a force generation model wherein the primary manpower pool for the war in Ukraine relies heavily on peripheral, economically depressed regions. Conversely, these major urban centres harbour the highest concentrations of anti-regime sentiment (reaching up to 25%).

- ***"Towers" of latent opposition within the regime elite.***

Vladimir Putin has consolidated an authoritarian vertical leaving minimal operational space for overt opposition. While the majority of the political elite formally signal allegiance to the president and the "special military operation," the empirical nature of this support is predominantly passive and conformist.

- ***Passive anti-war sentiment among the general populace.***

Despite the ostensibly high approval ratings for the "SMO" recorded in domestic sociological surveys, empirical indicators — such as the mass exodus of approximately 700,000 Russian citizens during the initial two weeks of the 2022 mobilisation campaign — demonstrate that a substantial segment of the population harbours a profound reluctance to participate in hostilities, presenting a critical vulnerability for cognitive operations.

- ***The ethnic dimension.***

Strategic exploitation should target three primary fracture lines: 1) between ethnic Russians and structurally marginalised minority populations; 2) between the

[6] According to polls, approximately 60% of Russians consider the construction of a society of equal opportunities to be a priority, rather than "great-power status" or "traditions".

broader Chechen populace (and the North Caucasus generally) and the "Kadyrovites," framing the latter as quislings and enforcers for the dictatorial regime against the people of Ichkeria; and 3) disparities in force generation for the "SMO" (where a disproportionately high percentage of combat personnel and frontline casualties are drawn from economically depressed national republics such as Dagestan, Buryatia, Tuva, and Yakutia). Cognitive operations must be synchronised in coordination with diaspora representatives of non-Russian ethnicities (including Buryat, Tatar, and Kalmyk activists) and elements of the movement advocating "for the decolonisation of Russia".

- ***Great Russian chauvinism and inter-ethnic hostility as an independent vector.***

Over four years of high-intensity conflict, sociological data indicates a marked escalation in xenophobia; a substantial segment of the ethnic Russian population exhibits growing distrust toward individuals of Caucasian and Central Asian descent.

- ***The religious dimension.***

State ideology increasingly instrumentalises Russian Orthodoxy as the cornerstone of national cohesion (evidenced by the Kremlin's deep integration with the Russian Orthodox Church and Patriarch Kirill's doctrinal endorsement of the war). Conversely, the state's demographic reality features a substantial Muslim minority (approximately 10–15%), alongside a vast secular constituency and numerous smaller denominations, establishing a high probability of sectarian friction.

Regional dissent and anti-centre sentiment.

Since the early 2000s, Moscow has systematically eroded regional autonomy across all domains, encompassing linguistic policy and fiscal federalism. Consequently, in republics such as Tatarstan, Bashkortostan, and Yakutia, there are pronounced sentiments of sovereign nostalgia, presenting ripe targets for exploitation. Furthermore, the post-2022 wartime economy has generated new socio-economic grievances; while it artificially stimulated specific military-industrial hubs in the Volga and Ural regions, it simultaneously precipitated a severe recession in southern agrarian sectors and civilian industrial centres. In these neglected territories, living standards have precipitously declined due to rampant inflation and critical import deficits.

Desired End-State: the successful inception into the collective consciousness of ethnic Russians that domestic crises are the direct consequence of the Putin regime, coupled with the cultivation of a separatist narrative among ethnic minorities, residents of specific republics and autonomous okrugs asserting that their geopolitical and economic viability is contingent upon independence from Moscow.

An independent operational vector: regenerative cognitive engagement targeting the Ukrainian populace within the temporarily occupied territories (TOT), to neutralise Russian indoctrination and psychological alienation

campaigns, as well as to sustain a resilient pro-Ukrainian identity despite a deliberately engineered information blockade. Strategic communications must unequivocally convey a clear signal that the Ukrainian state has not forsaken its citizens, and the current operational pause in territorial liberation is dictated entirely by the tactical necessity of force preservation and civilian safeguarding, rather than by political capitulation.

Instruments

The primary institutional instruments tasked with executing the strategic objectives of the liquidation vector encompass the Security Service of Ukraine (SSU), the Main Directorate of Intelligence of the Ministry of Defence (HUR MoD), the Foreign Intelligence Service of Ukraine (SZRU), the Special Operations Forces (SOF), and the 1st Separate Centre of Unmanned Systems within the Unmanned Systems Forces.

This existing operational capacity requires significant scaling and enhancement, particularly regarding the execution of sabotage operations deep within the enemy's rear, alongside the strategic planning and execution of deep-strike operations across the adversary's strategic depth.

Concurrently, to elevate Deep Strike capabilities to a qualitatively advanced echelon, it is imperative to focus on three fundamental vectors of force development.

1. Defining the core paradigm for Deep Strike capability development predicated on autonomous (self-organising) swarm architectures.

The strategic imperative extends beyond the mere quantitative scaling of legacy UAS platforms — which exhibit diminishing returns in penetrating modern Integrated Air Defence Systems (IADS). Instead, it necessitates the fielding of a next-generation Deep Strike architecture fundamentally driven by the integration of advanced sensor fusion, resilient navigation matrices, autonomy technologies, and cooperative swarm behaviour. The prevailing strike architecture, which relies on massed, combined-arms barrages (integrating ballistic/cruise missiles, strike UAS, and decoys) orchestrated through rigid, pre-programmed route planning, seeks to oversaturate enemy IADS through the spatial concentration and temporal deconfliction of assets, followed by battle damage assessment (BDA) via space-based reconnaissance. However, this remains a transitional, hybrid model, heavily dominated by elements of legacy warfare paradigms. The prospective operational model (the future force design) envisions reconnaissance-strike networks built upon self-organising, heterogeneous UAS swarms and "intelligent" long-range precision munitions. Within this paradigm, functions such as persistent Intelligence, Surveillance, and Reconnaissance (ISR), Suppression of Enemy Air Defences (SEAD), dynamic route generation, and real-time engagement verification are natively integrated directly into the mission matrix. The spatial and temporal distribution of the strike becomes highly adaptive and

autonomous rather than statically pre-programmed. Furthermore, it incorporates highly automated target allocation within the swarm, maintaining a "human-on-the-loop" capability for partial remote oversight by a high-level operator. It is precisely toward this conceptual framework (networked, adaptive strike complexes driven by UAS) that the adversary is pivoting, actively refining the technical parameters of the "Geran"/"Gerbera" munition families. Upon reaching technological maturity, traditional ballistic and cruise missiles will be structurally outmatched in cost-exchange ratios by highly proliferated, low-cost, precision agent swarms. These swarms will possess the capacity to execute surgical strikes with microscopic precision (e.g., systematically disabling high-voltage switchgear at critical energy nodes without necessitating the total kinetic destruction of the facility). Concurrently, they will act as precursor elements, surgically "clearing" the airspace for heavy, intelligent munitions during strikes against deeply buried or heavily fortified targets.

2. Expanding the operational engagement radius (Long Strike capability).

It is strategically imperative to prioritise the development and rapid scaling of extreme long-range fires (1,000–3,500+ km). The overarching goal is to establish an "ubiquitous strike capability", systematically denying the adversary the operational sanctuary required to preserve strategic assets within its deep rear.

3. Developing sovereign space-based reconnaissance and resilient digital satellite/pseudo-satellite communications.

It is strongly recommended to advance this line of effort, specifically through deepening strategic-technical cooperation with commercial aerospace entities within highly reliable partner nations, namely: ICEYE (Finland); Kongsberg NanoAvionics (Lithuania); Andøya Space Center (Norway); and the Esrange Space Center alongside TERASi (Sweden).

4. Systemic scaling of cognitive warfare capabilities (leveraging the combined institutional resources of the HUR MoD, SSU, and SOF).

3.3. The deterrence vector: priorities and instruments.

Within the framework of the "terminal defeat" concept, the presence of a liquidation vector — directed at the permanent eradication of the Russian threat — imposes fundamental structural parameters and operational constraints upon the deterrence vector. These include:

- ***Reconceptualising the role of defence.***

Prioritising the liquidation vector fundamentally shifts the warfighting paradigm along the forward line of own troops (FLOT). It establishes the preservation of the combat effectiveness of the Defence Forces as the absolute priority, superseding the strict retention of terrain. Consequently, the objective of the deterrence segment is no longer the static defence of every square kilometre at the cost of disproportionate and irreplaceable personnel casualties (especially when the terrain has already been reduced to a "lunar landscape"). Instead, the focus shifts

to maintaining a contiguous defensive perimeter and preserving coherent, fully commanded military formations. In this context, defensive operations are designed to generate the operational time-lag required for the liquidation vector to achieve its strategic objectives. Accordingly, tactical retrogrades or withdrawals from specific settlements and positions are entirely acceptable, provided they facilitate force preservation and align with the broader strategic design. This approach is predicated on the understanding that once the primary objective (the systemic destruction of the adversary) is achieved, lost territories will be de-occupied "automatically" as a direct consequence of the enemy's structural collapse (analogous to the aftermath of the Third Reich's collapse in World War II). Conversely, expending critical resources on the immediate kinetic recapture of tactical positions — without a comprehensive vision and operational plan to secure a strategic turning point — leads to a strategic dead end.

- ***The transition from strategic to time-constrained deterrence.***

Synchronising these two operational vectors dictates the abandonment of the "strategic deterrence" concept, which relies on enduring continuous attritional pressure for an indefinitely prolonged period and perpetually "plugging gaps" within a fragile defensive architecture. Instead, it necessitates the operationalisation of a "minimally sufficient, time-constrained deterrence" model. This paradigm shift enables a more accurate formulation of technical and tactical priorities, alongside the optimised allocation of highly constrained resources between frontline combat requirements and deep-strike capabilities.

- ***The dynamic balance of resources and priorities.***

A dynamic equilibrium must be rigorously maintained between the liquidation and deterrence vectors. An excessive resource skew towards scaling Deep Strike capabilities and bolstering rear-area Integrated Air Defence Systems (IADS) at the expense of frontline operational requirements is unacceptable. Should the defensive perimeter collapse, the liquidation vector inherently loses both its strategic rationale and its operational base. Regarding the frontline, the paramount objectives along the line of contact are defined as follows: stringent force preservation, the retention of the operational initiative and control of the battlespace, and the categorical rejection of a fatalistic perception regarding tactical terrain exchanges. Such exchanges must be viewed as acceptable operational trade-offs if executed in the interest of systematically degrading the adversary's command and logistics chains, thereby preserving the Armed Forces to secure ultimate victory.

3.3.1. Deterrence in the combat zone.

Priorities

At the operational and tactical levels, the strategic objective of the deterrence vector is to stabilise the defensive line and engineer operational conditions wherein the adversary's irreversible casualty rate structurally exceeds its force

regeneration and mobilisation capacities. This calculus underpins the target metric articulated by the new leadership of the Ministry of Defence: the elimination of 50,000 occupying personnel per month, a sustained attrition rate designed to precipitate the natural paralysis of the enemy's offensive combat potential. However, the strategy within this segment cannot be considered fully mature without accounting for two critical variables capable of fundamentally altering the character of the conflict:

- ***The adversary's transition to a tactic of remote attrition from a posture of positional defence.***

As previously noted, even in the event of a forced culmination of active offensive operations, the adversary is unlikely to cease hostilities entirely. Instead, they will likely transition to a defensive posture, continuously expanding and densifying their own kill zone to execute a tactic of positional, remote attrition against any mobile targets. The technological architecture enabling this paradigm of warfare is being continuously refined through the integration of cutting-edge concepts in remote command and control (C2), autonomous UAS, "mothership" carrier drones, fibre-optic-controlled munitions, and airborne relay networks.

- ***The risk of general mobilisation within the Russian Federation.***

The probability cannot be entirely discounted that the Russian politico-military leadership, acting counter to strategic rationality, may declare a general mobilisation rather than culminate their offensive. This remains a viable contingency, given that beneath the facade of the "SMO," the confrontation constitutes an existential war of attrition. Currently, the manpower deficit serves as a strategic bottleneck for Russia; however, this deficit is artificial, generated entirely by the self-imposed recruitment constraints of the "SMO" format. While a general mobilisation carries the profound risk of a social explosion for the Kremlin, the guarantee of such a domestic outcome cannot be assured. In the absence of sustained internal resistance and the successful execution of such a mobilisation, the adversary's aggregate personnel strength would increase exponentially.

These risks necessitate the integration into the deterrence strategy of two supplementary imperatives:

- ***A radically enhanced level of force survivability*** across the first and second echelons within a hyper-lethal battlespace and immediate tactical rear, both of which are oversaturated with persistent Intelligence, Surveillance, and Reconnaissance (ISR) and precision-guided munitions (PGMs).
- ***The densification and exponential scaling of the friendly engagement area to a threshold capable of stemming an increased influx of occupying forces.*** It is imperative to preemptively calculate and operationalise the capacity to scale the density and lethality of the friendly kill zone to a level sufficient to "absorb" (effectively neutralise) even a

multiple surge in enemy manpower, converting this numerical mass from a strategic threat into an opportunity for massed fires.

The imperative of human capital preservation. The first of these two priorities—ensuring force survivability — constitutes an urgent strategic necessity. Combat-ready personnel today represents the most critical bottleneck and the paramount non-renewable asset underpinning Ukraine's military security. The current attrition trajectory of this resource is deeply concerning. Therefore, any strategy for victory and deterrence remains viable only upon the implementation of a comprehensive framework designed to drastically decelerate casualty rates. Absent the guaranteed survivability of personnel, sustaining the deterrence vector until the liquidation vector achieves its strategic objectives is functionally impossible.

Instruments

The primary institutional instruments tasked with executing the strategic objectives within the deterrence vector are the Armed Forces of Ukraine (AFU) and other military formations comprising the Defence Forces of Ukraine. To achieve peak operational effectiveness in their employment, fundamental transformations are required across their warfighting doctrine, force design (organisational and staff structure), and force generation systems.

1. Inverting the operational roles of infantry and unmanned systems.

> "Role inversion" — is a conceptual metaphor rather than a directive for physical repositioning. Paradoxically, due to the lack of appropriate structural transformation within the Armed Forces to meet current operational requirements, this physical inversion has already occurred across specific sectors of the front. Consequently, UAS/UGV crews are operating as the forward-most defensive units, an entirely anomalous and unsustainable operational posture.

This refers to a fundamental inversion in the qualitative and quantitative ratio between traditional infantry, motorised, and mechanised units on one hand, and unmanned systems (UxS) units on the other. In reality, this shift has already occurred de facto within specific military formations driven by inexorable operational necessity; however, this remains a product of reactive adaptation rather than systemic structural reform. Just as the historical transition from cavalry to mechanised warfare dictated a radical reduction in mounted troops in favour of armoured crews, the contemporary phase of warfare demands a contraction in conventional ground forces alongside an exponential expansion of UxS formations.

Within the new target force structure — currently being tested by leading militaries, analogous to the US Army's "multipurpose company" concepts — the infantry footprint is minimised. The primary emphasis is placed squarely on standoff reconnaissance and Beyond Line of Sight (BLOS) strike capabilities.

The global operational environment is entering the era of the "intelligent battlespace," where autonomy, sensor fusion, and network effects determine

decisive outcomes, superseding the legacy tactical and technical characteristics of heavy armour or the traditional proficiency of its crews. Therefore, the future trajectory of combat operations lies exclusively within the domain of robotic systems — spanning teleoperated platforms, semi-autonomous assets, and self-organising collaborative swarms.

Conclusion: all forward-edge combat functions must be rapidly and maximally robotized.

Critical imperative: despite the remote nature of UxS operation, drone crews have emerged as high-priority and acutely vulnerable targets on the battlefield. Given that these operators currently constitute the most valuable capability within the Defence Forces in terms of generating operational effects, and acknowledging the availability of advanced teleoperation technologies, the immediate priority must be the aggressive integration and scaling of remote-control architectures and standard operating procedures (SOPs). The objective is the rapid extraction of the majority of operators far beyond the tactical battlespace, while hardware is rapidly deployed into the area of operations (preferably delivered by other UAS or UGV platforms). This constitutes a paramount priority because the transition to secure, standoff teleoperation represents the next critical milestone in the technological phase transition of robotic warfare. The combatant that first operationalises this architecture on a strategic scale will secure an overwhelming operational advantage.

Phasing of force expansion (Unmanned Systems Forces [USF] and UxS components within other service branches):

- ***The scaling of the USF to 5% of the total Armed Forces of Ukraine (AFU) personnel, as declared by the current Commander of the Unmanned Systems Forces.*** This constitutes the absolute minimum threshold required to transition from passive defensive tactics (necessitating the forced prioritisation of enemy infantry attrition merely to protect friendly positions) to the systematic seizure of the operational initiative. It enables the capacity to establish battlespace dominance, executing the cascading degradation of the adversary's command and control (C2), logistics networks, and situational awareness at both the tactical and operational-tactical echelons.
- ***Expanding the USF to 10% of the total AFU force structure.*** This will unlock the capability to comprehensively halt adversary advances across the entire front. It relies on the scaling and proficient operational employment of "long-arm" technical modules (airborne relays, mothership UAS, autonomous UGV carriers, teleoperation architectures, and low-cost medium-strike assets akin to the "Blyskavka" UAS) to systematically degrade enemy combat formations in depth and force their incremental displacement.
- ***Expanding the USF to 20% of the total AFU force structure.*** While potentially controversial within traditional military paradigms, this

expansion is an absolute necessity to achieve strategic risk management. This metric serves as a critical operational failsafe against the contingency of a general mobilisation within the Russian Federation. Only such a dense saturation of unmanned systems will permit the effective neutralisation of exponentially larger adversary formations while minimising risk to friendly personnel. This capability must be generated preemptively.

- ***Achieving an approximate 40% integration rate*** of unmanned components within other AFU service branches, and elevating the aggregate proportion of robotized units within the Defence Forces (inclusive of the USF) across all three operational domains to 60%[7].

Such a structural transformation in no way diminishes the role of the infantry, which remains critically important, but undergoes cardinal changes within the framework of the Manned-Unmanned Teaming (MUM-T) concept — the integration of human operators and robotic (autonomous) combat systems.

Acknowledging the necessity (and inevitability) of a phased transition, the ultimate desired end-state must be recognised as an optimised battlespace wherein the forward edge of the battle area (FEBA) or first echelon requires absolutely no physical human presence. Concurrently, the exponential increase in the lethality of the second echelon must be accounted for.

Under these conditions, rather than executing legacy assault and defensive functions, the infantry transforms into highly mobile force protection details for UxS operators, alongside technological support and troubleshooting elements during both offensive and defensive operations. This dictates a clear operational requirement: a quantitative reduction in infantry formations coupled with a simultaneous, exponential increase in the quality of their training (elevating them to Special Operations Forces [SOF] standards), including close-quarters combat (CQC) proficiency adapted to the new operational environment.

Conclusion: the "wall" strategy is fundamentally ineffective because, within the context of a war of attrition of this magnitude, this wall is invariably sustained by living personnel, resulting in unavoidably high and irreversible casualty rates. Simultaneously, Ukraine's severe (near-catastrophic) demographic and mobilisation constraints demand — and the logic of the conflict's technological phase transition enables — the replacement of a "wall of personnel" with a "wall of robotic systems." Given the new technological realities, this will not constitute an artificial or unfeasible intervention into the logic of the war, but rather the acceleration of its natural, ongoing evolution. The technical solutions already exist; the strategic task now lies in the institutional courage and focused effort required to scale them, alongside the urgent realignment of the Armed Forces' operational concepts and overall force design.

[7] These percentages and phasing benchmarks are proposed as a baseline for subsequent doctrinal debate and do not claim definitive empirical exactitude.

2. **The establishment of a robotized exclusion zone.**

The isolated scaling of unmanned and robotic systems (UxS) units does not constitute a self-sufficient operational solution for executing the deterrence vector's objectives. Their operational efficacy is strictly contingent upon profound integration with advanced engineering and fortification infrastructure, synchronised within a unified "Kill Web" architecture. The ultimate strategic end-state of this process is the creation of an uncrewed, robotized zone of guaranteed destruction and exclusion along the forward line of own troops (FLOT) and the international border with the Russian Federation. This constitutes a "zone of guaranteed lethality" — an environment rendered absolutely impassable to dismounted infantry, mechanised manoeuvre, and aviation. Within this battlespace, the Defence Forces can persistently impose a structurally unacceptable casualty-exchange ratio against any adversary offensive action.

To operationalise this effectively, military specialists postulate the strategic necessity of extending the operational separation distance to 20 kilometres.

The structural functioning of such an exclusion zone is predicated upon a triad of interdependent elements:

- ***Sensor networks*** – a unified Intelligence, Surveillance, and Reconnaissance (ISR) environment, ensuring comprehensive situational awareness. It establishes the conditions for the tracking and engagement of any adversary asset via a centralised perimeter C2 (command and control) system, which incorporates acoustic, thermal, and optical sensors, subterranean seismic detectors, as well as aerial and ground-based semi-autonomous platforms. Persistent 24/7 monitoring is executed by satellite constellations (both Electro-Optical and Synthetic Aperture Radar [SAR]) and ISR UAS of all classifications.
- ***Robotic and autonomous reconnaissance-strike networks*** – systems capable of detecting, identifying, and engaging targets with minimal sensor-to-shooter latency, operating in fully autonomous or semi-autonomous modes. During the transitional phase, the retention of modern artillery assets is planned, engineered to precisely and seamlessly cover the entire zone in strict accordance with their tactical and technical characteristics.
- ***The air defence component.*** To ensure the absolute airspace denial of the zone, it is necessary to mass low-cost interception systems capable of neutralising any aerial targets (including fixed-wing, FPV, and autonomous rotary-wing sentry UAS). The kill chain is executed via a fleet-management network comprising hundreds of distributed, dispersed teleoperation nodes. Furthermore, all systems must possess not merely basic redundancy, but 4–5 resilient, fallback communication channels to rapidly reconstitute the perimeter in the event that a specific node is subjected to electronic attack or suppression.

- ***A comprehensive obstacle network*** – the integration of non-explosive obstacles and command-detonated minefields, seamlessly incorporated into the broader defensive architecture. The fortification component includes up to 5 lines of deep and wide anti-vehicle ditches (incorporating concertina wire/Bruno's spirals internally), which are flanked on all sides by "smart" minefields and various multi-domain booby traps (ground, aerial, subterranean). Enemy breaching operations within such a belt are rendered functionally impossible by the persistent overwatch of unmanned system crews executing remote, standoff mining.

The cognitive component of this approach: demonstrating a transition to a posture of "paranoid defence," which unequivocally signals to the adversary: the Defence Forces are prepared to sustain resistance for another 50 years and systematically attrit 50,000 enemy personnel monthly — but exclusively through technological overmatch, without expending friendly human capital.

Critical imperative: considering the plans of European NATO member states to construct an analogous defensive architecture along the Alliance's eastern border (the Eastern Flank Deterrence Line project), it is strategically expedient to synchronise efforts to achieve a systemic force-multiplying effect. It is proposed to actively advocate at the consultative level of the NATO-Ukraine Council for a model of mutually beneficial partnership, wherein the partners' contribution consists of providing the resources necessary to scale the technical, organisational, and operational solutions that have been rigorously verified under actual combat conditions in Ukraine, while Ukraine's contribution lies in the transfer of unique operational expertise and combat-proven technologies. The strategic consequence of this initiative would be the informal, yet *de facto*, integration of Ukraine into a unified NATO defensive perimeter, thereby significantly reinforcing the broader pan-European security architecture.

3.3.2. Deterrence within Ukraine's airspace.

Priorities

Within the airspace deterrence segment, the "terminal defeat" concept similarly dictates a fundamental shift in strategic objectives: transitioning from the pursuit of absolute strategic protection over an indefinite duration to a paradigm of minimally sufficient deterrence. This approach necessitates, among other imperatives, acknowledging a prevailing operational reality: a certain proportion of aerial attack platforms will inevitably penetrate the Integrated Air Defence System (IADS) and successfully prosecute targets within Ukrainian territory. This reality should not precipitate strategic despair (but rather serve as a pragmatic reinforcement of civil defence protocols and air raid compliance). Consequently, the strategy for counteraction and adaptation must be, above all, ruthlessly pragmatic. In strategic planning, at least in the near term, it is analytically sound to transition from an absolutist metric of "intercepting every threat" to a prioritised calculus: "which specific proportion (and classifications) of aerial threats

can and must be intercepted to prevent catastrophic degradation of national resilience and aggregate defence capacity." This mandates the conceptualisation of an architecture wherein the deficit of interceptor munitions and the inherent vulnerabilities of the airspace are transformed into managed, calculated risks.

This, in turn, facilitates the differentiation of the adversary's aerial threats based on three distinct criteria: 1) the empirical level of kinetic damage currently inflicted by each munition class; 2) the potential for exponential qualitative evolution and quantitative scaling of the threat; and 3) the existence of viable pathways for effective, cost-efficient (favourable cost-exchange ratio) neutralisation.

The hypothesis of this document (which requires ongoing empirical validation) posits that all three criteria converge unambiguously upon the segment of long-range attack UAS (the "Shahed/Geran/Gerbera" family) and prospective next-generation platforms within this class. These specific systems constitute the optimal delivery vectors for the integration of autonomy technologies and collaborative swarm behaviour. They possess a radically asymmetric cost advantage over traditional missiles, are already inflicting critical systemic damage to national infrastructure, and exhibit a high evolutionary trajectory toward surgical, lethal precision.

Conversely, while cruise missiles persist as a formidable threat, they are prohibitively expensive to manufacture at scale, and suffer from inherent limitations regarding speed and radar cross-section (RCS), rendering them increasingly vulnerable to a broad spectrum of legacy and modern IADS effectors. It is highly probable that, in the near future, they will be largely superseded by jet-powered attack UAS (colloquially termed "drone-missiles"). Similarly, ballistic missiles, despite their profound destructive yield, inherently represent a legacy generation of weaponry. In the context of a protracted war of attrition, their overall operational utility (dictated by the cost-to-precision ratio) will inevitably be eclipsed by the massive employment of teleoperated or fully autonomous unmanned systems and swarms.

Instruments

The proposed primary line of effort is the establishment of a counter-drone (C-UAS) shield. It is strongly recommended to focus core resources on achieving full operational maturity and scaling the C-UAS segment. Technically, the system must be predicated on highly cost-effective solutions across several classes, such as low-cost precision-guided missile systems (akin to the Estonian Mark 1), interceptor drones featuring autonomous terminal guidance (including jet-powered variants), "smart" turrets, and semi-autonomous laser-guided turrets. Organisationally, it must rely on a cohesive network of ground and airborne mobile fire groups, integrating private sector capabilities where viable.

The complete neutralisation of the UAS threat within Ukrainian airspace will effectively constitute the fulfilment of a substantial (if not the primary) portion of the mandate to secure the national airspace. Furthermore, it will significantly

alleviate the aggregate strain on the broader Integrated Air Defence System (IADS). The adversary's stockpiles of high-value missiles, while considerable, remain finite, and their production capacity is rigidly tethered to domestic economic conditions and access to sanctioned microelectronics and components.

Simultaneously, acknowledging the operational priority of the C-UAS fight does not negate the critical requirement for anti-ballistic missile (ABM) defence. However, the spectrum of viable solutions in this domain is objectively constrained. Currently, the sole effective shield relies on PAC-3 MSE (Patriot) interceptors, the efficacy of which is gradually degrading due to the continual modernisation of Russian ballistic platforms. The global inventory of these interceptors is exponentially smaller than the adversary's corresponding volume of offensive munitions, structurally condemning Ukraine to conduct ABM operations under conditions of perpetual deficit.

The strategic solution: Ukraine critically requires its own sovereign equivalent to the Patriot system. Despite the protracted R&D life-cycle, initiation is an immediate imperative. The logical foundational step is the execution of an urgent, comprehensive audit regarding the current developmental status of the Ukrainian "Kilchen" SAM (Surface-to-Air Missile) project. Subject to project viability, it must be accorded the highest national priority and resourced to accelerate development, scaling, and operational deployment. Because stark mathematical realities dictate that relying exclusively on Western IADS to achieve complete — or even partial — airspace denial is impossible due to objective constraints, the indigenous development of a sovereign equivalent emerges as the most self-evident, pragmatic solution. Ukraine remains one of only five nations globally possessing a full-cycle missile production capability. It is time to reclaim this strategic inheritance.

Since absolute protection against ballistic threats will be objectively unattainable in the short term, it is strategically expedient to initiate a programme for the relocation of the nation's most critical defence and life-support assets into subterranean facilities (SUF). This must transcend mere *ad hoc* measures, necessitating the formulation and implementation of a dedicated, long-term state programme to establish a "deep echelon." The initial phase should comprise an audit and structural engineering assessment of existing subterranean networks. A significant portion of these are Soviet-era legacy sites (mothballed command posts and strategic bunkers designed for nuclear contingencies, transport adits in the Carpathian Mountains, deep mine workings, and technical or decommissioned metropolitan subway tunnels beneath major urban centres), alongside modern infrastructure (deep subterranean parking levels within contemporary residential and commercial complexes). The subsequent phase would entail a rigorous evaluation to determine precisely which critical life-support and industrial manufacturing capacities can and must be physically relocated to these subterranean environments.

4. Hard decisions for hard times: creating conditions for the realisation of the terminal defeat strategy

The core lines of effort required to actualise the underlying "Dao" of the strategy for the Russian Federation's terminal defeat — and to reconcile its exceptionally ambitious objectives (Ends) with severely degraded operational capacities (Means) — necessitate not half-measures, but radical institutional transformations. These are designed to generate operational overmatch and elevate the quality of military command and control (C2), which are currently critically deficient, in order to fully exploit Ukraine's inherent systemic strengths and institutionalise real-time strategic adaptability.

Critical imperative: the framework outlined below does not constitute a linear sequence of steps, but rather identifies architectural bifurcation points — critical nodes of effort (gravity centres) where the targeted concentration of severely constrained resources is calculated to trigger a chain reaction of qualitative transformations, thereby securing a maximum, non-linear force-multiplying effect for overall defence capacity.

4.1. Morale of the nation

Any victory strategy will fail to secure victory, even if all its structural components are formally executed, without the critical "ingredient" – the requisite moral component of fighting power (morale). Furthermore, this morale must be calibrated not merely for "resilience," but explicitly for achieving victory.

Currently, a critical degradation in the level of public mobilisation is observed relative to the initial phase of the invasion. The decline in morale and the transition of a significant segment of society into a state of "internal emigration" or passive sabotage regarding their participation in national defence are driven by a complex of factors:

- **The crisis of expectations.**

Strategic communications policies designed to engineer inflated expectations regarding a rapid cessation of hostilities (particularly preceding and during the summer 2023 "counter-offensive" campaign) have precipitated psychological burnout and the profound demobilisation of the populace.

- **The perception of systemic injustice.**

The tactical employment of attritional "meat assaults" at the forward line of own troops (FLOT), coupled with coercive force generation practices ("busification") in the rear—against the backdrop of an absence of unit rotations, opaque draft deferment policies, and the negligible direct participation of the country's

political, intellectual, and financial elites (and their families) in the war effort—have fundamentally fractured the social contract.

- **The corruption factor.**

High-profile instances of systemic, protracted malfeasance within the force generation architecture and defence procurement sector have been highly effectively leveraged by adversary Information Psychological Operations (PSYOPS) to erode public trust in state institutions.

To reverse this trajectory of public sentiment, consolidate the majority, and restore the populace's belief in victory — whilst simultaneously incentivising their emergence from a state of entrenched social withdrawal—the implementation of two fundamental conditions is imperative.

- **Condition 1: The restoration of equity and the social contract.**

Society must receive an unequivocal signal: the war is the existential imperative of the entire nation — not merely within the rhetoric of the "United News" state telethon, but in empirical reality. Participation in the war effort must no longer be confined to a cohort of early volunteers and those coercively mobilised, who now find themselves effectively serving "life sentences" at the front, while the majority of the nation's populace remains disengaged from the conflict.

Execution mechanism: a radical overhaul of the force generation and recruitment architecture (detailed in Section 4.2).

- **Condition 2: A strategic vision for the future (The "Why").**

A strategy for victory cannot function exclusively upon the instinct of self-preservation and the subconscious paradigm of "returning to the pre-war reality." The status quo ante bellum is irrevocably lost; there is no reversion.

Achieving victory requires a transformation of national purpose and a cognitive shift from the passive "value of survival/resilience" (for which, in reality, a mere cessation of hostilities and the freezing of the conflict would suffice) to a proactive "strategy of victory."

Victory, in turn, demands a higher-order strategic objective — an answer to the questions: "What nation are we constructing post-conflict?", "For what ultimate purpose are we enduring these superhuman trials, beyond 'mere survival'?" This must constitute a vision of a new Ukraine, founded upon vibrant, modern strategic narratives that unify the nation. Absent this vision, even upon the termination of hostilities, we will deprive ourselves of the internal dimension of victory, and a substantial demographic of Ukrainians will refuse to repatriate and/or will additionally emigrate.

It is precisely the presence of a "Big Idea" — one that transcends the mere preservation of physical existence and retributive justice against the adversary — that serves as the critical catalyst capable of reconsolidating the nation and transforming the populace into a cohesive entity singularly focused on success.

Execution mechanism: as an initial step, to initiate collective strategic reflection upon this imperative, guided by the Zeitgeist (Spirit of the Times) and a forward-looking perspective, rather than adopting the paradigm of "letting the dead bury their dead."[8]

4.2. Changing the force generation model

A critical prerequisite for Ukraine's victory is the transition from an extensive personnel management model (an attrition-replacement-attrition cycle) to an intensive paradigm. This must be strictly predicated on force preservation and the qualitative development of human capital, aimed at systematically expanding the "combat-effective core" of the Defence Forces.

Since an immediate, total cessation of the force generation, replenishment, and tactical employment of conventional assault units is currently unfeasible (until the roboticisation of the force achieves a critical saturation threshold), operational reality dictates a more nuanced interim solution. The initial phase must mandate the implementation of a rigorous force employment standard that categorically prohibits "single-use" training and deployment cycles. Furthermore, the execution of any high-risk operations must mandate a strict prerequisite package of operational enablers: persistent aerial Intelligence, Surveillance, and Reconnaissance (ISR), synchronised fire support, combat engineering, established MEDEVAC (Medical Evacuation) protocols, and a guaranteed force reconstitution cycle.

The new force generation model: recruitment remains a hybrid architecture (prioritising voluntary recruitment coupled with targeted mobilisation, incorporating the right of selective unit assignment during the Basic Combined Arms Training phase). The core paradigm shift must involve the codification of strict operational tempo (OPTEMPO) limits — establishing a maximum duration for continuous deployment within high-risk zones, followed by a mandatory cycle of force reconstitution and rehabilitation. This serves as a critical operational failsafe against absolute combat exhaustion; instances where a single, uninterrupted deployment to a combat position exceeding 100 days renders a service member functionally combat-ineffective for months, years, or, in some cases, permanently.

Furthermore, it is proposed to introduce a distinct, tiered force structure, categorising service members into echelons with strictly differentiated conditions of service, risk exposure profiles, and compensation matrices.

1. **The "Combat Core" Category (direct combat engagement forces).**

This encompasses personnel executing high- and ultra-high-intensity missions with maximum threat to life (within the kill zone, immediate tactical rear, assault

[8] (Luke 9:60) — eschewing the path of ideological speculation on the past in favour of conceptualising the future and Eternity.

elements, UxS operators, and forward-edge SIGINT/EW elements). The force generation model is hybrid: prioritising voluntary recruitment, yet permitting targeted mobilisation governed by strict operational protocols (rigorous fitness-for-duty screening, full-spectrum training cycles, guaranteed rotation schedules, and the codified right to transition to lower-risk billets upon completion of a stipulated tour of duty). Additionally, a system of direct financial incentives is implemented for the verified kinetic destruction of adversary materiel and infrastructure. Crucially, however, the primary focus is placed on collective unit bonuses for achieving designated operational effects (retention of defensive positions, minimisation of friendly casualties, preservation of combat effectiveness), thereby incentivising unit cohesion and interoperability rather than individual "bounty hunting".

2. **The "Combat Support" Category.**

This incorporates headquarters elements within the area of operations (AO), the operational rear, and the execution of missions within the second echelon characterised by "above-average" intensity. Force generation is achieved via the hybrid model (recruitment and targeted mobilisation).

However, a critical nuance exists: in specific operational contexts, it is expedient to abandon rigid static categorisations in favour of a more dynamic system. Currently, certain sectors formally designated as combat zones present minimal risk to personnel (e.g., the southern Odesa region), whereas specific sectors nominally designated as the "rear" may pose a significantly higher threat environment than the statistical average of the forward line (e.g., the Pokrovsk and Dobropillia axes). For such contingencies, it is recommended to introduce a dynamic risk coefficient and a critical-skill shortage coefficient into the financial remuneration calculus.

3. **The "Rear Support" Category (logistics and sustainment forces).**

This encompasses personnel within rear-echelon units exposed to low or minimal risk levels. The force generation model remains hybrid, with a tour of duty extending until the termination of martial law. It is proposed to lower the conscription age specifically for this category to 19–20 years, coupled with a strict legislative prohibition against their deployment into combat operations (Categories 1 and 2) until they reach 25 years of age. This will facilitate the generation of a highly trained mobilisation reserve, ensuring that by age 25, these personnel will already possess a verified military occupational specialty (MOS) and practical service experience within the Armed Forces architecture.

4. **The "Non-Combat Contribution" Category (alternative national service).**

This is designated for individuals who, due to religious convictions, overriding family circumstances, or medical profiles, are disqualified from service in the preceding categories. This constitutes a framework of remunerated alternative service (benchmarked at minimum wage scales) situated within strategic state enterprises, in strict compliance with national labour legislation. Within the framework of reforming the Territorial Recruitment and Social Support Centres (TCCs), it is strongly recommended to implement a rigorous performance evaluation architecture (incorporating performance-based incentives) that metrics: the precision of personnel allocation (MOS alignment), the retention rate of the recruit within the force (6–12 months), the absolute absence of "medical discharge reversals," and strict adherence to legal and due process protocols. The operationalisation of this model necessitates the consolidation of substantial financial resources. Prospective funding options include:

- ***The Luxury War Tax.*** The imposition of double taxation upon the procurement of elite and status commodities (premium automotive vehicles, branded jewellery, luxury spirits, etc.), predicated on the strategic principle that "excess capital in the rear must underwrite operational risks at the front."
- ***The strategic unlocking of a designated tranche of foreign exchange (forex) reserves.*** Throughout the duration of the full-scale conflict, Ukraine's international reserves have nearly doubled — expanding from $28.5 billion to $57.3 billion, with projections indicating a potential baseline of $65 billion by year's end — despite the state's physical existence remaining critically imperilled. It is proposed to initiate a fundamental review of current macroeconomic policy to convert this financial buffer into tangible defence capabilities, utilising fiscal instruments strictly compliant with the monetary policy of the National Bank of Ukraine (NBU) and the structural conditionalities of the International Monetary Fund (IMF).
- ***The systematic engagement of allied partners*** to establish targeted, ring-fenced international funds specifically designated for the underwriting of combat remuneration matrices.
- ***The aggressive digitalisation of state administrative functions.*** This entails the comprehensive migration of bureaucratic processes into digital architectures, thereby facilitating the subsequent elimination of redundant government agencies and the systematic reduction of administrative personnel. This structural optimisation will directly reallocate budgetary expenditures — previously consumed by state apparatus maintenance — toward urgent warfighting requirements.

4.3. A new meritocratic model of military leadership

The contemporary paradigm of high-technology warfare increasingly replicates the management logic of complex technological projects: the operational environment attains extreme dynamism, decision-making cycles compress, and strategic overmatch is generated not so much through the massing of forces and effects, but rather through the velocity of learning, adaptation, and the implementation of change. Against the backdrop of the evolution of military technology — having transitioned from the era of mechanisation to the stage of mature informatisation, and now entering the phase of intellectualisation — this transit shifts the centre of gravity from physical mass to digital and cognitive systems on the battlefield. Consequently, due to this convergence, the military domain and the broader IT sector are beginning to evolve along a shared operational logic. Competitive advantage is secured by units and formations capable of continuous learning, rapid hypothesis testing, the scaling of successful solutions, and the ruthless discarding of ineffective practices without degrading overall command and control (C2).

The operational experience of the Defence Forces demonstrates: the most effective formations are those where C2 is organised as an agile, iterative process. This entails compressed cycles of rigorous planning and execution, strict discipline regarding After Action Reviews (AAR), rapid tactical recalibration to ground-truth realities, and an institutional culture where competence and decision-making capacity supersede formal rank and rigid regulations. Within such units, persistent experimentation occurs across the domains of training, interoperability, and equipping. Concurrently, the role of the commander transforms from a purely administrative function into an architectural one — the capacity to engineer a system that generates consistent operational outcomes under conditions of extreme uncertainty.

Simultaneously, these practices largely remain within the unformalised domain: they rely upon the personal authority of specific commanders, the delegated trust of senior leadership, and stark operational pragmatism, yet lack systemic doctrinal codification. This results in a critical heterogeneity across the Defence Forces: alongside pockets of high operational effectiveness exist units where managerial processes critically lag behind the tempo of battlespace evolution, and where regulations serve as an instrument to protect process stability rather than to ensure kinetic outcomes. Such "uneven combat readiness" across the system precludes the scaling of success — not due to a deficit of human capital, but owing to the absence of institutional mechanisms capable of converting qualitative exceptions into a reproducible force-wide standard. However, without propagating this new operational business logic across all echelons of force generation and the employment of Armed Forces capabilities as a whole, the absolute operational effectiveness demanded by the "Dao" of Russia's terminal defeat cannot be achieved.

Consequently, the strategic imperative is not the mechanical replication of the experience of individual brigades, but rather the distillation and formal codification of the universal managerial principles underpinning their effectiveness, followed by their rigorous implementation at the institutional level. Practices validated within high-performing formations (e.g., "Khartia", the 3rd Separate Assault Brigade [3 OSHBr], and units of the Unmanned Systems Forces [USF] grouping) must be conceptualised as a unified framework of military management. This encompasses standards for organising the decision-making cycle, principles of delegation within the senior commander's intent (Mission Command), rigorous AAR methodologies, and algorithms for the selection of commanders tailored to specific functional roles.

This, however, constitutes only a partial solution. The critical node of military leadership reform is the modernisation of military talent management, focusing on mechanisms compatible with the legal framework of the armed forces. It is expedient to retain the rank system as the legal scaffolding of the hierarchy, whilst radically overhauling the processes that determine actual operational effectiveness: the protocols for appointments, command authorisation (clearance), performance evaluation (appraisals), rotation, and relief of command. The formal criterion (rather than one forged de facto under the pressure of war) must shift from linear time-in-service (tenure) and rigid billet-to-rank correspondence, to current role fit: the authority to command must be predicated on verified qualifications and the proven capacity to deliver operational results within a specified context.

Practical implementation necessitates the introduction of a rigorous system of qualification clearances for command billets and regular performance reviews. Crucially, this evaluation must not be reduced to mechanistic metrics. Digital instruments should serve a decision-support function — aggregating calculable metrics regarding combat readiness, C2 quality, and the casualty-to-mission-success ratio — while the final personnel decision is adjudicated through formal appraisal boards that account for the specific context of the tactical area of responsibility (AOR) and assigned missions. Such a model minimises subjectivity and manipulation, rendering personnel decisions empirically verified.

As the central instrument of this personnel transformation, it is proposed to implement a formalised system of Command Qualification Levels — a mechanism for the rigorous verification of a service member's professional capacity to hold leadership billets at the respective echelon, irrespective of formal rank, current time-in-grade, or legacy career inertia.

This system does not supplant the institution of military ranks; rather, it establishes a parallel professional matrix that codifies role fit across the tactical, operational-tactical, operational-strategic, and strategic echelons. Within the structure of the Armed Forces of Ukraine, it is expedient to operationalise this via a multi-tiered Command Qualification (CQ) scale. The possession of the requisite

CQ within this model constitutes a mandatory prerequisite for command authorisation at the corresponding echelons, for example:

- CQ-1 – clearance for platoon/company command;

- CQ-2 – clearance for battalion command;

- CQ-3 – clearance for regiment/brigade command;

- CQ-4 – clearance for corps or other operational-level formation command (etc.).

Progression to each subsequent tier will mandate not merely the possession of the requisite rank and formal Professional Military Education (PME), but also verified C2 competence within high-intensity and highly complex operational environments.

> Consequently, the possession of a CQ constitutes a legally codified prerequisite for assignment to the corresponding command billet, and the absence or revocation of a CQ explicitly precludes access to the role without necessitating the disruption of rank as a statutory status: the rank is retained, but the authority to command at a specific echelon becomes the direct outcome of verified, real-time professional competency.

As primary mechanisms for the appraisal and verification of the CQ level, it is proposed to consider, first and foremost, the analysis of actual combat performance outcomes (After Action Reviews — AAR), comprehensive Command Post Exercises (CPX), and simulation modelling. This must be coupled with the formalised assessment (via standardised testing) of soft skills: psychological resilience, decision-making capacity under conditions of extreme uncertainty, risk management, and related competencies.

The revocation of a qualification clearance does not result in a demotion in military rank, but legally precludes the execution of command functions at the respective echelon until recertification is achieved. Such an approach establishes a legitimate mechanism for the rapid operational rotation of ineffective managers from critical billets, without disrupting the disciplinary vertical and the statutory foundation of the Armed Forces.

This licensing framework must be strictly synchronised with a system of regular personnel reviews and a talent management development programme for the operational reserve. This will facilitate the generation of a robust pool of qualified candidates to fill key billets without degrading the operational tempo of command and control.

As an additional component of this new architecture, it is proposed to ensure the tangible ability of service members to transfer between units during designated "transfer windows" (e.g., bi-annually). This mechanism can serve as a systemic instrument for managing command quality and organisational culture. A systemic attrition of personnel from a unit must be analysed as a primary indicator of leadership failures or a toxic command climate; conversely, a high demand for transfers into a unit signals C2 effectiveness and a healthy

operational environment. These "migration trends" must be analysed comprehensively alongside other metrics (combat effectiveness, casualty rates, training quality), serving as an independent, tamper-proof sensor of command quality.

To preserve combat resilience, strict operational failsafes are required: quotas on simultaneous transfer volumes, the prioritised manning of critical operational axes, and the rigorous filtering of unsubstantiated requests. Within this framework, controlled mobility functions as a systemic sanitisation mechanism: weak managerial practices are rapidly identified, while strong leadership becomes institutionally visible.

The strategic communications (STRATCOM) narrative for this reform must be anchored in the principles of equity and accountability. A command billet is not a lifelong privilege, but a functional duty demanding the continuous validation of competencies. True military honour lies not merely in the insignia of rank, but in the verified capacity — certified by a qualification credential — to effectively command a unit and successfully execute combat missions.

4.4. Comprehensive integration of artificial intelligence technologies

AI is increasingly emerging as the absolute "game-changer" and force multiplier in modern warfare. Given the parity of baseline conditions with the Russian Federation — specifically, both belligerents possessing massive combat data lakes and external technological sustainment (Western partners for Ukraine, China for the adversary) — victory will hinge upon the velocity and sophistication of institutional decisions regarding AI integration.

In this context, two parallel lines of effort must be developed:

- **Narrow AI** (Weak AI) for the execution of discrete combat functions, integrated directly into command and control (C2), logistics, ISR (Intelligence, Surveillance, and Reconnaissance), and precision-strike architectures.
- **Universal military AI** — a sovereign AI-enabled decision-support circuit for strategic planning, forecasting, and ensuring continuous adaptation at the strategic echelon. Because the velocity at which new operational challenges emerge exceeds the analytical capacity of the Defence Forces (and arguably, human cognitive limits generally), universal military AI must mitigate the deficit of highly qualified subject matter experts by generating optimal, real-time strategic solutions.

Considering the imperatives of contemporary warfare, it is proposed to immediately establish a **specialised, technological AI circuit** possessing deep technical knowledge in software engineering, microelectronics, and systems architecture. This will enable the force to transcend baseline tactical innovations, ensuring the persistent generation of highly advanced yet cost-effective battlefield solutions, alongside rapid countermeasures to the adversary's technical

know-how. The non-technical dimension — leveraging AI to identify optimal institutional responses to the macro-challenges of the war — will serve an ancillary role. The primary strategic objective is the radical acceleration of combat innovation R&D directly within Defence Forces units, compressing integration cycles to ensure instantaneous adaptation to adversary actions.

The full-scale implementation of simulation and modelling technologies constitutes a strategic-level imperative. Beyond driving aggregate operational efficiency, these technologies are critical to addressing the Defence Forces' primary vulnerability: the minimisation of casualties and the preservation of Armed Forces personnel, deliberately moving away from the tragic axiom that "combat regulations are written in blood." Simulated environments enable the rigorous verification of tactical decisions, exposing vulnerabilities and flawed operational patterns through thousands of virtual combat engagements.

Concurrently, to mitigate the risk of generating flawed strategies (stemming from the inaccurate modelling of baseline conditions), simulated environments must be positioned not as the source of "absolute truth," but as an instrument for the comparative analysis of operational courses of action (COAs). Thousands of virtual engagements serve merely as a filter to ruthlessly discard erroneous hypotheses; however, final operational decisions mandate strict validation against real-world combat data and must be subjected to rigorous "Red Teaming" protocols.

4.5. Elevating the innovative MilTech ecosystem to a new level

Modern warfare constitutes a high-technology confrontation wherein the sheer complexity of technology fundamentally alters the required skill architecture of military personnel towards advanced technical and cognitive proficiencies. In this context, innovation is no longer an optional undertaking, but a critical, mandatory prerequisite for victory.

To comprehend the depth of this challenge and accurately focus strategic efforts, it is vital to establish the fundamental ontological distinction between two concepts: technological innovation and technology *per se*.

Innovation is the genesis — the creation of a fundamentally novel approach to executing a specific function that demonstrates a verified, exponential increase in operational effectiveness. Technology, conversely, is the materialisation of that innovation within a product or process; it is a derivative product, the instrumental embodiment of the innovation. A single foundational innovation can spawn hundreds or thousands of secondary, derivative technological solutions.

It is precisely innovation — not merely technology — that serves as the ultimate wellspring of strategic overmatch, both within peacetime economies and in warfare, particularly during periods of phase transitions in military technology, such as the current epoch. Consequently, the strategic imperative of the state is to identify and aggressively stimulate those core growth nodes within society that generate this vital innovative impulse.

Crucially, the success of a robust innovation ecosystem is contingent upon far more than mere capital injection; it relies upon a comprehensive institutional architecture. In Ukraine, the problematic components of this architecture currently include:

- ***Institutional capacity and the rule of law.***

Following the paradigm of the most highly innovative nations (e.g., the US, Israel), it is strongly recommended to concentrate strategic efforts on the stringent protection of intellectual property (IP) rights and overarching property rights within the state. It is precisely the ironclad guarantee of exclusive rights and the absolute protection of R&D investments that generate the requisite economic incentives for innovators.

- ***Access to global capital.***

Profound, foundational innovations (Deep Tech) require massive capital expenditures that cannot be sustained solely by the state budget or domestic Ukrainian investors. Broad Western venture capital (VC) currently lacks the requisite institutional infrastructure to enter the Ukrainian startup ecosystem and remain embedded, capitalising on successful enterprises, because the domestic stock market remains structurally shallow and practically confined to the sovereign bond segment. Without the activation of fully-fledged, deep financial capital markets, the generation of "unicorns" (enterprises with valuations exceeding $1 billion) within the MilTech domain will remain structurally impossible.

- ***Human capital.***

Amidst a severe demographic crisis in both Ukraine and Europe, and against the backdrop of the explosive expansion of cognitive technologies, top-tier technical talent is becoming a precious, highly contested resource in an ongoing global competition. The strategic imperative is clear: to engineer domestic conditions that unequivocally halt the "brain drain" and trigger a systemic reversal of this outflow. This mandates the deployment of targeted educational grants, highly specialised immigration frameworks for STEM professionals, and — crucially — the aggressive deregulation of legislative constraints that currently prohibit Ukrainian academic researchers from participating in commercial ventures, thereby providing them with tangible, legally sound avenues to monetise their inventions.[9]

> While Ukrainian legislation does not formally prohibit academic researchers from patenting their innovations and securing intellectual property (IP) rights—which, in theory, can be licensed or transferred for commercial application — there remains a critical absence of viable, institutionalised mechanisms analogous to the US Bayh-Dole Act. Consequently, the effective commercialisation of state-funded

[9] An authoritative subject-matter expert possessing a comprehensive understanding of this specific problem set, alongside a strategic vision for its resolution, is Oleksandra Antoniuk, Head of the Scientific Committee of the National Council of Ukraine on Science and Technology Development.

scientific research, as a foundational component of a dynamic innovation economy, remains structurally unrealised.

- ***Digital infrastructure.***

In the current era of high-technology warfare, secure sovereign data centres (located on Ukrainian territory) and high-speed data transmission networks possess, and will increasingly command, strategic significance. These represent capital-intensive yet absolutely essential investments in both immediate victory and the post-war future. The rationale: according to recent estimates by McKinsey & Company, global demand for data centre capacity could triple by 2030, and sustaining the requisite pace of expansion will require up to $7 trillion. This implies that, replacing the familiar free market of cloud services (often featuring a substantial proportion of freemium access), the 2026–2030 period may witness a severe deficit in accessible server capacity. Failing to establish a sovereign digital foundation now will undermine not only Ukraine's overarching developmental potential but also its operational overmatch against the adversary in the domain of next-generation intelligent C2 (Command and Control) systems. However, to address this challenge, the realistic strategy is not simply constructing data centres within Ukraine (in hardened subterranean facilities), but rather adopting a multi-tiered approach. This entails storing encryption keys, mission-critical data, and foundational models exclusively on secure sovereign servers within Ukraine, while replication, redundancy, and scaling can be hosted on the infrastructure of our most trusted partners (with the Ukrainian side retaining absolute control over access keys). The use of commercial clouds should expediently continue for non-critical services and baseline computing.

- ***International cooperation.***

No single nation today, not even the US, is capable of independently securing technological overmatch across the entire spectrum of critical military technologies. Resolving complex scientific and technical challenges will require increasingly deep integration, primarily with partner nations. It is recommended to establish the NB8 (Nordic-Baltic Eight) countries and the United Kingdom as the primary vector of engagement; they remain our most consistent and reliable partners, and their industrial infrastructure is optimally adapted for the high-tech refinement and scaling of cost-effective, high-efficiency prototypes developed in Ukraine. While this line of effort is already being actively operationalised, it is recommended to focus on further institutionalising the transformation of the cooperation model — pivoting away from the prevalence of direct financial subsidies to Ukrainian manufacturers or the linear transfer of Western defence articles, toward the aggressive promotion of joint defence-industrial consortiums and capital investments on mutually beneficial terms (aimed at achieving the irreversibility of strategic integration).

4.6. Strategic security of component supply chains.

Supply Chain Security regarding the component base constitutes a **critical vulnerability**, the true magnitude of which remains largely obscured from public view — yet it possesses the profound potential to negate all efforts within the framework of the victory strategy. In a high-technology war of attrition, the stability of the component base dictates not merely the success of this strategy, but the very survival of the state in the conflict.

The "Black Swan" contingency for Ukraine is its technological dependence on **China.**

Currently, the PRC occupies the position of a dual supplier, engaging in commerce with both Ukraine and the aggressor state. However, a perilous asymmetry is already observable: Russian Federation is securing access to higher-tier technologies, whilst Ukraine teeters on the brink of a potential embargo. A sudden cessation of supply lines from China represents a catastrophic scenario capable of precipitating the collapse of several critical segments within the MilTech ecosystem, thereby effectively blockading Ukraine's industrial and R&D capacities. This contingency could materialise as early as 2027–2028.

Despite ongoing localisation efforts, as of early 2026, dependence on Chinese microelectronics and components within the unmanned aviation segment alone reaches 85%. Critical nodes that are practically impossible to substitute rapidly and/or completely include electronic speed controllers (ESCs), flight controllers, specific classifications of video cameras and optical sensors, engine components (neodymium magnets, miniature bearings, specialised wiring), carbon fibre, and specific polymers. The manufacturing of lithium batteries, despite successful instances of localising battery pack assembly, remains structurally bottlenecked by the importation of raw materials from the PRC. Under these conditions, it is imperative to comprehend the root of the problem: free-market mechanisms within this domain currently do not function strategically in favour of national military security. Domestic and Western (partner) equivalents are consistently outcompeted by Chinese alternatives in terms of price point, scalability, and baseline availability. To mitigate this profound strategic risk, the state must resort to market-counterintuitive measures, judiciously implementing elements of protectionism and the centralised state planning of procurement for the most critical components.

5. The diplomatic front: avoiding the trap of a pseudo-negotiation process

The execution of the victory strategy demands a sober assessment of the resource base and the broader foreign policy context.

On one hand, given the "drip-feed" nature of Western assistance, Ukraine will be compelled to radically reconceptualise its domestic economic policy, redirecting all internal reserves toward national defence through the ruthless optimisation of non-critical expenditures.

On the other hand, it must be acknowledged: under conditions where the Russian Federation demonstrates no genuine intent to terminate hostilities, the very existence of a US-mediated negotiation process constitutes an additional, latent impediment to operationalising the strategy of Russia's terminal defeat. The so-called "negotiation process," as executed by the Kremlin, functions as a highly effective hybrid weapon and a meticulously calculated, multi-domain strategic operation — yielding dividends for the aggressor regardless of the negotiations' actual outcome. Specifically:

- Conducting dialogue via intermediaries enables the Russian Federation to issue ultimatums while preserving plausible deniability and unilaterally modulating the escalation calculus.
- The simulated pursuit of peace effectively "lulls" Western partners, degrading their readiness to supply lethal aid, while simultaneously demoralising Ukrainian society and the Armed Forces, thereby subverting the national will to fight.
- Should the pressure on the aggressor's military machine escalate to a level critical to the regime's survival, the Russian Federation can, at any moment, rapidly consent to a peace agreement, thereby locking in the current *status quo*. Under such a scenario, there is a high probability that the US administration and other partners will coerce Ukraine into accepting these terms, effectively rescuing the aggressor from comprehensive defeat.

Concurrently, the hypothesis underlying the terminal defeat concept is predicated on a fundamental axiom: Russia has entered a phase wherein war (or the preparation thereof) constitutes the regime's sole mechanism for self-preservation. This dictates that any "truce" in Ukraine is inherently transitional. If the aggressor suffers a defeat here or is compelled to freeze the conflict, the vector of aggression will inevitably pivot. The most highly probable subsequent theatre of operations encompasses the Baltic states. This dynamic generates a strategic window of novel challenges and opportunities for Ukraine, requiring preemptive preparation.

Conclusion

After four years of war, the "steel porcupine" strategy has exhausted its utility. Resource asymmetry and the approaching technological parity with the Russian Federation render a purely defensive model unsustainable, while the functional paralysis of the adversary serves only as a temporary measure that fails to fundamentally eradicate their capacity to reconstitute aggression. Victory — if the term is to be utilized in its true doctrinal sense — is not about the perpetual retention of the frontline, nor a compromised ceasefire under terms that reward aggression; rather, it dictates the absolute liquidation of the source of the threat. Therefore, strategic success, irrespective of how marginal the probability may currently appear, is exclusively achievable through simultaneous execution across two domains: deterrence and liquidation, wherein neither segment can function autonomously.

Concurrently, when the disparity between strategic objectives (Ends) and available resources (Means) is excessively vast, the methods of their employment (Ways) must undergo radical reconceptualisation. This dictates that the Ukrainian state can no longer rely merely on the "awakening" of international partners or extensive sources of force generation, such as mass mobilisation: we must engineer the "Dao" of strategy — radically asymmetric and non-linear methods capable of transmuting systemic vulnerabilities into operational strengths.

In this context, the concept of "terminal defeat" is neither a fantastical utopia nor a call for infinite escalation; it is an imperative to seize the final window of opportunity to strategically resolve Ukraine's military security calculus, thereby circumventing a scenario where a temporary cessation of hostilities merely constitutes a chronologically deferred defeat. Admittedly, this demands maximum institutional agility, the political will to execute unorthodox decisions, and the aggressive scaling of capacities to engineer adaptive, high-technology architectures — both within the battlespace and the strategic rear. Such an approach is capable of fundamentally altering the paradigm of the conflict, as war is an open-ended process wherein linear models fail, and operational effectiveness is entirely predicated upon the velocity of adaptation and the audacity of decision-making.

Therefore, the ultimate conclusion is stark: either Ukraine adopts the doctrinal concept of the irreversible destruction of the source of the military threat — and undergoes the requisite institutional transformation — or it capitulates to an infinite war of attrition under progressively deteriorating baseline conditions. This is not a choice between war and peace, but rather, between securing a future and its absolute absence.