

SECURITY PROMOTERS - FLAGSHIP EXPORT PRODUCTS OF THE POLISH DEFENCE INDUSTRY [REPORT]

Defence24 Group has presented its “Security Promoters - Flagship Export Products of the Polish Defence Industry” report during the MSPO 2019 event. The report showcases a selection of products offered by the Polish defence industry, with those products having the greatest export potential.

Increasing the export sales - this is one of the top and one of the primary challenges that the Polish defence industry needs to face. The domestic defence industry today may increase its competencies and expertise thanks to the increased Armed Forces modernization expenditure and the associated orders. However, to make the functioning of the defence industry sustainable in a longer run, it is highly desirable and necessary to increase sales on the foreign marketplace.

Polish industry has a broad range of know-how available at hand already, for instance in the domains of artillery systems, autonomous and unmanned solutions, in the area of radars, C4ISR solutions, Precision Guided Munitions or firearms. However, opening itself towards the export market, the Polish industry would need to **focus its development efforts** on the most important domains, and on **intensively promoting of key offerings**, constituting, as complete and modern solutions, an attractive product for the foreign customer.

Within the “Security Promoters - Flagship Export Products of the Polish Defence Industry” report, the experts and journalists of Defence24.pl present a list of selected products that have the greatest export potential. The document has been prepared in Polish and English which is to increase the awareness on the capacity that remains available in case of the Polish industry. The report promotes the key products.

The report was also being presented by the head of the Polish Ministry of Defence, Mariusz Błaszczak. The expert debate that takes place within the framework of the presentation involved:

- Marek Łapiński, Secretary of State at the Ministry of Defence
- Piotr Wawrzyk, Undersecretary of State at the Ministry of Foreign Affairs
- Michał Jach, Chairman of the Parliamentary National Defence Committee
- Witold Słowik, President at the PGZ Group
- Piotr Wojciechowski – President of the Management Board at the WB Group

- Janusz Noga, President at the Telesystem Mesko company.

The debate will be led by Jędrzej Graf, Editor in Chief at Defence24.pl

The event received honorary support of the head of the MoD, Mariusz Błaszczak, Ministry of Entrepreneurship and Technology, Ministry of Foreign Affairs and Chairman of the Parliamentary National Defence Committee, Michał Jach.

The report presents products as follows:

1. RAK Self-Propelled Mortar

RAK is self-propelled mortar system of a 120 mm caliber – designed and produced by Huta Stalowa Wola a part of Polska Grupa Zbrojeniowa. Mortar is being used to provide fire support at 12 km distance. Rak has unique automated loading system and a modern fire control unit. Rak's turret system is capable of firing without the crew inside the vehicle. It can be further improved in the direction of automated systems. Along with mortar there are other vehicles which are a part of a combat module.



Photo by Jerzy Reszczyński

2. FlyEye and Warmate Unmanned Aerial Vehicles

Unmanned systems FlyEye and Warmate were designed by WB Group. FlyEye is a reconnaissance UAV, launched from operators hand, with a range up to 50 km. It can share data with the battle management system in real time.



Warmate UAV. Photo by Juliusz Sabak/Defence24.pl

Warmate is a loitering ammunition system, which is able to find and destroy ground targets. FlyEye and Warmate may be used separately or under one system. Both UAV systems were recognised in one of the most demanding markets in the world: in Asia, Middle East and in Ukraine. They are in operational use and constantly improved with the use of gained experiences.

3. GROM and PIORUN Man-Portable Air Defence Systems

Man-portable anti-aircraft systems GROM and PIORUN are the products of Mesko and Telesystem-Mesko companies. Their mission is to engage low-flying air targets with infra-red guided missiles. GROM was produced in few thousand units. System GROM belongs to the best in the world VSHORAD missiles. It's effective ceiling was confirmed in war conditions in Georgia in 2008. Among the customers for GROM are, among others, United States of America.



GROM and PIORUN manpads. Photo by Defence24.pl

PIORUN is a new generation of the short range missile with even better capabilities than GROM. The effective range and ceiling was improved, to respectively 6.5 and 4 km. The new guidance system enables to engage the most difficult targets, day and night, also in heavy interference environment.

4. PIAP Mobile Robots

Robots designed by Przemysłowy Instytut Automatyki i Pomiarów PIAP are supporting the armed forces and uniformed services in performing most difficult and most dangerous tasks. They are capable of performing reconnaissance, pyrotechnic and interventionist tasks, also in contaminated environment.



PIAP IBIS robot. Photo by PIAP

Mobile robots with a modular construction are integrated with a broad range of additional equipment. PIAP's robots are used by armed forces and antiterroristic formations, among others, in Poland, Saudi Arabia, Indonesia, South Korea, Pakistan, Romania, Nigeria and United Arab Emirates.

5. LUBAWA Multispectral and Mobile Camouflage Systems

Systems of multispectral camouflage from Lubawa Group protect from detection by optical, thermal and radio sensors. The innovative technology was designed in Poland and ordered by MoD. Camouflage enables to hide vehicles and objects from even the most advanced observation and reconnaissance systems.



Rosomak APC with Lubawa multispectral camouflage. Photo by Lubawa Group

Elements of camouflage are available in many variants and are used also in programmes of modernisation of the armoured vehicles belonging to the United States stationed in Europe. They can be adjusted to the local environment and a masked object properties. They may be also attached to the additional armour sets for vehicles. This is an unique system in the world.

6. P-18PL and SPL Early Warning Radars

Radar stations SPL and P-18PL were designed by PIT-RADWAR. Their role is to early detect air targets. Thanks to the use of the breakthrough technologies they are capable to pinpoint objects with stealth characteristics. Construction of the systems makes their detection and overpowering by electronic warfare measures more difficult.

Passive location system SPL is an entirely passive device and the active radar P-18PL works in meter band. SPL and P-18PL may cooperate with air defence systems of a short and medium range. This significantly increases combat capabilities and the chances of survival of the air defence systems.



Longwave P-18PL radar station with partially extended antenna system. Photo by M. Dura

Those are one of the most advanced and effective detection systems in the world.

7. Kormoran II Mine Counter Measures Vessel

Minehunter Kormoran II was designed by Remontowa Shipbuilding shipyard and OBR CTM, a subsidiary of PGZ, under the broad cooperation with other companies of Polish defence industry. Ship is used for fighting the mine threat with a broad array on equipment, interlinked with integrated battle management system.



Photo by Andrzej Nitka/Defence24.pl

Specially designed construction lowers the probability of ship's detection by acoustic and magnetic sensors. That provides the safety of the crew and high effectiveness in countermine actions.

8. TOPAZ Battle Management System and FONET Onboard Internal Communications System

TOPAZ is a battle management system from WB Group. It may support guiding artillery fire or actions in other fields. It enables automatisated data processing, including information from reconnaissance gained from radars and UAVs. It was tested and is still being developed further. TOPAZ was installed on more than 500 artillery vehicles in Polish Armed Forces. System is also highly valued by allies. FONET provides digital communication inside vehicles. It enables to integrate with battle management systems, like TOPAZ. FONET is also widely used in Polish Armed Forces and also in armies of other countries including – on massive scale – in US Armed Forces.

9. GROT Modular Firearms System (MSBS)

GROT is a Modular Weapon System produced by Fabryka Broni "Łucznik" in Radom. GROT assault rifle is easy in handling and exploitation, accurate and ergonomic. It's modular construction enables to configure this weapon accordingly to users needs. GROT may be equipped with a broad range of equipment. MSBS system is available in a version with a folding stock or in bullpup version, in several different calibers.



Photo by DWOT

Until 2020 more than 50 thousand units of MSBSs will be transferred to the Polish Armed Forces. This is the main weapon of the newly formed Territorial Defence Forces.

3.10 APR 120 and APR 155 Precision Guided Artillery Rounds

Precision ammunition APR 120 and APR 155 was developed by Mesko and Telesystem Mesko companies. APR 155 is designed for self-propelled howitzers, APR-120 - for self-propelled mortars Rak. Both systems are guided on the reflected laser ray and provide high precision of hitting a target. Using APR enables to destroy targets with one round. That gives a beneficial cost-effect ratio and lowers the risk of the enemy response.



Laser-guided APR 155 artillery round. Photo by M. Dura

APR 120 ammunition enables to attack with self-propelled mortars even strongly armoured tanks. Along with the precise ammunition laser target designator was also made. It was designed to interact with APR ammunition.