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South Korean Defence Industry in the CEE Region

Over the past two decades, the Republic of South Korea (ROK) has undergone a dramatic transformation in defence-industrial design and production. Like most major initiatives historically taken on by the country, it is also a transformation that has taken place in record time. For the purposes of discussion, consider contrasting the timelines of how the ROK defence industry has progressed and developed major weapons platforms compared to that of India.

By any objective criteria, India should have been leaps and bounds ahead of their Korean counterparts. With assistance from the then-Soviet Union, the Hindustan Aeronautics Ltd (HAL) facility at Nasik, India, had been license-manufacturing Mikoyan MiG-21 fighter aircraft since 1964. A decade or more later, the same facility was producing the next-generation MiG-27.

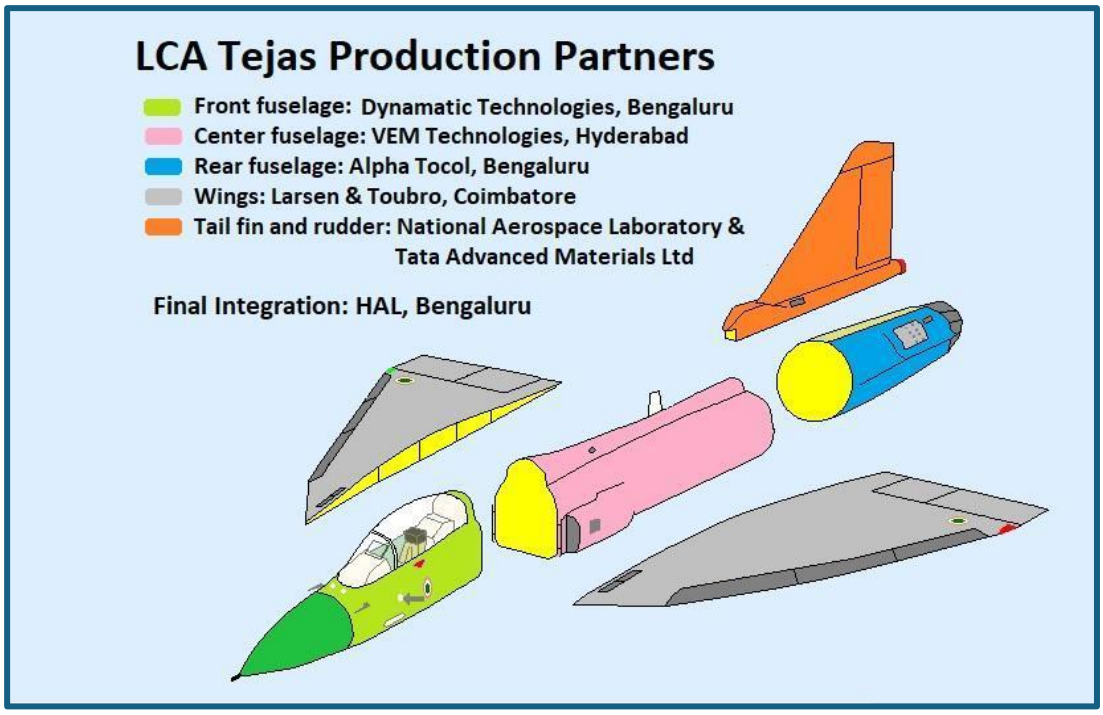
The Soviet aviation industry official who was responsible for establishing that MiG-27 production line was none other than a young Aleksei Fedorov. He later went on to be the General Director of the Irkut Aviation Production Association (IAPO). In the second half of the 1990s, he worked closely with HAL to modify the design of the Sukhoi Su-30 aircraft that was produced at IAPO at the time. In the process, he created the aircraft that has become the backbone and workhorse of the Indian Air Force (IAF), the Su-30MKI.

But more than a decade earlier, in the early 1980s, HAL and the rest of India's state-run defence industry were already working on a new aircraft. This aircraft was intended to replace the MiG-21 in IAF service and to serve as something to complement the Su-30MKI. Officially originally designated as the Light Combat Aircraft (LCA) Programme, this small fighter was later given the moniker "Tejas."

On 1 July 2016, which was thirty-three years after the programme officially began, the HAL Tejas Light Combat Aircraft (LCA) officially entered service with the Indian Air Force (IAF) when the first 20 aircraft in Initial Operational Clearance (IOC) configuration were inducted into No. 45 Squadron, the "Flying Daggers." The follow-on Final Operational Clearance (FOC) aircraft then joined the fleet, with the second squadron, No. 18, forming in May 2020.

The Tejas FOC was achieved only in early 2019, which then permitted more advanced, combat-ready versions of the aircraft to be delivered to the IAF. The second squadron, No. 18, then named the "Flying Bullets," was made operational on 27 May 2020 at Sulur Air Force Station in Tamil Nadu State. This air station falls under IAF Southern Air Command but is not a high-priority strategic assignment for an air force unit, given that it is closest to Sri Lanka and not to any of India's other major adversaries. But it is the second-largest IAF base, housing No. 5 Base Repair Depot, No. 43 Wing, and the Garud Commando Force.

The latest phase of the Tejas is the Mk 1A upgrade. A contract for 83 advanced variants of the Mk 1A jets has been signed, with deliveries expected to commence in early 2024 to further strengthen the fleet. Therefore, the developmental cycle for the aircraft has been more than forty years in duration. In the meantime, rather than bringing in foreign partners as the ROK has with its major programs, India's HAL has largely depended on partner component companies within the country, attempting to keep as much of the programme within India and making it a national effort.



Source: Wikimedia Commons

The only foreign partners to become involved have been brought into the effort when India's own indigenous programs have failed. The US firm General Electric ended up supplying the aircraft's F404 engine when the Indian-developed Kaveri engine could not produce the performance and reliability required of a lightweight, high-performance fighter. Israel ended up supplying the aircraft's radar, and the ejection seat comes from Martin-Baker in the UK. These firms were not on board in the programme's initial phases. Now that they are part of the program, it only serves to telegraph the message that many Indian-developed weapon systems are simply not in the same league as their contemporaries – most particularly those systems that are designed and produced in the ROK.

Compare the Tejas saga with the development of the Korean Aerospace Industries (KAI) FA-50 combat aircraft. This aircraft's history began with the development of the T-50 trainer version of the aircraft in the 1990s. This then led to the full-scale development of the FA-50 combat-capable derivative in 1997. Prototypes were built in 2006, certification occurred in 2012, and this was followed by ROKAF orders in 2011 and first deliveries in 2013.

That is an overall front-to-back cycle that is more than twenty years less than the Indian Tejas programme. Despite having spent almost twice the number of years on

development, and despite more than six decades of benefiting from the transfer of Soviet/Russian defence technology, the Indian aircraft is, by most standards, less capable than the South Korean FA-50. More importantly from an industrial base standpoint, the Indians have garnered no foreign sales for the Tejas, and there are no real prospects for any. Meanwhile, KAI has six export customers, with prospects for more.

In the meantime, KAI has a follow-on programme already in production in the form of the KF-21 Boromae. That aircraft, which has adopted what has been called "semi-stealth technology," has been developed on an aggressive and compressed design-to-test-to-production schedule. Series manufacturing of the aircraft began in 2024, but as of January 2026, it had already completed its flight test programme.

Source: Republic of Korea Air Force

As testimony to KAI's capabilities, the European weapon suppliers for the KF-21 at MBDA and other international partners were already commenting at the 2023 LIMA expo on Langkawi Island in Malaysia on the effort being expended on the KF-21. Their overall assessment was that they had not seen a fighter programme advancing as rapidly as this one to date. Nor had they seen a company that was determined to streamline the testing and weapons acceptance trials into a timetable that was well inside that of any of the other airframes they had worked with in the past.

Production Levels and Flexibility

That dedication to developing products—not just aircraft, but also armoured vehicles, artillery, and air-launched weapons—has been a major factor in the evolution of the ROK defence industry. The observation of existing and potential customers is that the ROK is producing weapons that embody Western levels of technological capability and sophistication, but are developed on shorter timetables while remaining highly competitive.

Additionally, attention should be paid to the fact that the ROK has been able to attract customers not only from neighbouring Asian countries, but also from Western and Middle Eastern nations. One of the most prevalent examples is the Hanwha K9 series of self-propelled howitzers. Despite Hanwha being a relative newcomer to that business when the company first began designing and building this class of weapon system, by 2022 the K9 series had already achieved a 52 per cent share of the global self-propelled howitzer market, including wheeled vehicles in addition to tracked chassis designs.

In the very beginning of February, it was announced that Hanwha's Chunmoo rocket artillery system was chosen for Norway's long-range precision fires program. This followed a highly competitive tender in which the ROK conglomerate beat out world-leading producers of this category of weapon. Winning the $2 billion contract to supply a long-range rocket artillery platform was no small feat as Hanwha had to present a superior offer to that of Lockheed Martin and European suppliers.

This sale is another step in a trend that has been developing for several years and is now accelerating—and shows every sign of continuing to do so. That trend is the ROK's expansion into new sectors of the European defence market. Thirty-odd years ago, there would have been little to no concern among US and European defence corporations that ROK companies would become competitors or a growing presence in world markets. But they are now, without a doubt, a major force in Europe, as they have been for some time. [1]

[1] Sookyung Seo, "South Korea's Hanwha bets big on Europe with Polish missile venture," The Korean Economic Daily, 3 September 2025.

US and European firms have attempted to explain away some of the sales that ROK firms have made in Europe in recent years. Reactions to the contract to sell 48 KAI FA-50 aircraft to Poland, as well as the off-the-shelf purchase of Hyundai Rotem K2 main battle tanks, are two clear examples. These Korean acquisitions were described as understandable at the time, according to some of the firms that had also been in the market. The ROK was selected on the grounds that Poland needed certain platforms that could be delivered on a very short timescale and that "there were no other options available." Why do you think, they ask, that the initial batch deliveries for both of these weapon systems are referred to as "gap fillers"?

But the reality is much less simple than these interpretations would indicate. The Hanwha sale in Norway is one of the very few instances in which a ROK firm has stolen a march on Lockheed Martin. Beating the US defence giant in its effort to sell its signature product, HIMARS, is not because the US system is regarded as inferior to the Hanwha product. Moreover, HIMARS is a NATO-standard system that has proven itself many times over in theatre and is also being licence-produced by European partners, as well as being adapted to accept new munitions for its firing units.[2]

This win by Hanwha over HIMARS is a clear signal that the priorities of European nations are shifting toward a very different model from that which prevailed in the post–Cold War era. European nations now require options that provide "faster delivery, longer range, and cost efficiency" as Russia's war in Ukraine drags on. In fact, it can be argued that the closer these nations are to Russia today, and the greater their need to modernise their militaries due to ageing fleets of equipment, the more attractive procurement from an ROK firm becomes.[3]

If an overall generalisation can be made, European nations have been asleep at the switch – as has the US, to a certain extent. They have been too slow to recognise the need to expand production of their weapon systems and increase the production tempo of major platforms. In June 2025, at the Shangri-La Dialogue Asia-Pacific Security Forum in Singapore, European leaders speaking about the threat from Russia finally admitted, "We

[2] Martin Chomsky, "750 HIMARS launchers delivered: Lockheed Martin expands production for U.S. and allies," Defence Industry Europe, 7 November 2025.
[3] Jin-Won Kim, "Hanwha Aerospace beats Lockheed to win $2 billion Norway artillery deal," The Korean Economic Daily, 30 January 2026.

in Europe have been hitting the 'snooze button' too many times over the past decade or more when it comes to the threat from Russia. It is time to get up and do something about it."

But the signs that Europe was doing too little, too late have been visible for some time. More than a decade ago, the French-made Dassault Aviation Rafale fighter jet programme was in the midst of what could reasonably be described as an existential crisis. Orders for the aircraft were so few that the production rate had fallen to 1.3 aircraft per month.

I spoke at the time with a colleague based in Singapore who worked with one of the "Team Rafale" French partner enterprises—the defence firms supplying engines, weapons, radars, electronic warfare systems, and other components. I asked him what determined this low rate of production, and he explained that there were so few orders for the Rafale that the production line had to be dialled back to the lowest level possible. The 1.3 aircraft-per-month production rate, he said, "was the minimum level or tempo on the assembly line that could be maintained without the programme itself collapsing."

Obviously, this production cycle was not the real minimum because within a year that rate had dropped even lower, to 1.1 per month with a gap – meaning no production at all – in August. The aircraft would soon not even have enough orders to keep the line open without requiring the company to spend massive sums building "white tails." This is an industry term for fighters that are produced without any paying customers for them when they roll off the production line. Then they sit idle waiting for buyers, which is a very expensive and profit-reducing way to do business.

If we then fast forward to the present day, the situation is now dire for any nation seeking to acquire new tactical aircraft or armoured vehicles or rocket-artillery, etc., from a US or European supplier. The firms that produce these and other weapons spent the Cold War years at low levels of production and quite often would even shut manufacturing lines down because it cost too much to keep them open. Surge capacity at many of these firms is all but non-existent as the European firms struggle to restore it.

Consider the story of how HIMARS stayed in production – but just barely.

In the war with Ukraine, the same HIMARS system that lost to Hanwha in the Norwegian competition has had a huge impact on the battlefield. The ability of the system to "shoot

and scoot" is what allows it to survive in a battlefield environment where drones overhead can spot enemy artillery in a matter of minutes or simply destroy an artillery emplacement—if the air vehicle is a suicide drone instead of a surveillance drone.

But it is only through a rather wild stroke of luck and the narrowest of margins that LM's facility in Little Rock, Arkansas, was even actively building HIMARS in early 2022 when the Russian invasion came. Soon the Ukrainians—as well as their neighbouring NATO member nations—were clamouring to acquire them. But it almost did not even happen.

By 2013, LM had suspended production of HIMARS altogether. Only an export order from the United Arab Emirates (UAE) for 12 launchers in 2017 prompted the company to open the current facility and re-start the production line. HIMARS production has not stopped since, and demand continues to rise. This is the main reason the factory was able to meet the demands of the war when called to do so.

Without the UAE order, the story in Ukraine would have been much different. Small wonder that an Atlantic article discussing how this single order from a Middle Eastern country kept the HIMARS line open and ready to build new units for when war came to Eastern Europe makes the understatement of the century: "there is growing bipartisan consensus that the US must reinvest in its manufacturing capacity."[4]

Partner to Provider

Two factors are creating increasing headaches for the defence planners in the Central and Eastern European (CEE) region nations. One is that Russia is becoming an increasingly belligerent, expansionist, and potentially unstable nation. In the future, it may become impossible for any of these nations to interact with Russia in a normal, non-confrontational manner. They are faced with the need to re-arm themselves and buttress their defenses, whether they are keen to do so or not. Moscow's actions leave them little choice but to be prepared.

The other is that the western nations they would normally turn to for procuring the weapon systems they need have order books that are full. They have very little capacity to supply any modern weapons in significant numbers in the short term. Delivery lead times

[4] Elliot Ackerman, "The Arsenal of Democracy is Reopening for Business," *The Atlantic*, 9 March 2023.

for both LM's F-35 and F-16V are roughly seven years from contract signing to first deliveries.

The same is true for the famous US Patriot air and missile defence (AMD) system. Demand is so much greater than supply can fulfil that the US has been forced to delay deliveries to other nations that have placed orders in order to reprioritise deliveries to Ukraine, telling paying customers that they have to wait.

In July 2025, the US Department of Defense informed the Swiss Federal Department of Defence that, due to the US needing to strengthen its support to Ukraine, the five Patriot batteries ordered by Bern in 2022 would see their deliveries delayed. The Swiss were supposed to begin receiving these batteries in 2026, with the final shipments scheduled for 2028.

A new timeline for the Swiss deliveries is now officially still "unclear," but due to the demands of the Ukraine war, a realistic estimate is sometime in the 2030s. Even that date depends on just how much longer the hostilities continue and whether Russia's military continues its high rate of ballistic missile production.

Source: Volodymyr Zelenskyy, X (formerly Twitter)

But it is this chasm between the increasing demand from the nations in the CEE region for new weapon systems they must acquire for their own defence and the limitations of how much (or how little, as the case may be) US and European military enterprises can provide to them that is the culprit. The disparity between the two—the eternal struggle of supply being overwhelmed by demand—is not likely to disappear any time soon. This is one of the reasons that ROK defence firms are now not only in the CEE market to stay, but their presence is only likely to expand between now and into the next decade.

At the same LIMA 2023 expo in Malaysia, where European defence firms had discussed just how streamlined and aggressive ROK defence enterprises are in the development and production of their weapons, there were others commenting on South Korea's place in the international defence marketplace. A representative from the chief People's Republic of China (PRC) tactical missiles and air defense systems conglomerate, China Precision Machinery Import-Export Corporation (CPMIEC), had a rather dour perspective on the subject.

He and some of the other Chinese attendees were complaining about the lack of any serious non-US or non-European exhibitors at the event, saying that, other than the Turks, there were not any other third-country enterprises participating. He was then asked, "But what about the South Koreans? They are represented here in substantial numbers, and they have also successfully sold their FA-50 combat aircraft to the armed forces here in Malaysia."

His response was dismissive and showed how little regard the Chinese have for South Korea's defence industrial achievements. "Korean weapons, American weapons—what's the difference," he replied.

His comment is typical of the cynical observer's view of the appeal of South Korean weaponry for the former Warsaw Pact nations. The Poles and other nations in the region are fans of the "Made in ROK" label, they say, because those weapons look, operate like, and have similar design requirements as US-designed systems. In addition, those South Korean designs also include subsystems that are US-made—like the F404 engines in the FA-50 and the F414 engines in the KF-21.

But the reason that the ROK defence industry is a natural supplier for the nations of Europe—especially in the CEE region—has a good deal to do with the evolution of the ROK defence industrial base. Put simply, South Korea four decades ago was a country that purchased US and other western weapons. By the end of the 1980s, these ROK firms were aiming to licence-produce American designs in-country, which then came to pass in the 1990s. This made South Korea one of the most special and reliable security partners—along with Japan—in Asia.

But today, in the 2020–2024 period, the ROK has been supplying approximately 6.5 per cent of European NATO imports, putting it on par with France and ahead of Germany. South Korea is therefore more than just a security partner. The country has now become a global security provider. It is no longer just a consumer of western-grade weaponry; it is a producer of it. Poland, which is the ROK's best customer in the region, now accounts for 46 per cent of Seoul's defence exports worldwide.

This role now played by the ROK places it at the crossroads between the security challenges in the Indo-Pacific region and in the Euro-Atlantic. The division between what happens in Europe and the developments in the Indo-Pacific, which some say never existed to begin with, has today disappeared. Moscow's aggression against Ukraine is only able to continue because of materiel, personnel, and other assistance that Russia receives from the PRC and North Korea.

A second-order effect from this arrangement is that the defence technology Russia is providing to North Korea in exchange for the assistance it receives now makes the North an even more existential threat to South Korea. Simply put, what happens in Europe has ripple effects all across the Indo-Pacific. Seoul is in the middle in more than one aspect.

As a recent occasional paper from the Atlantic Council points out, "One positive outcome of this new security reality has been to underscore for South Koreans and Europeans what they have in common: They share many core values, including democracy, respect for human rights, free and fair trade, and the rule of law. They also share an interest in preserving sovereignty, territorial integrity, and the right of nations to determine their own foreign and security policies."[5]

"These shared values and interests form a strong foundation for security cooperation," the essay continues. "But to build on this foundation, Seoul and its European partners should focus on three areas in particular: increasing intelligence sharing, building on existing programs for cooperation, and expanding defense industrial collaboration."

But despite the increasingly overlapping interests of South Korea's defence firms and the European nations that continue to purchase them, there is less certainty in the long-term future of ROK defence cooperation with EU member states.

[5] David F. Helvey, "South Korea and Europe are stepping up on security cooperation. Here's why.", Atlantic Council, 18 December 2025.

One obvious reason is that while today these Korean enterprises are filling a gap between the demands of the CEE region and what the US and EU can do to address them, this does not mean it will always be the case. The European firms that have been in this business since the dawn of the previous century—Germany, France, Sweden, the United Kingdom, and others—will be seeking to reclaim the European market share they have lost to the ROK once their programmes to expand their own production capacity have been completed.[6]

The quantity of South Korean defence equipment to be operated in Europe is going to increase in the coming years. But with that increase in its presence will be a commensurate increase in political debate as to whether the ROK is politically reliable enough to support Europe in matters of foreign policy. South Korea has not always supported EU and NATO policy towards Russia, which is one of the more prevalent areas in which Seoul parts company with Brussels. Among other concerns is that the ROK has not wanted to become involved in providing defence equipment or supporting Ukraine in its war against Russia, and the impact of that position on joint cooperation.

Another issue is that the desire of any country purchasing significant quantities of defence equipment will, sooner or later, insist that the nation doing the selling provide local industry in the purchasing nation with industrial participation packages. As South Korea begins to make more sales into Europe, the governments are going to increasingly demand that their own defence firms benefit from significant defence-related investments.

Provided South Korea can achieve the proper balance between increasing market share and meeting the demands for local investment, their recent years of success in brisk defence sales could continue. But there is a limit to the number of aeroplanes, tanks, artillery pieces, etc., that can both be produced and sold within a finite period. As the calendar moves on, there will have to be a shift away from large weapon platforms. The new areas for the most opportunities for new sales will be the provision of products and services. ROK enterprises will continue to cooperate with their European counterparts, with both sides seeing tangible benefits, but with the sales now more in technological products rather than what is referred to colloquially as “heavy metal.”

[6] “Filling the Gap: Non-NATO suppliers to Europe”, in IISS, Progress and Shortfalls in Europe’s Defence, 2025, pp.76-77,

Recommendations and Conclusions

1. South Korea has shown the capacity to deliver modern and affordable weapon systems that are interoperable with their US and EU analogues. Furthermore, the country's industry has also shown that it can deliver these items at speed and scale. The most productive course of action, therefore, would be for ROK firms to put those capacities to work in market segments where Europe will still present a long-term and increasing requirement.
2. Production of munitions and other materiel that would replenish NATO stockpiles is one such area. Alliance members have been saying for more than two years that they can continue to support Ukraine in its war against Russia, but that "the bottom of the barrel is visible." ROK firms have shown they can produce NATO-standard munitions in required quantities, while also proving capable of surging production rates. While this would not have Seoul directly supporting Ukraine, providing new sources of munitions still aids the overall war effort.
3. One of the promising ROK programmes is one that would be a major boost to the efforts of European NATO nations to expand capabilities in long-range air-launched weapons. This is the Korea Air-Launched Cruise Missile (KALCM), currently being tested on the KF-21. The range of the weapon is almost identical to the MBDA Storm Shadow.
4. Air and Missile Defence (AMD) systems have been key to Ukraine fighting the Russian Aerospace Forces (VKS) to a standstill and blunting much of the Russian nightly bombardments of Ukraine's cities. The ability of the ROK to design and build modern air defence systems—combined with the country's expertise in missile defence learned from its proximity to North Korea—would be another area for collaboration with Europe.
5. South Korea is currently engaged in the accelerated development of a multi-layered, AI-enabled anti-drone defence system. The ROK has been developing this set of systems, also referred to as "drone-kill chains," which were initially designed to defend against North Korean airborne threats. The various technologies that the ROK has been discussing include new-age laser weapons that supposedly cost $1.50 per shot, drone-hunting systems, infrared-seeking drone counters, and

interceptor systems.

Source: DAPA (Defense Acquisition Program Administration)

6. South Korea also remains fertile ground for the establishment of supply chains related to its expertise in advanced microchip and semiconductor manufacturing and materials engineering. The European nations possess expertise in high-end propulsion, composites, and specialised chemical engineering and production. By combining their relative strengths and each building on the other, they can reduce dependence by either Europe or the ROK on single suppliers, as well as the vulnerabilities posed by transatlantic supply lines.
7. Several ROK firms are also exploring the application of numerous existing defence technologies and repurposing them for use against drones. One of the more promising proposed adaptations of a current-day system is the use of AESA radar technology to detect, track, and target small drones that otherwise are difficult, if not impossible, to detect. A new "hard kill" project in the ROK proposes using AI combined with radar systems that detect medium-sized suicide drones and then deploy interceptor drones to neutralise them.
8. Given the shape of current hostilities in Europe, Asia, and the Middle East, a growing and strengthening alliance between the ROK and its EU partners will become a critical component in stabilising the global security situation. That partnership depends not just on political and military cooperation but also on the sharing of intelligence information and technical insights into adversary weapon systems, as well as the closest possible relations in the industrial sphere. That

defence industrial aspect is the key to all others. There cannot be an alliance that is effective to the degree necessary without industrial collaboration supporting all the other activities required. South Korea has also shown remarkable innovation and adaptability in weapons design. Europe should embrace that strength and learn from it.

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