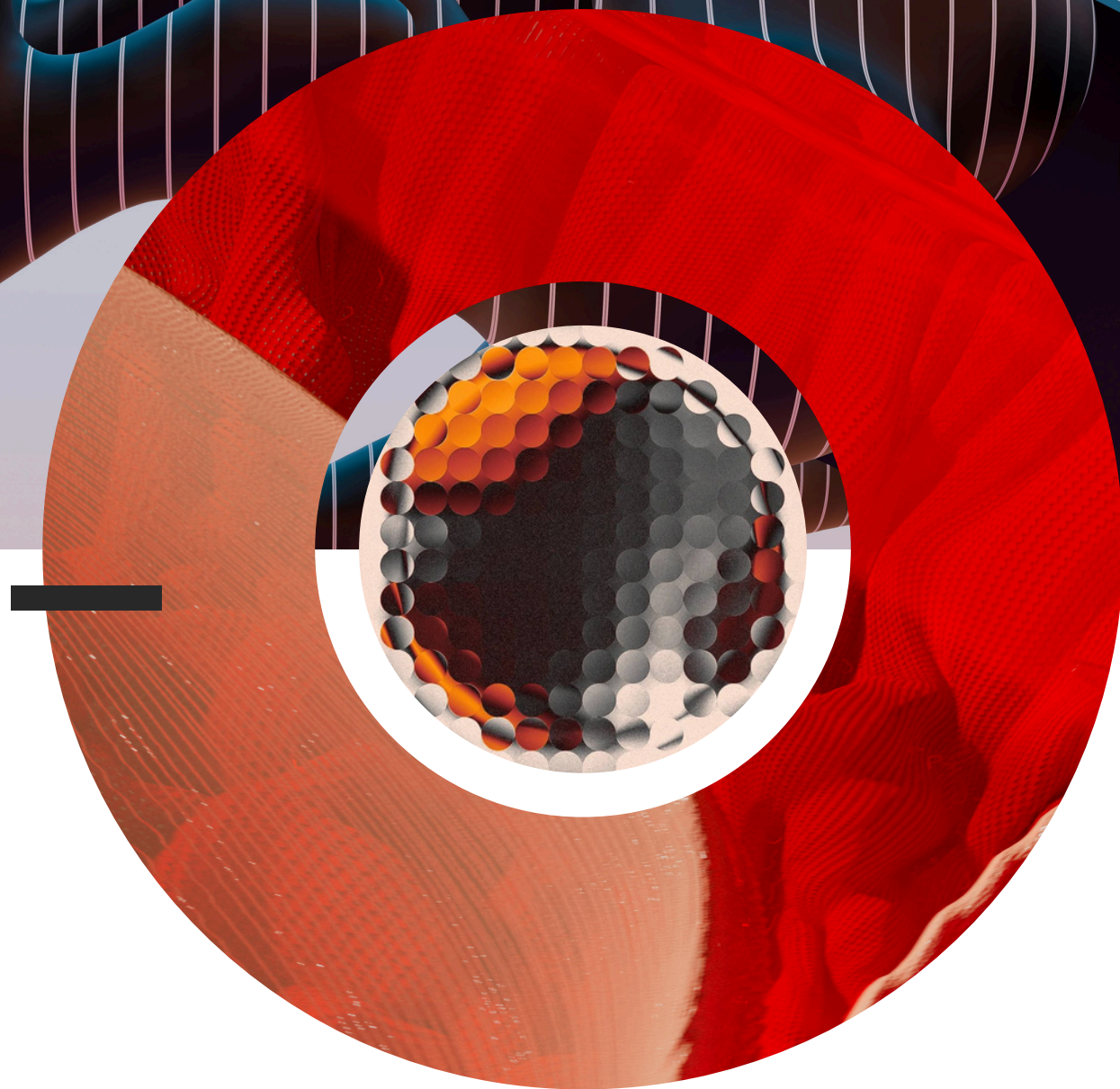




ENGINEERING
COMPANY



Defence & Dual-Use Technology Review

The Review of Defence and Dual-Use Technologies of Ukraine's Defence-Industrial Complex has been prepared by LLC Engineering-Company (hereinafter referred to as "EC") and is intended for a wide range of professional users, including government authorities, diplomatic missions, international organizations, investment funds, defence companies, research centers, as well as representatives of the security and defence sector.


The materials have been prepared exclusively on the basis of open-source information. **The Defence & Dual-Use Technology Review** (hereinafter referred to as the "**DDUTR**") does not contain restricted information, state secrets, or any other category of non-public information. The materials were prepared in compliance with the legislation of Ukraine concerning the protection of information and state secrets.

The value of the product is driven by the use of a unique analytical toolkit. The collection, analysis, and preliminary processing of data were automated using a software platform for media environment monitoring incorporating OSINT and GEOINT tools.

Information partners and representatives of the expert community also contributed to the preparation of the DDUTR.





CyberBoroshno is a Ukrainian team of analysts and developers that creates software solutions in the fields of OSINT, GEOINT, and Threat Intelligence to support analytical processes in the security and defence sector. The team uses its own proprietary developments, including the toolkit of the  **Ochi AI** system.



«**InformNapalm**» is an international volunteer intelligence community founded in 2014 following the start of Russia's aggression against Ukraine. Its primary area of activity is OSINT, including the analysis of social media, photo and video materials, satellite imagery, open databases, and other publicly available sources used to document Russian military activity, war crimes, and hybrid operations.



The Survival and Special Training Center SEAL is an international security organization of Ukrainian origin, founded in 1998. The organization specializes in professional training and the provision of services in the fields of corporate, governmental, and personal security. The international activities of the **The Survival and Special Training Center SEAL** extend beyond cooperation with partner countries and also cover the Middle East, Africa, Asia, and Latin America.

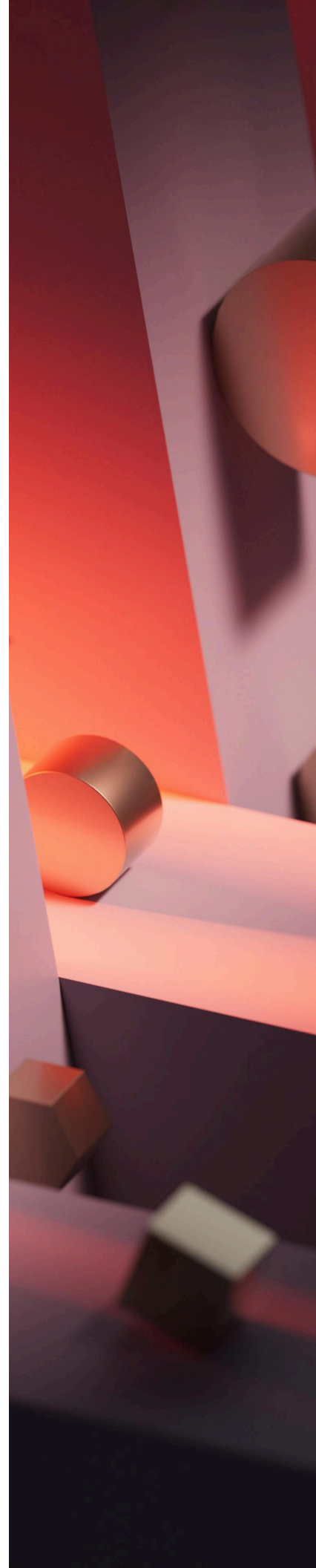
EC (LLC "Engineering-Company") reserves the right to update the methodology for preparing materials, the list of sources, and analytical approaches in accordance with changes in the security, technological, and international environment.

List of Abbreviations

AI	Artificial Intelligence
ATV	All-terrain vehicles
AMPS	Airborne missile protection system
BRDO	Better Regulation Delivery Office
CORPUS	Coalition for Sustainable Procurement and Collaborative Support
DDUTR	The Defence & Dual-Use Technology Review
DJI systems	Chinese company DJI (Da-Jiang Innovations)
EDIP	European Defence Industrial Programme
EDPCI	European defense projects of common interest
ESC	Electronic speed controller
FAST	Defense Supply Chain Transformation Acceleration Fund
EC	LLC "Engineering-Company"
EW	The electronic warfare
FPV	First Person View
GEOINT	Geospatial intelligence
GPS	Global Position System – satellite navigation system
LTE	Long Term Evolution – mobile communication standard

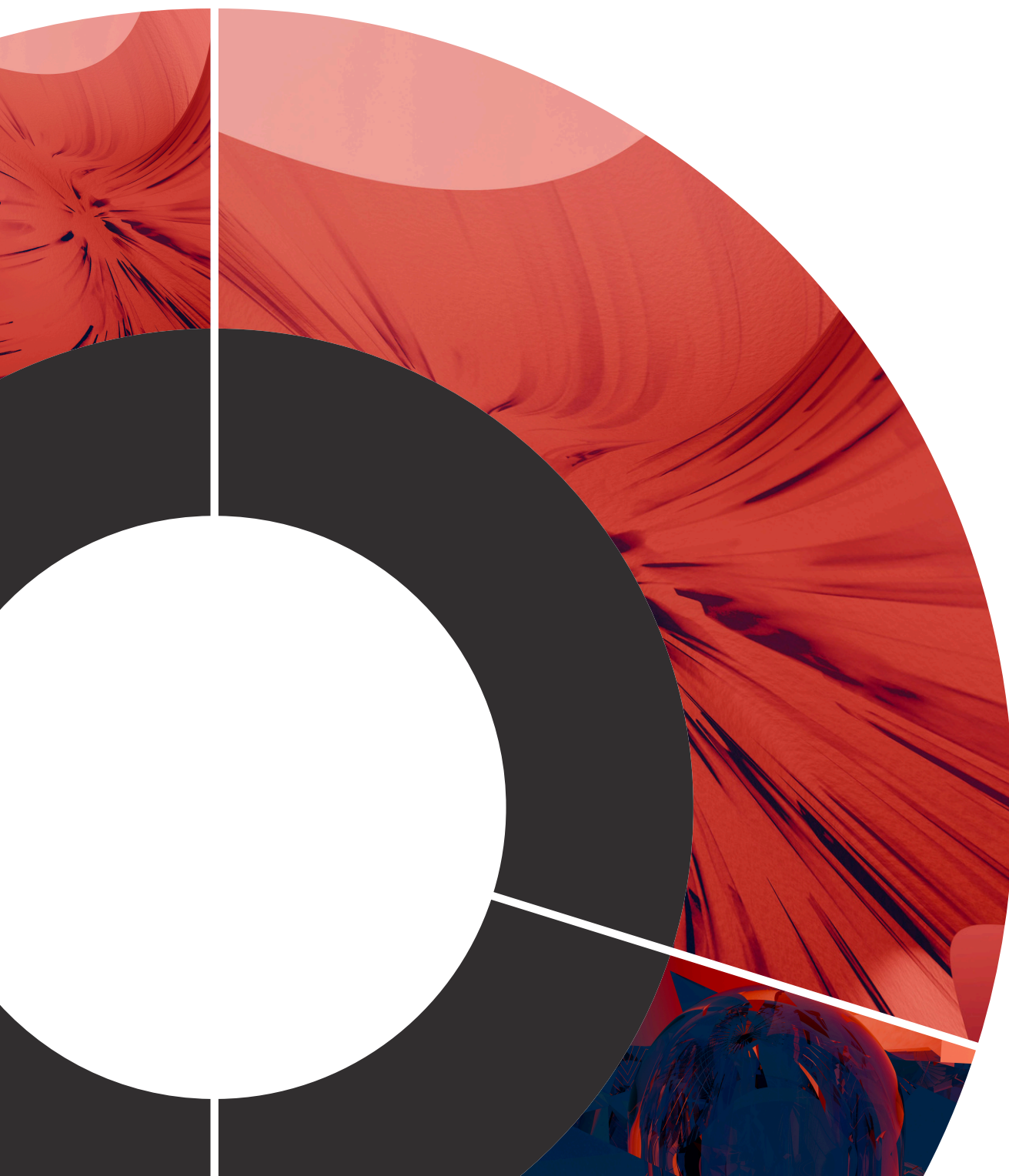
List of Abbreviations

NAUDI	National Association of Ukraine Defense Industry
NUR	National Development Institution
OSINT	Open Source Intelligence
SIPRI	Stockholm International Peace Research Institute
TRL	Technological readiness level
UASAT LEO	Low earth orbit satellite program
URIF	American-Ukrainian Reconstruction Investment Fund
USI	Ukraine support instrument
VTX	Video signal transmitter
Wi-Fi	Wireless network





SECTION 1





SECTION 1

[2026/05]

Measures Undertaken by the State and Ukraine's Defence Industry to Meet the Needs of Ukraine's Defence Sector (DSU), April 2026.

The primary focus of the Ministry of Defense of Ukraine was strengthening the country's air defense (AD) system.

Since the beginning of 2026, the **Armed Forces of Ukraine (AFU)** have received more than twice as many interceptor drones as in 2025. These interceptor drones are being delivered to units through several mechanisms: direct procurement under **DOT Defense Acquisition** contracts; **the Army of Drones. Bonus** program; and the **DOT-Chain Defence** weapons marketplace. In March alone, interceptor drones achieved a record by shooting down more than **33,000 enemy UAVs** of various types.

Currently, two key tasks have been assigned to drone manufacturers:

- to develop and scale **jet-powered interceptor drone technologies** capable of countering jet-propelled **Shahed-type** drones;
- to develop **alternative guidance systems** for effective operation under difficult weather conditions..

At the same time, the Ministry of Defense updated the **procurement mechanism for fiberoptic drones** to ensure uninterrupted UAV supplies to the front amid fluctuations in the prices of key components. During 2025, **374,000 fiber-optic drones** were delivered under DOT contracts, and as of April 2026, the military had already received **over 92%** of last year's total volume. However, recent contracting has become more difficult due to global market conditions: prices for fiber-optic materials have surged and fluctuated by **2 to 6 times**. Consequently, the Ministry introduced a **price adjustment mechanism** to align contract values with changes in the cost of key components.

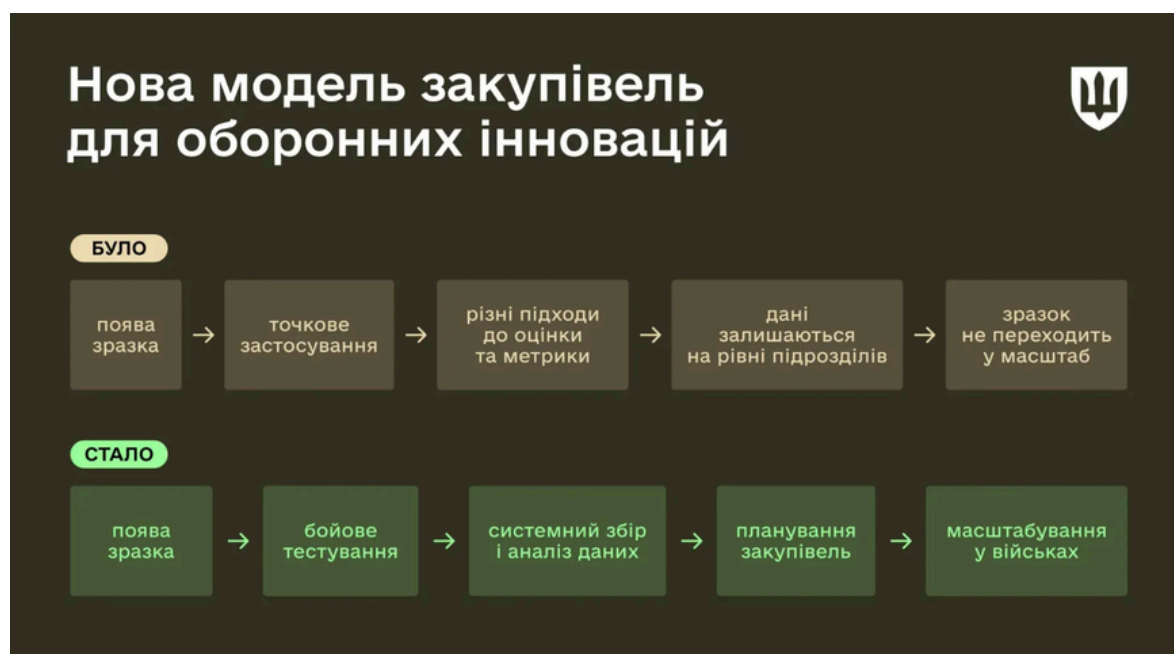


SECTION 1

[2026/05]

In the context of **air defense development**, the **Cabinet of Ministers** simplified the process for **modernizing Ukrainian aircraft** to counter Russian strike drones. It is now permitted to install **weapons, communication, navigation, and target detection systems** without lengthy approval procedures. The entire process will be shortened to **one month**. Both **enterprises and military units** will now be able to participate in upgrading Ukraine's aircraft.

The Cabinet of Ministers of Ukraine has introduced a **pilot project** that allows for the rapid procurement, testing, and implementation of innovative solutions for defense needs. Previously, there was no procedure allowing the **Ministry of Defense of Ukraine** to procure innovations for testing by the military.



For reference: The key changes introduced by the Government Resolution include:

- * **The Ministry of Defense** is authorized to rapidly procure innovative products under a simplified procedure;
- * Units of the Armed Forces of Ukraine receive innovations for battlefield testing and make decisions regarding their effectiveness;
- * Combat-proven solutions are further considered for inclusion in procurement requirements and supply planning.

SECTION 1

[2026/05]

Implementation of measures for the institutionalization of defense innovation development.

The Ministry of Defense has announced the establishment of the “A1” Defense AI Center with the **support of the Government of the United Kingdom**. Its primary areas of activity include: transforming battlefield data into actionable insights, autonomous systems, accelerating innovation in the defense-industrial sector, and reducing bureaucracy within the armed forces.

The Government of Ukraine approved the intellectual property management policy in **Ukraine’s defense-industrial complex (DIC)**. The document establishes approaches to the protection of rights to defense technologies and their effective use in production for the needs of the Defense Forces.

Issues related to the provision and support of the Defense Forces of Ukraine

The Head of the Office of the President, **Kyrylo Budanov**, presented a more pessimistic assessment regarding the activities of **Ukraine’s defense-industrial complex**. He stated that Ukraine’s drone manufacturing sector effectively lacks its own technological base. According to him, the country acts more as a user than a developer in this field, since key components, including electronic components equipment such as 3D printers, are of foreign origin.

In a broader context, he questioned Ukraine’s status as an industrial state. In particular, K. Budanov noted that despite the country’s reputation as a tank-building nation, not a single new tank has been produced since the start of the full-scale war. He also confirmed that work on missile programs is ongoing, but faces serious limitations. The main problem is dependence on imported components, some of which, according to him, are not supplied even by allied countries. At the same time, production competencies lost over recent decades, including guidance systems technologies, have not yet been restored.

Issues related
to the provision
and support

01

SECTION 1

[2026/05]

Tech Innovation

“

Politico also raised the issue of supplying the Armed Forces of Ukraine with UGVs (unmanned ground vehicles). The AFU aims to replace 30% of frontline personnel with UGVs. Over the past three months, Ukrainian UGVs have carried out more than 22,000 missions. In March alone, Ukrainian forces conducted more than 9,000 missions using UGVs.

In the first half of 2026, 25,000 such robots are expected to be contracted — twice as many as during the entire previous year. To date, the Defense Procurement Agency (DPA) and the State Rear Operator (DOT) have already signed 19 contracts with manufacturers worth a total of UAH 11 billion. More than 200 manufacturers of ground robots are currently operating in Ukraine. Last year, around 15,000 systems were delivered to the troops, and more than 40 new models have been approved for use since the beginning of 2025 alone.

Despite this breakthrough, several challenges remain: vulnerability to enemy drones and difficult terrain that complicates deployment. Most importantly, there is still a shortage of funding and slow state procurement procedures. Nevertheless, the government is trying to accelerate contracting and increase financing, while also integrating Ukrainian companies into the European defense market.

01

Key Points

Productivity

[2026/05]

14 billion

UGVs and EW
ordered drones
through the Brave1
Market

2026

More than 181,000 units
of equipment have
already been delivered
to the battlefield

35 300+

eliminated or
severely wounded
occupiers

OBT

The Ministry of Defense released information on the status of **military equipment procurement through the ePoints system in 2026**. In 2026, military units ordered drones, UGVs (unmanned ground vehicles), and EW systems through the Brave1 Market platform using **ePoints worth UAH 14 billion**. More than 181,000 units of equipment have already been delivered to the battlefield. Around 95% of drone units have already joined the program. In March a record was set — more than 35,300 eliminated or severely wounded occupiers and over 151,200 enemy targets hit.

PORTAL

Ukraine has launched the WEAPONS.Investments web portal, designed to help defense manufacturers and developers secure funding for scaling production. The platform allows users to submit a short application form. After that, the Ministry of Defense team reviews the request and determines its priority level. If the project is considered promising, the team will help connect it with investors through a partner network. **Priority areas include electronic warfare (EW), robotics, artificial intelligence, communications, cybersecurity, and autonomous platforms.**

The Defense Procurement Agency (DOT) of the Ministry of Defense has received the status of a Centralized Procurement Organization. The corresponding resolution was adopted by the **Cabinet of Ministers of Ukraine. This decision grants the Agency authority to administer the Prozorro Market electronic catalog for defense customers.** At the initial stage, the catalog will include four categories: new pickup trucks, motorcycles, ATVs (all-terrain vehicles), and buggies.

SECTION 1

[2026/05]

“ Innovation Technologies

Ukraine, together with partner countries, has established **CORPUS (Coalition for Resilient Procurement and Unified Support)** — a multinational coalition in the field of defense procurement and sustainment. Its members include the Defense Procurement Agency (DOT) of the Ministry of Defense of Ukraine and procurement agencies from partner countries — Finland, Italy, Norway, Sweden, and the United Kingdom.

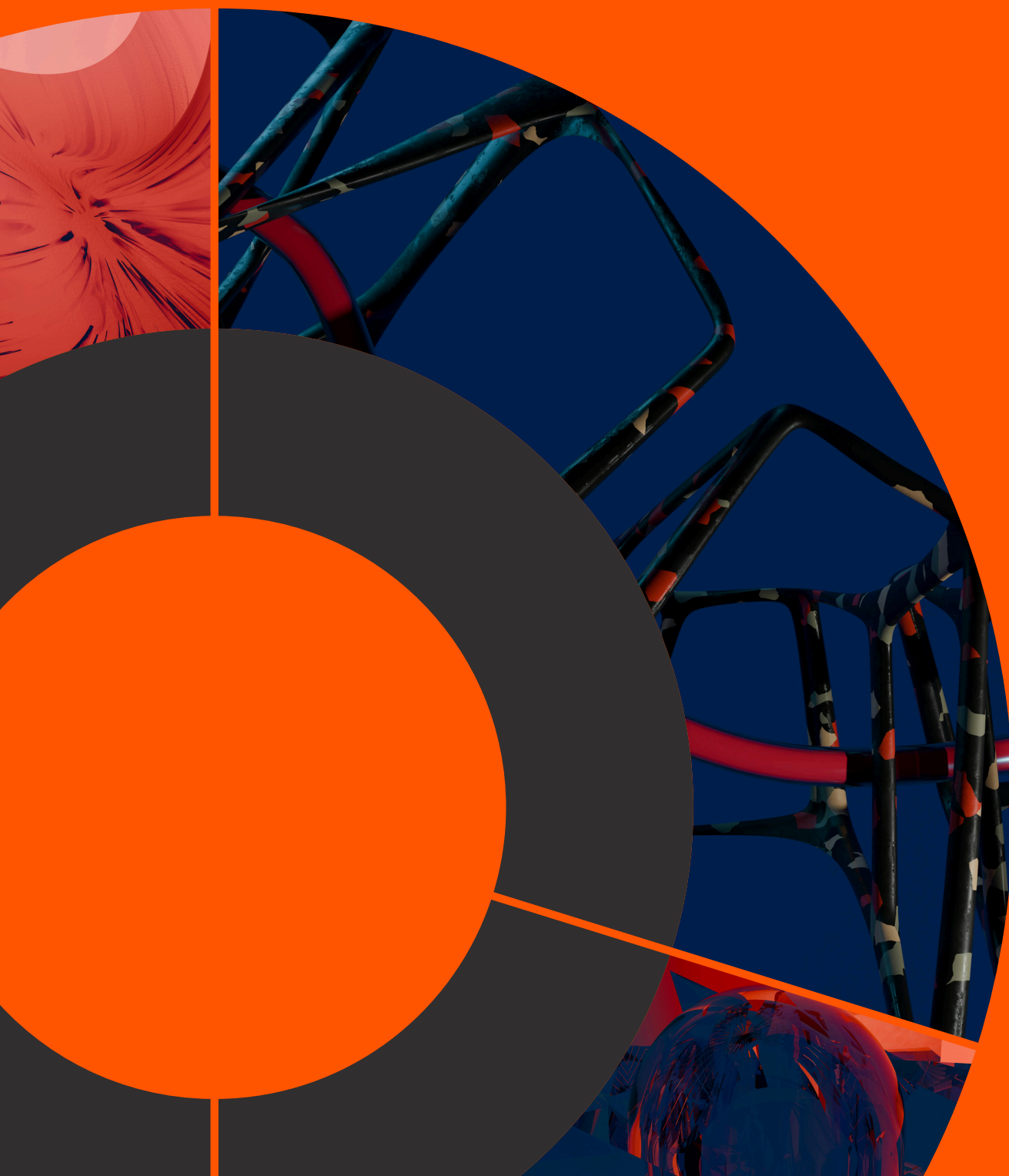
The goal of CORPUS is to become a permanent platform for strengthening the defense capabilities of Ukraine and its partners, as well as to unite procurement agencies for better coordination, increased resilience of supply systems, and enhanced cooperation in response to evolving security challenges.

Ukraine is continuing preparations for **Brave1 Defense Tech Valley** — a defense technology event to be held in **Lviv on September 16–17**, bringing together manufacturers, investors, and international partners. In 2026, the event is expected to become a platform for scaling Ukrainian solutions to the global level. Participation details are available on the Defense Tech Valley [website](#).

01



SECTION 2



Key Military Equipment and Weapons Systems Demonstrated by Developers, Codified/Approved for Use by the Defense Forces of Ukraine, or Proposed for Defense Cooperation Projects.

According to the nomenclature of UAV Systems

The Ministry of Defense conducted testing of a new generation of Ukrainian bomber drones at the Brave1 training ground. Eighteen teams developing solutions tailored to frontline needs participated in the trials. Each drone underwent comprehensive testing, including flights at distances of up to 20 km under electronic warfare (EW) conditions, target engagement, and return missions. The main focus of the testing was on resilient and secure communications, enabling operations at extended ranges.

The Ministry of Defense, together with Brave1, also tested a new generation of strike FPV drones from eight Ukrainian manufacturers at the training ground. The development of this FPV category is also being supported by UAV effectiveness advisor Serhii Sternenko. During the trials, the drones covered distances of up to 25 km and successfully struck targets under various EW conditions. Some of the systems fully completed all assigned tasks in an environment as close to combat conditions as possible.

THE BRAVE1 MARKETPLACE

has added the X1 Jet and X2 Jet unmanned aerial systems. These UAVs are designed for countering enemy unmanned systems and can also perform strike missions.

"BLUEBIRD TECH" COMPANY

introduced a new FPV drone line called Zhakh (Horror). The lineup includes three fiber-optic-controlled drones with different payload capacities.

THE MINISTRY OF DEFENSE

codified and approved the Ukrainian-made Shvydun unmanned aerial system for operation in the Armed Forces of Ukraine. It was developed to intercept and destroy strike UAVs such as the Shahed-136, Geran, and Gerbera, as well as reconnaissance drones including Zala, Supercam, and Skat.

"GENERAL CHERESHNIA COMPANY

unveiled a new strike UAV called Khmarynka (Little Cloud), positioned as a low-cost fixed-wing drone, for strikes against targets at tactical depth.

"PG ROBOTICS" COMPANY

announced the launch of serial production and opened orders for the **Lucky Strike-2 reconnaissance-strike UAV**, designed to operate under EW conditions. **The company highlights the use of FHSS (frequency-hopping spread spectrum) technology** as a key feature, ensuring stable communications under EW interference and maintaining control of the drone during reconnaissance and strike missions. The UAV combines reconnaissance and bomber functions, enabling a complete "detect-track-strike" cycle with a single platform without requiring additional assets.

"FRONTLINE ROBOTICS" COMPANY

introduced the upgraded **Zoom 3.0 reconnaissance UAV**. The system was developed based on previous drone versions. The updated model ensures stable operation under electronic warfare conditions, has a tactical radius of up to 15 km, and can transmit video for up to 20 minutes.

UKRAINIAN "ARMOR TOGETHER" WITH THE COMPANY "FOURTH LAW"

codified the 8-inch UB60D FPV drone equipped with the TFL-1 autonomous terminal guidance system, which increases strike effectiveness against enemy targets by 2–4 times.

"ALTAIR TECHNOLOGIES" COMPANY

stated that the Armed Forces have begun using **the TOR A unmanned system as a carrier platform for interceptor drones**. For mission execution, the system was equipped with FPV drone carriers and Rocket Drone JR-1 interceptors. The system simultaneously operates as a reconnaissance platform and a communications relay to extend UAV operational range.

"TRIDENT GROUP" COMPANY

has developed four AI-based products designed for integration into strike drones. The company presented four terminal guidance modules:

TRIDENT LMT — a terminal guidance module that, under electronic warfare (EW) conditions, provides automatic target tracking and strike capability even in the event of a complete loss of communications;

TRIDENT Mid Strike — designed for strikes at tactical depth. The system automatically detects a target and, after operator confirmation, performs autonomous tracking and engagement;

TRIDENT Deep Strike — a module for strategic missions that supports high-resolution video processing and automatically recognizes objects in real time at long distances;

TRIDENT Interceptor — intended for counter-UAV operations and optimized for intercepting high-speed aerial targets.

"BLUEBIRD TECH" COMPANY

released a new signal relay system for **the Vishchun-P** unmanned aerial complexes.

BRAVE1 MARKET

marketplace for weapons and military components has added a category of electronic initiation boards used in strike UAVs.

UKRAINIAN ENGINEERS

have developed a new power system for fixed-wing drones which, according to developers, allows them to fly more than 600% farther.

THE MINISTRY OF DEFENSE

is introducing a unified ground control station for fiber-optic drones across the armed forces. The solution is intended to eliminate the diversity of control systems, reduce operator workload, and improve the effectiveness of combat missions.

Key Military Equipment and Weapons Systems Demonstrated by Developers, Codified/Approved for Use by the Defense Forces of Ukraine, or Proposed for Defense Cooperation Projects.



UGV

The Ministry of Defense

01

codified and **approved the Bizon-L unmanned ground vehicle (UGV)** for use in the Armed Forces of Ukraine. The system is equipped with six types of communications, including LTE, Wi-Fi, Starlink, and others, ensuring stable control of the platform in areas affected by enemy electronic warfare (EW).

“Roboneers” company

02

introduced the **Lys MAX unmanned ground vehicle** — a tracked platform designed for casualty evacuation and logistics support operations in hard-to-reach areas. **Lys MAX** expands the Roboneers family of ground platforms, which already includes the **Lys** and **Lys PRO** models.

“Ratel Robotics” company

03

unveiled the **Nurse TB** tracked unmanned ground vehicle. The new robot was designed for logistics missions and remote mining operations. Weighing 120 kilograms, the UGV has a declared payload capacity of 150 kilograms and is capable of carrying up to six TM-62 anti-tank mines. The system is equipped with an intelligent “follow me” function: using a camera and target-lock capability, the UGV can automatically follow a soldier.

“Temerland” company

04

is preparing the Gnome robotic platform for testing. The system features a single-arm Smart Shuttle robotic manipulator intended for casualty evacuation, demining operations, and the remote disposal of hazardous objects.

Ukrainian developers

presented the **Spider unmanned ground vehicle** on a tracked chassis designed to engage armored vehicles, fortified positions, enemy personnel, and low-speed aerial targets. The system can be equipped with machine guns such as the Browning M2 and PKT, as well as AGS-17 and Mk19 automatic grenade launchers.

The Ukrainian company DevDroid

introduced electric trigger systems for combat platforms, enabling remote-controlled firing from machine guns and grenade launchers.

ACCORDING TO THE NOMENCLATURE OF AUTOMATED CONTROL SYSTEMS, COMMUNICATIONS, SITUATIONAL AWARENESS, ELECTRONIC WARFARE AND RECONNAISSANCE:

Компанія Himera

presented **Release 3.0 of its tactical communications system**. According to the company, the update focuses on expanding interoperability, improving security, and enhancing ease of use in combat conditions. Among the key upgrades is the introduction of a remote wipe command for G1 PRO radios, allowing all data on a device to be erased remotely in the event of loss or compromise. The manufacturer also strengthened system protection and added support for quantum-secure encryption developed in cooperation with Quantropi.

The Ukrainian team Sych Tech

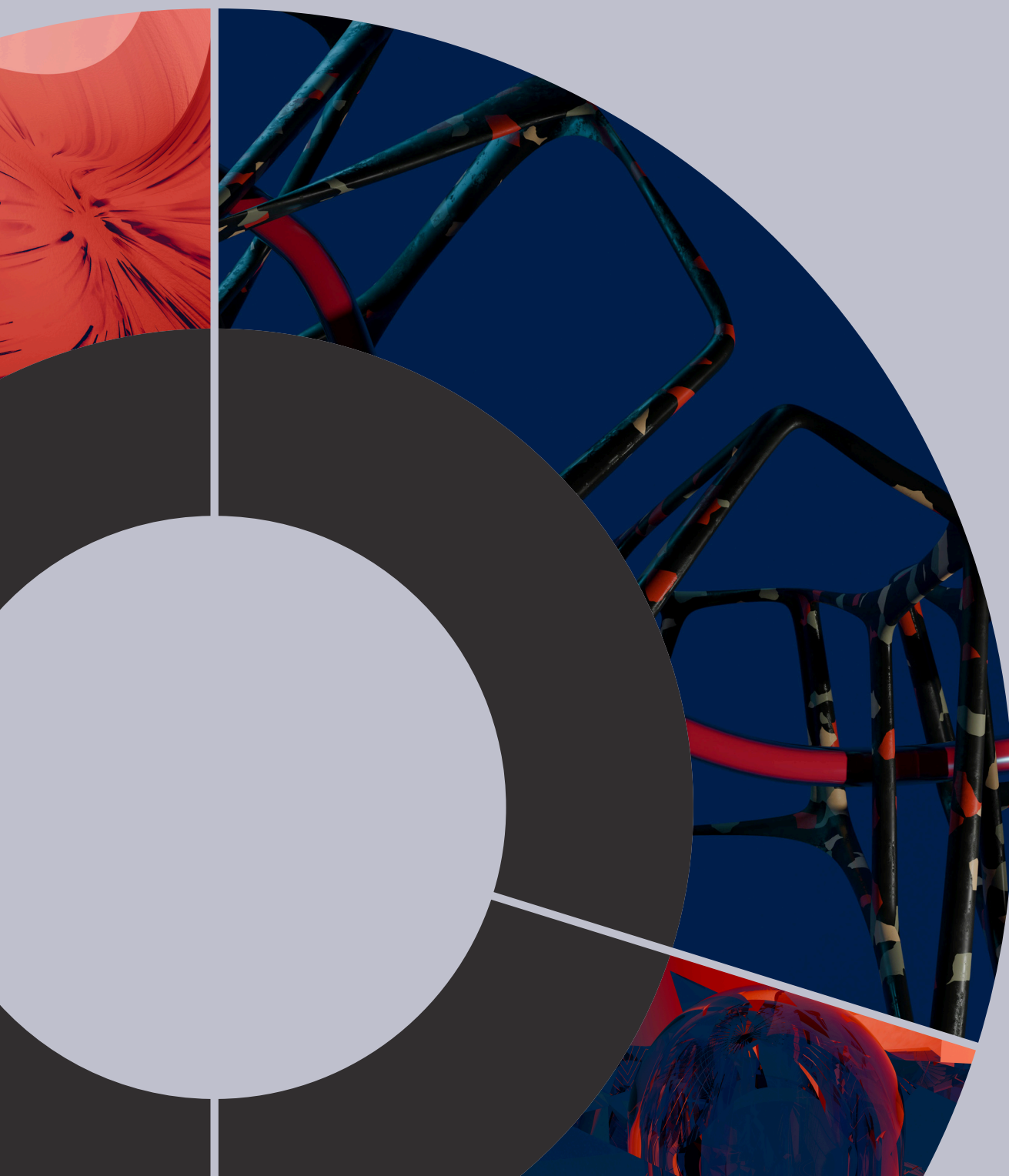
developed the portable **SYCH-AIR-S electronic countermeasure module** designed to detect and suppress analog video signals from FPV drones, including interceptor drones. The device can be integrated into both ground and aerial platforms.

The Ukrainian company Kara Dag Technologies

introduced the portable **wideband drone detectors Obriy 1.3C and Obriy 1.4C**, intended for early detection of unmanned aerial threats. Both models operate within the 1–6 GHz frequency range (1050–2600 MHz, 2720–4000 MHz, and 4000–6040 MHz \neq 6 GHz exactly), enabling detection of FPV drones, quadcopters (including DJI and Autel systems), as well as certain fixed-wing UAVs.



SECTION 3



+ New technologies and innovative developments, investment and joint projects

The study “Ukrainian Defense Technology Market: Opportunities for Investors”, prepared by the KSE Institute in cooperation with Brave1 and Defence Builder, has been published.

Key highlights:

The Ukrainian defence technology market reached approximately \$6.8 billion in 2025. In particular, UAV production increased by 137%, ground robotic systems by 488%, and electronic warfare systems by 215%.

Drones remain the largest segment with an estimated market volume of \$6.3 billion. The fastest-growing categories are long-range drones and interceptors, while FPV drones remain the most widely used. Promising areas include interceptors, which are only beginning to scale, middle-strike drones, and domestically produced reconnaissance multicopter alternatives to Chinese DJI systems.

The segment of ground robotic systems, which remains relatively small, grew sixfold to \$252 million in 2025. The main driver of growth is logistics and evacuation platforms.

The electronic warfare (EW) systems market is estimated at \$220 million and has grown 3.1 times. It is transitioning from individual solutions to the serial production of proven platforms, with a focus on software-defined systems capable of analyzing signals and selectively jamming them.

CURRENTLY, TECHNOLOGICAL DEVELOPMENT IS CONCENTRATED IN FOUR MAIN AREAS:

resilient multi-layer communications resistant to electronic warfare (EW); alternative navigation systems independent of GPS and based on artificial intelligence and inertial technologies; enhanced autonomy through automatic target detection and inter-drone coordination; and integration, reflecting the transition from standalone solutions to interconnected systems capable of rapidly adapting to emerging tasks.

In 2025, Ukrainian defence companies and startups attracted approximately \$129 million in investments and grants — a minimum estimate, as part of the deals remain undisclosed for security reasons.

The partnership between Ukraine and the United States opens opportunities for deeper industrial cooperation, and the potential for rebuilding the defense sector over a 10-year horizon is estimated at \$690 billion.

According to the Stockholm International Peace Research Institute (SIPRI), Ukraine became the world's largest importer of major arms during 2021–2025. Ukraine's share of global imports in this period was 9.7%, compared to just 0.1% in 2016–2020.

The European Commission has approved a €1.5 billion work programme under the European Defence Industry Programme (EDIP), aimed at strengthening Europe's and Ukraine's defence industries, increasing production capacity, and fostering innovation. The programme provides funding for joint projects, supports Ukraine's defence industrial base, and creates opportunities for defence companies and startups.

FUNDING FOR PRODUCTION AND SUPPORT TO UKRAINE.

More than €700 million will be allocated to increase the production of critical defence capabilities, including counter-drone systems, missiles, and ammunition. Of this amount, €260 million is allocated under the Ukraine Support Instrument (USI) for the recovery and modernization of Ukraine's defence industrial base.

These are joint projects between Ukraine and European Union member states based on operational requirements identified by current battlefield needs, enabling simultaneous scaling of production both in Ukraine and across the EU.

JOINT DEFENCE PROJECTS.

€325 million will be allocated to the implementation of European Defence Projects of Common Interest (EDPCI). These initiatives aim to develop large-scale cooperative projects in the defence industry. In addition to EU member states, Ukraine and Norway are also eligible to participate.

PROCUREMENT AND CAPABILITY DEVELOPMENT.

Окремий акцент програми – розвиток інновацій та підтримка оборонних стартапів. €100 млн буде спрямовано на фінансову підтримку малих і середніх підприємств через фонд FAST (Fund Accelerating Defence Supply Chains Transformation).

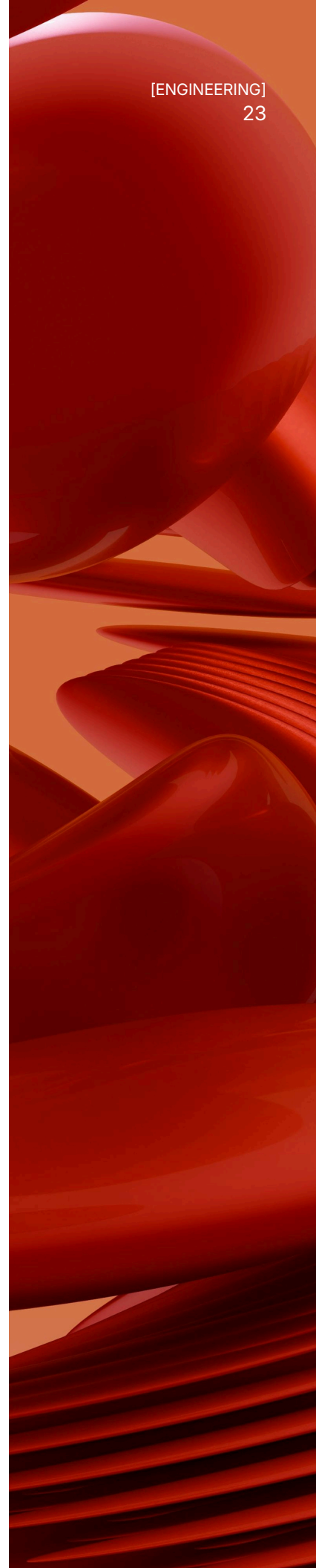
Додатково €35,3 млн передбачено на програму BraveTech EU. Це спільна грантова програма для стартапів з України та країн ЄС, яку координує кластер оборонних технологій Brave1. У фокусі — розробка інноваційних рішень для потреб Сил безпеки і оборони.

SUPPORT FOR STARTUPS AND INNOVATION.

A key focus of the programme is fostering innovation and supporting defence startups. €100 million will be allocated to financial support for small and medium-sized enterprises through the FAST fund (Fund Accelerating Defence Supply Chains Transformation).

AN ADDITIONAL €35.3 MILLION IS ALLOCATED TO THE BRAVETECH EU PROGRAMME.

This is a joint grant programme for startups from Ukraine and EU countries, coordinated by the defence technology cluster Brave1. It focuses on developing innovative solutions for the needs of the Security and Defence Forces.



03

Based on the evaluation of funding applications in 2025 under the European Defence Fund, the European Commission has decided to invest €1.07 billion in 57 new projects, with Ukrainian companies also participating in these initiatives.

The investments will support the objectives set out in the Defence Readiness Roadmap 2030 and provide the necessary funding for four major EU defence flagship projects: the European Drone Defence Initiative, Eastern Flank Surveillance, the European Air Shield, and the European Space Shield.

The selected 57 projects cover a wide range of critical areas, including artificial intelligence, cybersecurity, unmanned technologies, and counter-drone systems.

Of the total funding: €675 million will be allocated to 32 capability development projects, while €332 million will go to 25 research initiatives.

On April 23, the Council of the EU approved a financing strategy for Ukraine through the end of 2026, under which Ukraine is expected to receive €45 billion this year, although this amount may be revised upward if Ukraine's needs change due to the unpredictability of the war.

Of this amount, €16.7 billion is intended for budget support and €28.3 billion for defence assistance. The first defence tranche amounts to €6 billion and will be directed toward the procurement of drones produced in Ukraine.

The European Commission and the Ministry of Defence of Ukraine have launched cooperation in investing in innovative and breakthrough technologies. The relevant agreement was signed during the EU-Ukraine Business Summit in Brussels. The programme aims to support strategic sectors of Ukraine's economy, with a particular focus on industries related to the development of innovative and advanced dual-use technologies.

The agreement provides for the launch of a comprehensive financial programme with a total volume of €161 million. It is expected to mobilize up to €400 million in bank lending, including for capital investments and operating expenses. The programme will be coordinated by the Ministry of Defence of Ukraine, while implementation will be carried out by the National Development Institution (NUR).

During a meeting of the Governing Council of the US-Ukraine Reconstruction Investment Fund (URIF), an investment in the Ukrainian dualuse technology company Sine Engineering was approved. The company specializes in communications and navigation, and its components are already used by more than 150 Ukrainian drone and interceptor manufacturers.

Less than a year after the bilateral agreement was signed, the fund received over 200 applications for consideration, most of them submitted by Ukrainian companies.

More than 100 American investors showed interest in Ukrainian defence companies following the Brave1 US Roadshow. The roadshow took place in the United States and included meetings with congress members, government officials, defence experts, investors, and media representatives. The events covered Boston, New York, Washington, Dallas, Austin, and San Francisco.

During the two-week investment tour in the US, the Brave1 US Roadshow brought together more than 3,000 representatives of venture funds, corporations, family offices, and legislators who engaged with Ukrainian defence startups. It is noted that the participating investors collectively manage assets exceeding \$15 trillion.

The Brave1 defence technology cluster announced the results of the first selection phase of the EU4UA Defence Tech project, conducted jointly with the European Union and BRDO. Twelve Ukrainian defence companies will receive up to €150,000 to develop air defence solutions.

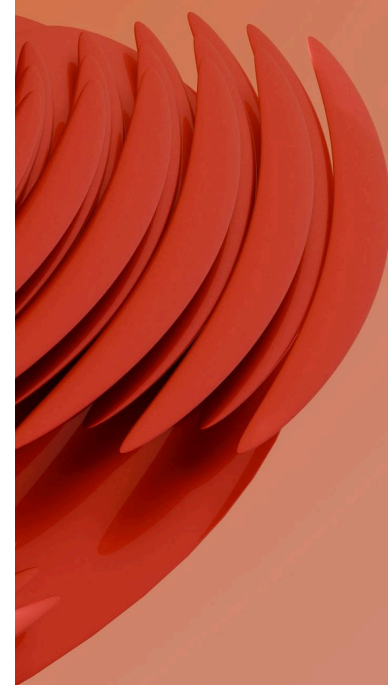
The cluster selected 12 technologies aimed at protecting the skies, including interceptor drones and airborne target detection systems. The manufacturers will receive grants of up to €150,000 to develop these solutions.

The second phase of the EU4UA Defence Tech grant programme is also being launched to support the development of components for unmanned systems. The competition will fund the development and prototyping of the following components: electric motors, flight controllers, ESCs (electronic speed controller), VTX (video signal transmitter) systems, cameras, thermal imagers, onboard computers, and sensors for UAVs.

Eleven teams will be eligible for grants of up to €75,000 each. The targeted technology readiness level (TRL) is 4–5.

On April 22, 2026, the event “Drone Autonomy” was held in Lviv, dedicated to the practical development and deployment of autonomous drone systems and artificial intelligence in defence applications. The event was organized by the IRON cluster and the company The Fourth Law.

The Ukrainian defence company Aerobavovna has secured investment from the US-based fund Pravo Ventures. The company produces aerostats used by Ukraine’s Defence Forces. In May of last year, Aerobavovna developed a new aerostat model designed for high-altitude deployment of powerful electronic intelligence and electronic warfare systems. The system is capable of lifting up to 30 kilograms of payload into the air.



The Ukrainian company Stetman and the Danish company GomSpace have signed a cooperation agreement under which the parties plan to establish a joint venture to produce small spacecraft in Ukraine.

It is noted that communication satellites for Ukraine will be developed within the UASAT LEO programme. The launch of the first satellite is scheduled for October of this year to test the technology and the satellite constellation management model.

The Ukrainian company Tencore and the French company Shark Robotics have announced the creation of a joint venture for the production of ground robotic systems. This cooperation is intended to ensure Europe's technological autonomy and integrate Ukraine's defence experience into shared industrial supply chains. Previously, Tencore signed a cooperation agreement with the Finnish company Insta.

The Ukrainian company TAF Industries and the German company THYRA have signed a memorandum on strategic cooperation, which provides for the creation of a joint venture for interceptor drones in Germany. The partnership will be implemented within the framework of the "Build with Ukraine" programme.

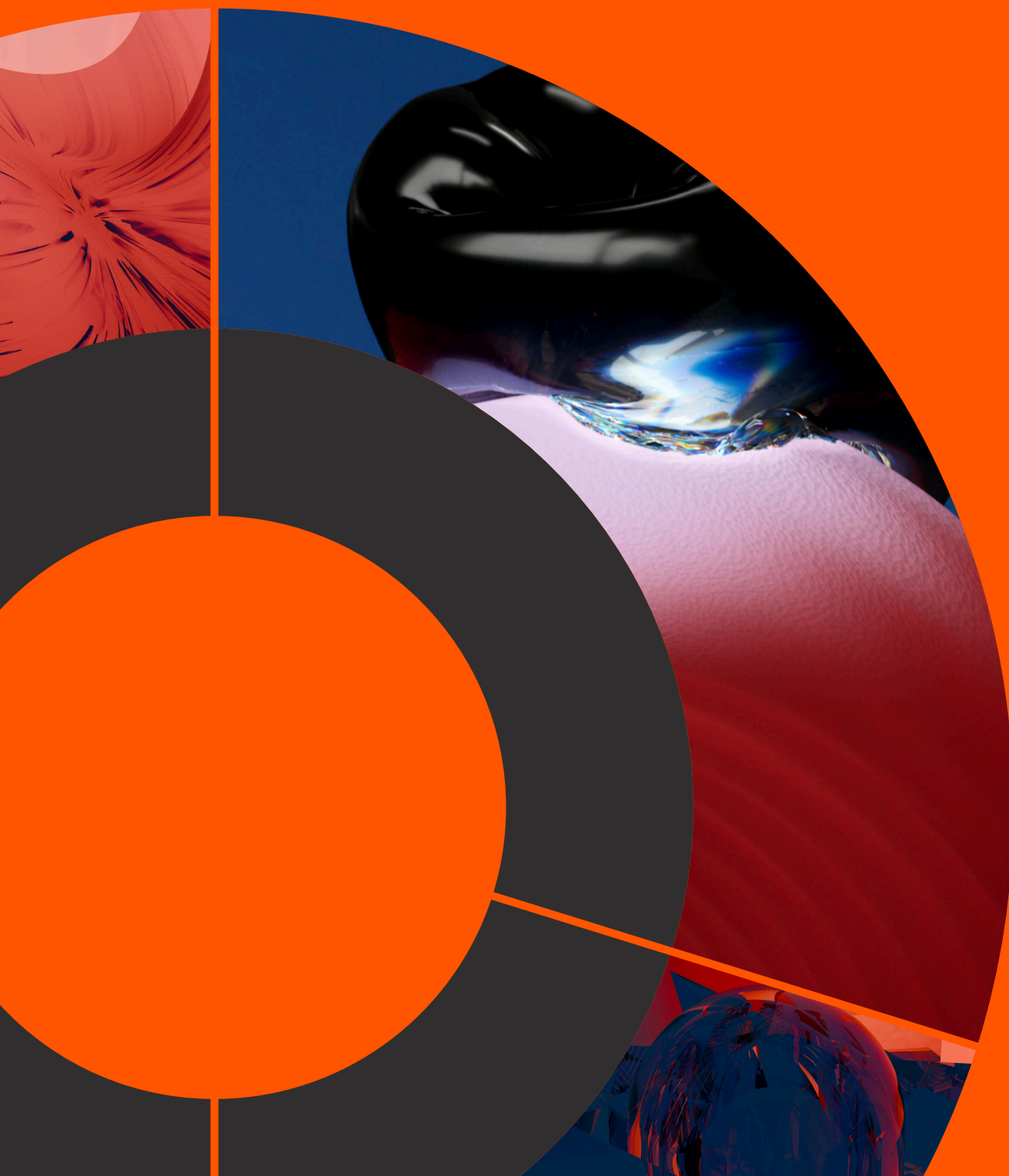
Ukraine and Norway are establishing the first joint production facility for Ukrainian unmanned aerial vehicles. The plan is to manufacture several thousand mid-strike drones in Norway. All equipment produced under the project will be delivered to the Defence Forces of Ukraine.

The company General Cherry has announced a strategic partnership with the US corporation Wilcox Industries, under which a joint venture will be established to produce FPV drones and interceptor drones.

In addition, General Cherry and the Croatian UAV manufacturer Orqa are launching serial production of European components in Ukraine.



SECTION 4



DEFENCE TRADE AND DEFENCE EXPORTS

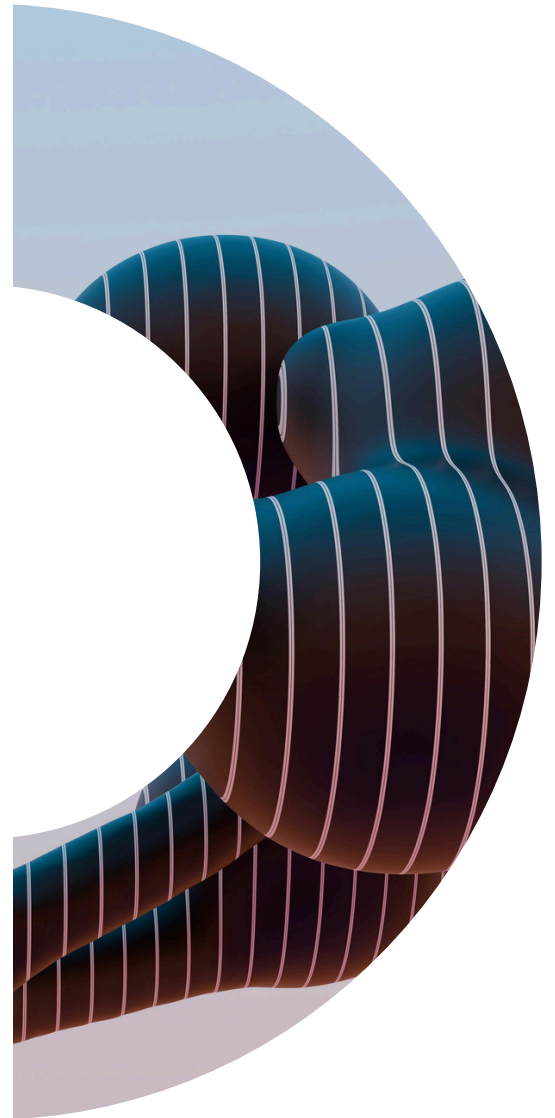
Prospects for Ukraine's cooperation with Middle Eastern countries in the defence sector: defence cooperation agreements have currently been signed with Saudi Arabia, Qatar, and the UAE, while similar negotiations are underway with Bahrain, Kuwait, and Oman. A key driver of this process is the demand for Ukrainian expertise in air defence and counter-drone systems.

Ukraine and Germany have concluded a series of defence agreements worth a total of €4 billion, aimed at strengthening air defence, developing unmanned systems, and expanding joint defence production.

Within the framework of the "Build with Ukraine" initiative, the parties agreed to launch production of mid-strike drones using innovative technologies, including elements of artificial intelligence. The project envisages the creation of a joint venture in Germany, financing from the German side, and the delivery of all produced drones to the Defence Forces of Ukraine, with the first phase covering several thousand mid-strike drones.

Agreements were also concluded regarding the financing of Ukraine's deepstrike capabilities. This includes investments of €300 million in the production of long-range weapons. The parties also discussed further strengthening of air defence systems.

The development of joint solutions for intercepting ballistic missiles was also discussed. Another area of cooperation will be the testing of German defence solutions in Ukraine. The Ukrainian side has the capability to conduct trials in real combat conditions and provide objective feedback. The "Test in Ukraine" initiative enables the selection of technologies that have proven effective on the battlefield.



The parties also plan to develop ground robotic systems.

The United Kingdom has announced the transfer of the largest UAV package in its history to Ukraine, with plans to deliver more than 120,000 drones this year.

On April 16, Ukraine and the Netherlands signed a defence cooperation agreement, including an investment of €482 million in Ukraine's defence industrial complex. The funds will be directed toward UAV production projects and the joint development of the defence industry.

It has been announced that Bell Textron will establish a subsidiary in Ukraine that will be responsible for the assembly, maintenance, and repair of UH-1Y and AH1Z helicopters.

The German company Hensoldt has opened a service and innovation centre in Ukraine to support the armed forces and develop defence technologies. Hensoldt supplies Ukraine with radars for air defence systems, including TRML-4D and SPEXER. The company also provides helicopter self-protection systems AMPS (Airborne Missile Protection System). A key objective of the centre is to combine innovation with industrial implementation.

The Canadian company ZenaTech plans to establish a testing center in Ukraine for drone trials and validation of its interception systems. The creation of the center will complement previously announced plans to launch drone production in Ukraine.

At the same time, during the reporting period, **the most high-profile issue for Ukraine's defence industrial sector remained the problem of opening up defence exports.**





Key points

[2026/05]

In this context, **Head of the Office of the President Kyrylo Budanov stated:**

“Let’s be honest — free sale of weapons during an active phase of war is impossible. This would not be understood either by our soldiers on the front line or by Western partners from whom we ourselves request weapons. I believe that free export is only possible for items that are in surplus, for example naval drones.”

According to Budanov, Ukraine could also export weapons that are no longer widely used in the war against Russia but are still in demand in Asia or Africa — for example, certain long-range UAVs or early-generation FPV drones. At the same time, it is important to prevent uncontrolled technology leakage from Ukraine.

He also noted that Ukraine is currently at a point where its experience and technologies have become a global brand: “But this status will not last forever. We have a unique window of opportunity to secure our niche in the global market.”

Despite announcements about launching a mechanism for Ukrainian arms exports last autumn, no Ukrainian manufacturer is currently selling weapons abroad, according to presidential adviser Oleksandr Kamyshin.

He explained that in order to begin exports, companies must receive a corresponding contract from foreign governments, but none have received such contracts so far. Kamyshin noted that the process of foreign governments procuring Ukrainian weapons is significantly more complex than it may appear, as it requires changes in military doctrines, testing, and approval of new procurement procedures.

Such processes may take at least a year, which means estimates of potential exports at \$2–3 billion already this year are overstated. At the same time, the adviser acknowledged that Ukraine could produce up to \$50 billion worth of weapons in 2026, while actual orders do not exceed \$15 billion.



The National Association of Ukrainian Defence Industries (NAUDI) has called for the immediate unblocking of controlled arms exports with clear and transparent procedures. It welcomes the decision to unblock exports of weapons and military equipment, but notes that the current system functions more as a restrictive barrier than a permitting mechanism.

Due to a lack of funding, systemic problems in the sector are intensifying. Companies are widely facing shortages of working capital, being forced to limit investment in development and technology and slow down production scaling.

At the same time, NAUDI emphasized that controlled exports of weapons and military equipment, provided that the absolute priority of supplying the Armed Forces of Ukraine is maintained, could strengthen Ukraine's defence capability and geopolitical standing.

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TCY (Technological forces of Ukraine) calls for accelerating the implementation of unified and transparent mechanisms for the export of armaments and military equipment (AME) for the industry.

Key points:

In February, Ukraine took a step toward opening up exports of Ukrainian weapons. The President of Ukraine announced joint ventures under the Build with Ukraine program and approved the composition of the Interagency Commission on Military Technical Cooperation (MKBTC), which has begun issuing export permits in accordance with national legislation through a controlled export mechanism.

Since March 27, 2026, the first announcements have already been made regarding signed agreements on defense cooperation with Saudi Arabia and Qatar, as well as ongoing negotiations with the UAE and Jordan. Ukrainian military experts are already operating in the UAE, Qatar, and Saudi Arabia.

Due to strong interest from Ukraine's allies in Ukrainian technologies, the opportunity to strengthen Ukraine's role and position as a security contributor, and the capacity of Ukrainian manufacturers to produce goods both for the Armed Forces of Ukraine and for fulfilling agreements with international partners, TCY calls for accelerating the relevant state processes.

Regarding the prospects of the Ukrainian defense-industrial complex abroad, attention should be drawn to the article by Nataliia Mykolska, Executive Director of Diia.City United, titled “Without Ukrainian technologies and production speed, Europe will not manage to rearm itself,” based on the outcomes of the EU–Ukraine Business Summit.

Key points:

In 2025–2026, a qualitative transformation of Ukraine’s role in the European and broader Euro-Atlantic security system is taking place. Ukraine is gradually moving from the status of a purely aid recipient to a full-fledged participant in shaping the European Union’s defense capabilities. European partners increasingly view Ukraine’s defense-industrial complex (ОПК), particularly the defence tech and dual-use technology segments, as part of their own rearmament efforts and strategic autonomy. Ukraine’s key competitive advantage lies in the speed of its innovation cycle (from development to battlefield deployment), production flexibility, and cost efficiency. At the same time, EU financial policy is also evolving: dedicated mechanisms are being launched to support defense and dual-use technologies, indicating the gradual integration of Ukrainian technologies into Europe’s security and recovery architecture.

Key issues:

Regulatory unpredictability on the Ukrainian side. The absence of a simple, transparent, and stable system for controlling the export of defense technologies hinders the development of partnerships, slows down the conclusion of contracts, and deters foreign investment.

Institutional inertia of the European Union. The European defense system is characterized by slow procurement procedures, complex regulation, and market fragmentation, which limits the speed of integration of Ukrainian solutions.

Insufficient access to financial resources. European venture capital and investment flows into defence tech are significantly slower compared to the United States, which restricts the scaling of Ukrainian technologies.





Prospects:

Integration into the EU defense market. Ukraine has the potential to become an integral part of European defense value chains, including joint production and exports.

Formation of a new model of defense cooperation. The development of joint ventures, joint R&D, and technology transfer creates opportunities for long-term integration of Ukrainian companies as equal partners.

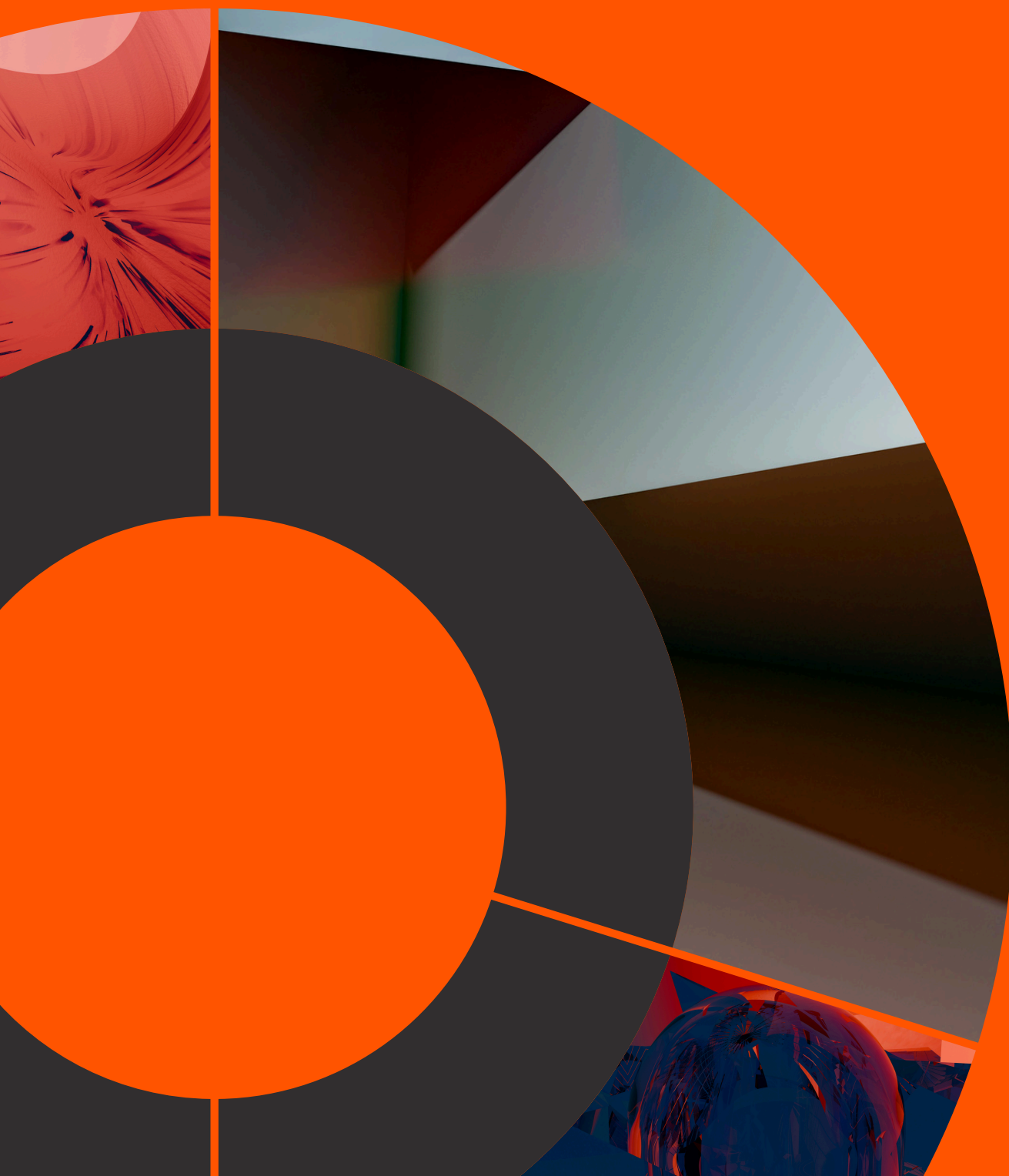
Leadership in defence tech. Ukraine can consolidate its position as one of the key centers of military innovation in Europe, particularly in UAVs, electronic warfare (EW), autonomous systems, and rapid engineering solutions.

A shift in the role of Europe's reconstruction. Dual-use technologies are becoming the foundation of a new model of economic recovery in which Ukraine acts not as an object of aid, but as a source of competitive solutions.

General conclusion: Ukraine has already de facto become an integral part of Europe's new defense architecture. The key task for the state is to institutionalize this role and transform temporary military cooperation into long-term economic and technological integration that is mutually beneficial.



SECTION 5



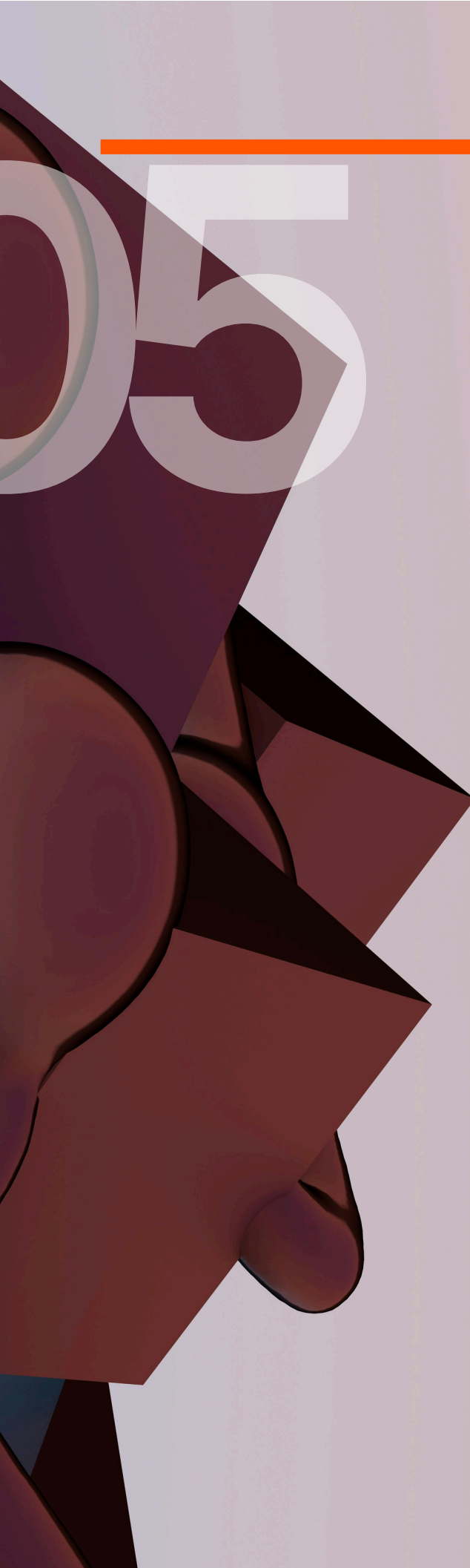
Materials from open sources regarding the results and operational combat experience of selected weapons and military equipment systems.

Ukraine's Minister of Foreign Affairs, Andrii Sybiha, stated: "Ukrainian-made weapons account for up to 95% of long-range strikes against enemy targets. Domestic manufacturers also produce approximately 1,500 interceptor drones every day... Today, our own weapons cover three-quarters of the needs of our armed forces, and it is precisely with our own weapons that we carry out up to 95% of long-range strikes against the enemy. Last year alone, we introduced more than 1,300 models of Ukrainian-made weapons into service. Every day, our manufacturers produce around 1,500 interceptor drones."

Oleksandr Kamyshin, Strategic Adviser to the President of Ukraine, stated that the first joint production facility between Ukraine and Germany has been launched under the "Build in Ukraine" program: "By the end of this year, the entire team is working to ensure that there will be at least 10 such production facilities across Europe."

Volodymyr Zelenskyy stated that Ukrainian electronic warfare (EW) and interceptor drone specialists deployed to the Middle East have already successfully shot down Iranian drones:

"We demonstrated to several countries how to work with interceptor systems. Did we destroy them? Yes, we did. Did we do this in only one country? No, in several countries. Yes, they were shooting down Shahed drones, and this is very good. In those countries that opened their air defense systems to us, our experts were able to quickly advise them on how to strengthen these systems. In some cases, we directly shared our own experience in defense operations. We also shot down drones equipped with jet engines."



Materials from open sources regarding the results and operational combat experience of selected weapons and military equipment systems.

Mark Rutte, during a speech at the Ronald Reagan Institute in Washington, stated that countries in the Persian Gulf and allies on NATO's eastern flank are currently defending themselves against Russian and Iranian drones using Ukrainian technologies.

The Defense Forces of Ukraine conducted a unique operation during which enemy positions were captured using unmanned aerial systems and ground robotic complexes (HPK), without the involvement of infantry forces.

This was stated by Volodymyr Zelenskyy, who emphasized that the occupying forces surrendered specifically to robotic systems. According to the Head of State, the operation was completed without any Ukrainian casualties, marking a historic precedent in this war.

He also reported that, over the past three months alone, Ukrainian robotic systems such as Ratel, Termit, Ardal, Lys, Zmiy, and others carried out more than 22,000 combat missions.

Volodymyr Zelenskyy stressed that the future of warfare is already being shaped on the battlefield, and that Ukraine is a leader in the implementation of advanced technologies aimed at protecting its defenders.

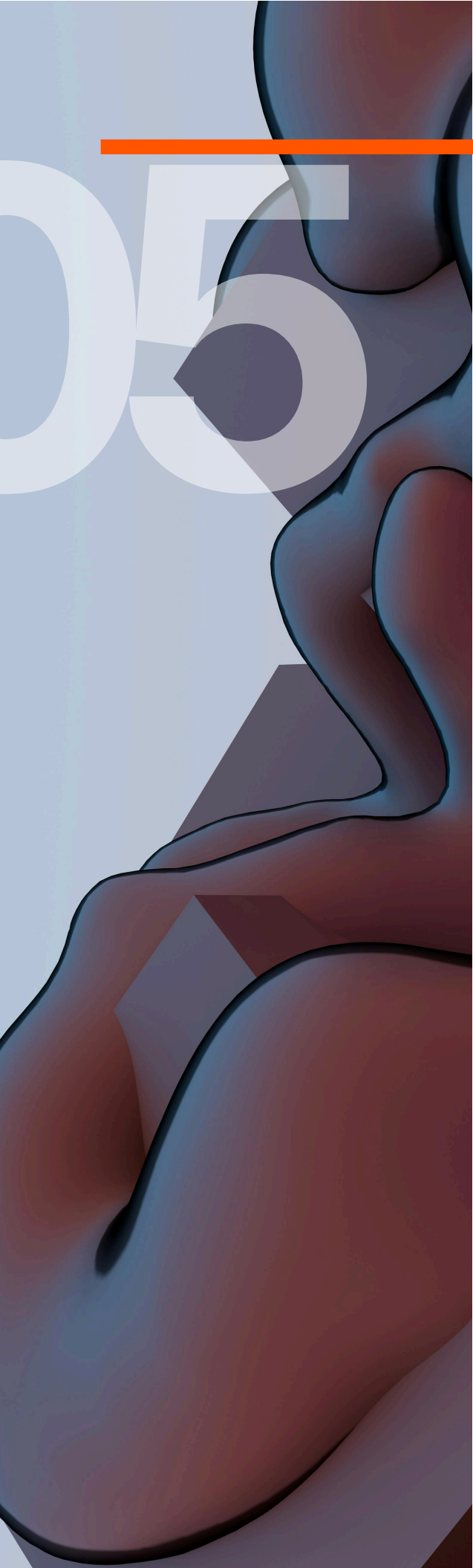
The analysis of the evolution of the development and deployment of ground robotic complexes (HPK) is detailed in [a publication](#) by Viktor Pavlov, founder of the HPK School and an officer of the HPK Battalion of the 3rd Assault Brigade of the 3rd Army Corps. He also identified three key challenges facing HPK that must be addressed immediately:

- Lack of unified coordination. A national coordination center is needed. At present, the process of scaling and developing robotic warfare units lacks a unified strategy and properly defined priorities, which leads to the fragmentation of resources.

Recruitment and specialization. We must prioritize recruitment specifically for robotic units. Training is improving, but there is still a lack of a systematic, army-wide approach to attracting specialists for the ground robotic complexes (HPK) sector.

- Financial burden and VAT. The reinstatement of VAT for ground robotic complexes (HPK) earlier this year became a serious financial barrier. Drones were effectively classified the same way as ordinary vehicles, which increased their cost and placed an additional burden on military units. Compounding the issue is the lack of officially established repair workshops: drones are damaged in combat, yet there are still no officially designated field repair facilities to service them, while obtaining equipment and supplies for such workshops often takes months.

The combat employment experience of Leopard 1A5 tanks, particularly their survivability, is discussed in [a publication](#) by Vladyslav Khrystoforov, a journalist with "Oboronka".



The combat employment experience of artillery units under modern conditions is discussed in the publication "How Air Assault Troops Are Building the Artillery of the Future."

The current state and development prospects of certain components of the national air defense system, as well as the combat employment experience of the relevant units, are discussed in an interview with Colonel Pavlo Yelizarov.

This information and analytical material was prepared using information and analytical tools (including the "OCHI AI" system) exclusively on the basis of open sources and in compliance with the legislation of Ukraine concerning the protection of state secrets and restricted-access information in general.

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