Turkey's Defence-Industrial Strategy and the Emerging Balance in the Eastern Mediterranean

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Abstract

This article examines Turkey's defence-industrial transformation from the aftermath of the 1974 Cyprus arms embargo to its current pursuit of strategic autonomy and power projection. It argues that Ankara's defence-industrial policy has evolved beyond procurement into a central instrument of national strategy, fusing industrial development, military capability, and foreign policy. Through sustained state direction, the creation of a dense industrial ecosystem, and an emphasis on indigenous platforms—particularly unmanned systems—Turkey has significantly reduced its dependence on foreign suppliers while expanding its geopolitical influence through defence exports.

The analysis explores how this industrial ascent reshapes NATO dynamics, highlighting the tension between alliance cohesion and Turkey's strategy of "sovereign interdependence." It assesses the operational and strategic implications for Greece, emphasizing that deterrence in the Eastern Mediterranean is increasingly shaped by innovation ecosystems, production capacity, and sustainment autonomy rather than platform numbers alone.

Special attention is given to the TF KAAN national combat aircraft programme as a test case of Turkey's ambitions and limitations. While symbolizing Ankara's determination to escape external technological constraints, the programme reveals persistent vulnerabilities in propulsion, systems integration, and timelines that underscore the gap between industrial aspiration and operational maturity.

The article concludes that Turkey's defence-industrial rise constitutes both a challenge and a lesson for Greece and NATO. It calls for a Greek strategic response grounded in selective industrial sovereignty, technological innovation, and deep integration within European and Allied frameworks, arguing that future stability and deterrence in the Eastern Mediterranean will depend as much on industrial resilience as on military inventories.

Part I — Turkey's Defence-Industrial Awakening and Its Strategic Foundations

For nearly half a century, Turkey has pursued an enduring strategic ambition: to free itself from the constraints of foreign dependence in armaments and to transform industrial self-sufficiency into a lever of national power. What began as a reaction to the United States arms embargo following the 1974 Cyprus intervention has evolved into a comprehensive state policy that fuses industrial development, military capability, and geopolitical aspiration. Today, Turkey stands as a case study in how a middle power can translate industrial policy into strategic influence.

The lessons of 1974 were etched deeply into the Turkish strategic psyche. When the flow of U.S. spare parts and ammunition was suddenly halted, Ankara faced the paralyzing reality that even a large standing army was impotent without sovereign control over its logistical base. Out of that humiliation emerged a long-term consensus: Turkey must never again allow its operational readiness to be hostage to external political leverage. The state responded by establishing the Undersecretariat for Defence Industries (SSM) and the Armed Forces Foundation (TSKGV), structures designed to anchor a national armaments sector insulated from foreign whims.

Throughout the 1980s and 1990s, progress was uneven. Turkey remained largely dependent on licensed production, particularly of U.S. and European systems, with limited technological absorption. Yet the institutional groundwork had been laid: ASELSAN for electronics, ROKETSAN for missiles, HAVELSAN for software, and TUSAŞ for aerospace. Each would become a pillar in the architecture of autonomy that followed.

The decisive acceleration came in the early 2000s. The Justice and Development Party (AKP), upon assuming power, embraced defence industrialization not merely as a procurement policy but as an instrument of national sovereignty. In 2004, the Turkish government redefined its acquisition doctrine: domestic development was to be the default; licensed production, the exception. What had once been a bureaucratic objective became an ideological mission intertwined with national pride and foreign policy.

The results are measurable. In 2000, only about one-fifth of Turkey's military needs were met domestically. Two decades later, the figure approaches three-quarters. More than two thousand small and medium-sized enterprises now orbit the major state-anchored conglomerates, forming a dense industrial ecosystem. The defence budget—roughly twenty billion euros annually—feeds this constellation of firms, while export revenue increasingly sustains it. Ankara has thus managed to tie economic vitality, technological innovation, and strategic autonomy into a single policy continuum.

This transformation was not driven solely by economics. It reflected a broader shift in Ankara's perception of security: that independence in armaments underpins independence in foreign policy. Each embargo, sanction, or delay from Western suppliers only reinforced that conviction. The experience of being excluded from the F-35 programme and the acquisition of the Russian S-400 system in 2019 merely deepened Turkey's resolve to chart its own technological path—even at the price of friction within NATO.

In this respect, Turkey has pursued what might be called a "sovereign interdependence" strategy. It remains within NATO's institutional framework and benefits from Alliance interoperability and intelligence flows, yet simultaneously cultivates the ability to act unilaterally when national interests dictate. The domestic defence industry becomes the enabler of this duality: it allows Ankara to maintain its obligations to the Alliance while preserving the freedom to defy it when expedient.

The emblematic expression of this policy is the drone revolution. The Bayraktar TB2 and Akıncı unmanned aerial vehicles, produced by Baykar Makina, have become synonymous with Turkish ingenuity. Their success on battlefields—from Libya and Syria to Nagorno-Karabakh and Ukraine—has done more to advertise Turkish technological competence than any diplomatic campaign. These systems offer performance at a fraction of Western cost and have proven resilient in harsh operational environments. They are not merely tactical assets; they are strategic instruments of influence. Each sale—to Poland, Qatar, or African partners—extends Turkey's diplomatic reach and embeds Ankara in new security relationships.

For Greece and for NATO's southern flank, this development must be read with clarity, not alarmism. Turkey's emergence as a defence-industrial power alters the regional equation. It introduces an element of unpredictability, for a state that controls its own supply chain can mobilize faster, sustain operations longer, and absorb sanctions more effectively. Yet it also imposes new responsibilities upon Turkey: sustaining quality control, maintaining export credibility, and financing an increasingly complex industrial base amid economic volatility.

From a Hellenic perspective, the key insight is that strategic autonomy cannot be decreed; it must be built patiently through coherent industrial policy, research investment, and sustained political will. The Turkish case illustrates both the potential and the perils of such an endeavour. The same logic that drives Ankara toward independence can and should motivate Athens to pursue selective self-reliance in critical technologies—particularly in naval systems, electronic warfare, and unmanned platforms—within a European cooperative framework.

Part II — The Defence Industry as a Vector of Power and the Challenge to NATO Cohesion

If the early twenty-first century marked Turkey's industrial awakening, the following two decades have witnessed the conversion of that industrial base into an instrument of power projection. Ankara now employs its defence industry not simply to equip its forces, but to extend its diplomatic and strategic reach well beyond its borders. In this sense, Turkish armaments policy has matured into a fully integrated component of national grand strategy.

The guiding principle is straightforward: to wield technology as a force multiplier of influence. By producing and exporting reliable, combat-proven systems, Turkey is constructing networks of dependency in which client states become, willingly or otherwise, participants in Ankara's security orbit. Drones, armored vehicles, and precision-guided munitions have become the new vocabulary of Turkish diplomacy. In sub-Saharan Africa, the Middle East, and Central Asia, the presence of Bayraktar systems is now often the visible emblem of a Turkish strategic relationship. This is power translated through industry.

The drone sector epitomizes this synthesis. Baykar's TB2 and Akıncı platforms, together with TAI's Anka series, have transformed modern warfare's cost calculus. They provide mid-range strike and surveillance capabilities once available only to major powers, and they do so at prices affordable to emerging states. Their battlefield record—demonstrated from Idlib to the Donbas—has turned Turkish engineers into unexpected ambassadors of Ankara's political message: that sovereignty and technological competence are inseparable. Each successful export contract is thus a dual achievement: an economic gain and a diplomatic foothold.

Parallel developments have occurred in naval and land systems. The MILGEM corvette programme and the forthcoming TF-2000 air-defence destroyer demonstrate Turkey's ambition to command not merely littoral waters but the maritime approaches of the Eastern Mediterranean. On land, the Altay main battle tank and the armored-vehicle families produced by Otokar and BMC illustrate a similar effort to replace imported platforms with indigenous alternatives. None of these systems yet matches

the sophistication of their Western counterparts, but their very existence signals that Turkey has entered the small club of states capable of designing, producing, and exporting major weapon systems across all domains.

From a structural standpoint, Ankara's model remains distinct from the laissez-faire pattern often seen in Western Europe. It is a state-anchored ecosystem: the government directs funding, defines priorities, and ensures that industrial capacity aligns with national objectives. Public-private boundaries are blurred; key companies are held by defence foundations or sovereign funds; and technological spill-overs are channeled into civil sectors such as aerospace and electronics. The result is an industrial policy that fuses economics with national security—a model that, despite its imperfections, delivers strategic coherence.

For NATO, this transformation presents both benefits and strains. On the positive side, Turkey's growing production capacity contributes to the Alliance's overall resilience. Indigenous manufacturing within a front-line member enhances collective readiness and reduces exposure to external supply shocks. Turkish drones, for example, have already filled capability gaps in several allied forces that could not procure equivalent systems from the United States or the European Union in time. Moreover, Turkey's operational experience in hybrid and asymmetric environments—gained in Syria and Iraq—feeds valuable lessons into NATO doctrines.

Yet there is an inherent tension between national autonomy and alliance solidarity. Turkey's pursuit of "sovereign interdependence" sometimes manifests as unilateralism, generating friction with partners. The purchase of the S-400 air-defence system from Russia remains the most visible symptom of this ambiguity. It was less an act of defiance than a declaration of emancipation: a signal that Ankara will not allow alliance politics to dictate its security choices. Nevertheless, such gestures erode trust, complicate interoperability, and invite counter-balancing responses.

This dynamic must be understood in its geopolitical logic. Turkey perceives itself as encircled by uncertainty: an unstable Syria to the south, a volatile Caucasus to the northeast, and a contested Eastern Mediterranean to the west. In this environment, reliance on distant allies appears to Turkish planners as a vulnerability. Indigenous armament capability is their antidote. The paradox is that the stronger Turkey becomes industrially, the more confident it feels to act independently—thus testing the cohesion of the very alliance that enabled its initial modernization.

For Greece and for NATO's southeastern flank, this reality demands sober analysis rather than rhetoric. Turkey's evolving capabilities—particularly in unmanned systems, precision munitions, and naval shipbuilding—alter the regional balance incrementally but persistently. They do not yet confer decisive superiority, yet they

shorten the mobilization cycle and widen the spectrum of credible coercive options available to Ankara. A state that controls its production line can replenish losses rapidly and sustain operations under embargo; a state that imports most of its critical systems cannot.

The strategic implications for Greece are twofold. First, Athens must recognize that deterrence in the Aegean and the Eastern Mediterranean is no longer measured solely by the number of aircraft or ships, but by the agility of innovation ecosystems. The contest has shifted from inventories to industries. Second, Greece should internalize the lesson that alliances, while indispensable, are not substitutes for self-reliance. Turkey's autonomy allows it to navigate crises of alliance cohesion with minimal operational disruption; Greece must aspire to similar resilience within its own means and partnerships.

At the same time, Turkey's industrial ascent contains its own vulnerabilities. Rapid expansion has produced financial pressures, dependence on imported subsystems, and occasional quality shortfalls. The dream of 100 percent localization remains aspirational. Engine technology, advanced sensors, and high-end propulsion systems still rely on foreign suppliers, many of whom operate under Western export-control regimes. Moreover, economic instability and currency fluctuations threaten the sustainability of massive R&D expenditures. Ankara's model, though impressive, walks a fine line between ambition and affordability.

For NATO strategists, the task is to integrate Turkey's growing capabilities without undermining Alliance coherence. This requires acknowledging Ankara's legitimate desire for autonomy while maintaining transparent coordination mechanisms. The Alliance's strength has always rested on complementarity: diversity of capability under a unified strategic vision. A Turkey that feels respected as an autonomous contributor will remain a constructive member; a Turkey that feels constrained may drift toward transactional behavior. The balance must be managed with finesse.

Ultimately, Turkey's defence-industrial rise compels both admiration and prudence. It demonstrates how a middle power, by aligning state policy, industrial planning, and military doctrine, can enhance its strategic stature. But it also reminds us that technological sovereignty, once achieved, reshapes alliances as profoundly as it reshapes arsenals.

Part III — Lessons for Greece and the Future of Industrial Geopolitics in the Eastern Mediterranean

The evolution of Turkey's defence-industrial policy carries profound lessons for Greece. First and foremost, it underscores the strategic value of indigenous capacity. Armies and navies can be modern, well-equipped, and numerous, but their effectiveness is fundamentally constrained by the ability to sustain and replenish systems under operational pressure. Turkey's experience demonstrates that control over production, research, and development is inseparable from operational autonomy. Greece, by contrast, continues to rely heavily on imports for critical platforms—aircraft, naval systems, and munitions—often constrained by licensing, delivery schedules, and foreign policy considerations of supplier nations.

To address this, Athens must pursue a coherent long-term industrial strategy. This strategy need not replicate Turkey's state-anchored model in its entirety, but it must focus on sectors where Greece can achieve meaningful autonomy: naval platforms, unmanned aerial systems, electronic warfare suites, and precision munitions. Strategic partnerships within the European Defence Fund and NATO industrial programs can accelerate this process. Selective collaboration with allies, combined with domestic research and development, can enable Greece to preserve its operational independence while benefiting from shared technological advances.

A second lesson is the centrality of innovation to deterrence. Turkey's rise is not merely a story of production, but of creative adaptation. The integration of unmanned systems, networked sensors, and domestic software demonstrates that ingenuity can compensate, in part, for gaps in conventional strength. For Greece, the imperative is clear: technological adaptation must complement force structure. Investments in unmanned platforms, surveillance systems, and cyber capabilities are force multipliers that enhance both deterrence and operational flexibility. The era in which numerical superiority alone guaranteed strategic advantage is past; agility and innovation now define military effectiveness.

Third, Turkey's industrial trajectory highlights the interdependence between defence policy and foreign policy. Every drone exported, every corvette built, every missile system deployed abroad is simultaneously a military asset and a diplomatic instrument. Ankara has leveraged its industrial output to cultivate political influence across Africa, the Middle East, and Eastern Europe, creating networks of strategic dependence. Greece must understand that industrial and technological strength is not simply a tool for national defence, but a currency in regional geopolitics. Maintaining technological credibility and industrial resilience allows Athens to participate in shaping regional security rather than merely reacting to it.

At the NATO level, Turkey's development presents both opportunities and challenges. Its growing capability can strengthen Alliance readiness by contributing additional assets and experience. Yet, the same capabilities create potential friction when national priorities diverge from Alliance objectives. Greece, as a frontline member of NATO's southeastern flank, must engage in both constructive dialogue and rigorous capability planning, ensuring that its own industrial and operational posture can offset asymmetric advantages should disagreements arise. The dual lesson is that alliances remain critical, but they cannot substitute for national strategic foresight.

A sober assessment also requires acknowledging the limitations of Turkey's model. While impressive, it is neither immune to economic pressure nor to technological bottlenecks. Critical subsystems—advanced engines, high-performance sensors, certain electronic components—remain dependent on foreign suppliers. Economic volatility, currency fluctuations, and the high cost of R&D impose constraints on sustainability. For Greece, this reinforces the principle that resilience requires not only ambition but also careful calibration of resources, risk assessment, and prioritization of capabilities that yield the greatest strategic return.

Looking forward, the Eastern Mediterranean and Aegean regions are entering an era of "industrial geopolitics," where technological competence and production capacity are as influential as fleets, battalions, or air wings. Greece and Turkey alike are actors in this new paradigm. The ability to project influence, deter aggression, and maintain operational readiness increasingly depends on the underlying industrial and technological base. For Athens, the strategic imperative is clear: invest in innovation, nurture domestic industrial capacity, and integrate this effort within the framework of European and NATO partnerships to secure both autonomy and allied support.

In conclusion, Turkey's defence-industrial ascent is both a challenge and a lesson. It demonstrates how sustained political will, industrial strategy, and operational vision can combine to produce a small power capable of regional influence. For Greece, the path forward is to internalize these lessons: cultivate indigenous capacity, foster innovation, and align industrial development with long-term strategic goals. Only through such foresight can Athens ensure that it retains the capacity to defend national interests, deter coercion, and contribute constructively to regional stability.

Part IV — TF KAAN and the Limits of Strategic Autonomy

The maiden flight of the TF KAAN on 21 February 2024—followed by a second sortie in May—marks more than a technical milestone. It is a political and strategic statement. In Ankara's narrative, the aircraft embodies the culmination of two decades of defence-industrial transformation: a national combat aircraft designed, assembled,

and ultimately sustained without external veto. In this sense, *Milli Muharip Uçak* is not merely a designation; it is a declaration of intent.

Viewed in isolation, the KAAN is an ambitious platform. Viewed in context, it is the logical continuation of Turkey's post-2019 trajectory, shaped decisively by its exclusion from the F-35 programme. That decision did not simply deprive Turkey of a fifth-generation aircraft; it removed Ankara from a tightly controlled technological ecosystem. The response was predictable: if access is denied, sovereignty must be engineered.

From a design perspective, KAAN reflects a pragmatic synthesis rather than revolutionary innovation. Its frontal aspect recalls the F-22's angular geometry, while its internal weapon bays, sensor placement, and cockpit philosophy echo established fifth-generation concepts. This is not imitation but adaptation—evidence of an industry that understands contemporary design logic even if it has yet to master all its enabling technologies.

The aircraft's aerodynamic configuration suggests a conscious effort to balance stealth, manoeuvrability, and growth potential. The large ventral surface, the raised pilot position, and the cockpit architecture—possibly adaptable to a tandem configuration—indicate foresight rather than improvisation. Yet these choices also reveal trade-offs: increased radar cross-section in exchange for visibility and flexibility, and the absence (for now) of thrust vectoring or advanced control surfaces.

The true strategic challenge, however, lies not in the airframe but beneath it.

The Engine Question: Sovereignty Deferred

No modern combat aircraft is more sovereign than its propulsion system allows. For now, KAAN flies with General Electric F110 engines—the same power plant that equips Turkey's F-16 fleet. This is a rational interim solution, but it is also a strategic vulnerability. As long as propulsion depends on foreign intellectual property, autonomy remains conditional.

Ankara understands this. Competing consortia—one involving TUSAŞ Engine Industries and Ukrainian partner Ivchenko Progress, the other linking Kale Group with Rolls-Royce—underscore both ambition and uncertainty. The unresolved issue of intellectual property rights, which previously stalled negotiations with the British partner, is not technical but political. True autonomy is expensive, slow, and resistant to compromise.

Should the national engine programme fail—or fall behind schedule—Turkey may be forced to prolong its reliance on the F110. In that scenario, the KAAN would be

operationally indigenous but strategically constrained. This distinction matters greatly for export credibility and long-term deterrence planning.

Systems Integration: The Real Fifth-Generation Test

If propulsion is the programme's Achilles' heel, systems integration is its proving ground. Turkey's ambition to achieve sensor fusion comparable to that of the F-35 is bold—and revealing. It demonstrates an understanding that modern air combat is no longer platform-centric but data-centric.

The Murad 600A AESA radar developed by ASELSAN is a notable achievement and may, in time, enhance the Turkish F-16 fleet. Integrated electro-optical systems, IR missile warning, electronic warfare suites, and satellite-independent navigation reflect a coherent design philosophy. Yet ambition should not be mistaken for maturity.

Fifth-generation capability is not the sum of sensors but the *integration logic* that binds them. Data fusion, human-machine interface, and decision-support algorithms are among the most complex challenges in modern defence engineering. They require not only advanced software but operational doctrine, test data, and time—resources that cannot be accelerated indefinitely.

The KAAN programme remains in its infancy in this respect. As of April 2025, flight testing amounted to less than half an hour. Prototype delays caused by titanium shortages and manufacturing challenges are not unusual—but they are consequential. Timelines matter, particularly when legacy fleets approach obsolescence.

Exports, Partnerships, and Strategic Signalling

The KAAN's viability ultimately hinges on exports and industrial partnerships. Turkey understands that no national combat aircraft programme is sustainable on domestic orders alone. The interest expressed by Ukraine, Saudi Arabia, Pakistan, the Gulf states, and Southeast Asian countries is therefore strategically significant.

Ukraine's interest is especially telling. Kyiv's experience—dependent on third-party approvals, training pipelines, and spare parts—has reinforced the appeal of *ITAR-free* solutions. In this respect, KAAN represents not just an aircraft but an alternative model of security cooperation.

Saudi Arabia's potential involvement, reportedly up to 100 aircraft, could alter the programme's financial and political calculus. Yet declarations of intent are not contracts, and enthusiasm does not resolve technical risk. Partners will demand certainty—on engines, systems, timelines, and long-term support.

Implications for Greece and NATO

For Greece, the KAAN programme should neither be exaggerated nor dismissed. It is not yet a peer competitor to mature fifth-generation platforms, nor is it a mere demonstrator. It occupies an intermediate space: strategically ambitious, technologically uneven, and geopolitically consequential.

The lesson for Athens is not to mirror Ankara's approach, but to understand its logic. Industrial autonomy, even partial, enhances strategic resilience. Greece's advantage lies not in unilateralism but in *selective sovereignty*: mastering critical subsystems, participating deeply in European defence ecosystems, and ensuring technological relevance across air, naval, and unmanned domains.

For NATO, KAAN underscores a broader trend: alliance members increasingly seek national freedom of manoeuvre within collective structures. This does not herald the end of alliances, but it does demand adaptation. Cohesion will depend less on uniformity and more on interoperability among diverse industrial paths.

Conclusion: Ambition Tested by Time

The KAAN programme encapsulates Turkey's defence-industrial moment: confident, capable, but constrained by physics, economics, and time. Ankara has demonstrated remarkable coordination between state and industry, and an ability to move from concept to prototype with speed. Yet the distance between prototype and operational system remains vast.

The horizon of 2030 is approaching rapidly. Interest in the Eurofighter Typhoon is therefore not a contradiction but a hedge—a recognition that autonomy is a journey, not an event.

For Greece and its allies, the appropriate response is strategic sobriety. Turkey's aerospace ambitions reflect a shifting balance in which industrial capacity increasingly shapes military power. Understanding this reality—and responding with foresight rather than reaction—will define deterrence and stability in the Eastern Mediterranean for decades to come.

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