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*‘By carrying out orders
for the benefit of the arms
industry we exert influence on
the potential of Polish defence.*

*Therefore, we are obliged to
preserve the highest standards and
continuously improve our products.’*



We have the pleasure of introducing you to the “Company profile” of the PCO S.A.

For over 40 years PCO S.A. is an important part of the Polish arms industry creating defensive potential of Poland. We are a leading domestic producer of technically advanced optoelectronic equipment for soldiers and other uniform services. Our products are based on night vision, thermal imaging, and laser technologies.

We follow newest trends in the branch and participate in numerous strategic-organisational initiatives. We have significant role in programs of modernization of the Polish Armed Forces, supplying devices for soldiers and combat vehicles. Due to our own research and development infrastructure we build strong position of the domestic defence industry.

Our products are characterised with high quality and their users confirm reliability and innovative character of offered technical solutions. We provide services of our products on every stage of their use, implement constant improvements and widen our offer according to clients’ suggestions.

The “Company profile” contains basic information on the Company and its products. Moreover, the financial situation, research and development plans, human capital as well as future prospects have been presented.

The present document may function as a guide for our clients, business partners, representatives of the defence industry, scientists and state authorities as well as the employees.

Board of the PCO S.A.

*For many years PCO S.A. has constituted
the potential of Polish defence industry,
supporting the safety of soldiers on the battlefield
and increasing safety of our Homeland.*



- About the Company
- Certificates
- Awards and distinctions

About the Company

PCO S.A. was established in 1976 under the name Przemysłowe Centrum Optyki w budowie. In 1994 it was transformed into a state-owned joint-stock company under the name Przemysłowe Centrum Optyki Spółka Akcyjna. PCO S.A. is a joint-stock company operating according to the Commercial Companies Code and the articles of association. Since 21st of October 2014 the Company is a member of Polish Armaments Group (PGZ).

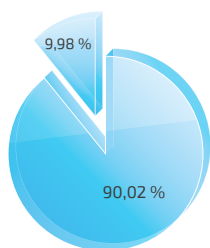
The primary activities of PCO S.A. consist of the research and development as well as implementation activities, production and sale of optoelectronic observation and aiming devices, employing laser, night vision and thermal vision technologies supplied to the army.

The Company's governing bodies are the General Meeting of Shareholders, the Supervisory Board and the Board of Directors.

The members of the Supervisory Board include three employee representatives chosen by secret ballot. The Board serves statutory supervision functions, but simultaneously cooperates with the Board of Directors supporting programs and initiatives crucial to the position and development of the company.

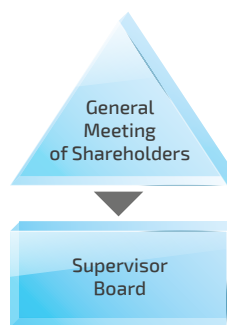
The scope of activities of the Company's governing bodies is stipulated in the Commercial Companies Code, company's articles of association, and the regulations of the Board of Directors and Supervisory Board.

Shareholder structure



9,98% – Employees
90,02% – Polish Armaments Group

Company's governing bodies



Board of Directors



Paweł Glica
President of the Board
Director General



Błażej Borzym
Member of the Board
Financial-Economic Director



Bogumił Wodyński
Member of the Board
Technical Director

Certificates



Over forty years of activity has allowed the Company to achieve a strong position in the market. This position is reflected in the certificates obtained by the Company over the years. The certificates guarantee our Clients and business partners that our products and services are of the highest quality.

The Company has been granted the following concessions and certificates:

Concession of the Ministry of Interior and Administration of the Republic of Poland

The scope of the concession encompasses manufacturing and selling military and police equipment.

NATO Commercial and Government Entity Code

Certificate of NATO Commercial and Government Entity Code NCAGE: 2550H issued by the Military Center for Standardization, Quality and Codification.

Certificate of Management System

The certificate encompasses the following scope of activities: domestic and foreign trade in goods, technologies and services of strategic importance to the security of the State with observance of criteria of the Internal Control System.

Quality Management System Certification ISO 9001:2015, AQAP 2110:2016 and 2210:2015

The quality of our products and services is a crucial factor for the market success of our Company. It depends on the ability to continuously supply products fulfilling the needs and expectations of our customers to an extent that is higher than our competitors. By applying and constantly improving the system compatible with the requirements of ISO 9001:2015, AQAP 2110:2016 and 2210:2015, we strive to increase customer satisfaction, recognizing and fulfilling their requirements and expectations regarding the offered products.

Awards and distinctions

The numerous awards and distinctions achieved by PCO S.A. prove the quality and modernity of its products and services, and its robust and dynamic development.

Traditionally, our products are distinguished with the Defender award, which is granted for the most

innovative technical solutions and special meaning for national safety.

Moreover, the Company has achieved many awards and distinctions from state authorities and institutions, including Ministers and organizations such as the Business Centre Club.

PCO S.A. has been granted the following awards over the last few years:

Defender

Award for innovative technical solutions in national defence equipment. PCO S.A. has received DEFENDER every year for last 10 years. In 2017 for the set of cameras for the "POPRAD" self-propelled anti-aircraft missile system, in 2018 for the set of cameras for the Leopard 2A4 tanks and in 2019 for the NPL-1T.



Laurel of Innovation

In 2019 PCO S.A. has received a commendation in the Laurel of Innovation contest for the aiming-observation devices w GOC-1 and GOD-1 for the fire control systems. Laurel of Innovation is a contest organised by the Polish Federation of Engineering Associations under patronage of the Ministry of Development, Ministry of Infrastructure, Ministry of Agriculture and Rural Development, Ministry of Science and Higher Education and Ministry of Digital Affairs.



Leader of the National Security

The award given to PCO S.A for the MU-3, MU-3M Night Vision Monoculars, PNL-2AD/M Night Vision Goggles, K LW-1 Thermal Imaging Camera, NPL-1T Thermal Binocular and PNL-3M Aviators' Night Vision Goggles as products enabling the implementation of the project of modernising individual soldier equipment and adjusting it to the requirements of a modern battlefield, according to the concepts and standards of NATO. In 2018 PCO has received the award also in "Innovative Company for the Security and Defence" category.



"Orły Wprost"

In 2019 PCO S.A. was awarded with "Orzeł Wprost" title in Leader of Business category. "Orzeł Wprost" is a prestigious prize given by the "Wprost" weekly to companies contributing to development of regional and national economy.



*Approved by the managerial staff,
our mission and vision determine
our strategy and action and
help us achieve common goals
and inspire us in all our undertakings.*



- Mission and vision
- Values
- Ethics in PCO S.A.
- Social Responsibility

Mission and vision

Mission

To fulfil needs and expectations of the customers by supplying on time modern, reliable and safe optoelectronic devices providing security.

Vision

To be the leading supplier of optoelectronic solutions for Polish Armed Forces and significant on foreign markets.

Motto

Innovations for the safety of the population.

Values

Our brand and the values attached to it distinguish PCO S.A. from its competitors. We pursue these values on a day-to-day basis and we are proud of

them. Our values constitute a solid foundation on which the future of our Company can be based. We are governed by the following values:

Client orientation

Development and innovation

Professionalism

Responsibility

Cooperation and exchange of knowledge

Commitment

Responsibility, reliability and loyalty

Ethics in PCO S.A.

PCO S.A., as a defence industry company, is obliged to conduct its business activity in an ethical and responsible way pursuant to the established rules and norms as well as the binding law. These rules can be found in the Code of Ethics of our Company. On the 4th of July it was updated by the Disposition 14/2018 of the President of the Board, Director General of PCO S.A.

The Code includes a detailed description of the most important values and rules which company employees follow as well as the manner of conduct of PCO S.A. in relation to areas of high importance in the defence industry. The rules described in the Code result from the effective legal regulations including work regulations binding in PCO S.A.

On the 3rd of January 2017 through Disposition 1/2017 of the President of the Board, Director Gen-

eral of PCO S.A. Code of Ethics of PGZ S.A. was introduced in PCO.

This Code of Ethics is an internal document regulating rules of ethical activities of employees and external partners. Code mentions standards that must be adhered to in the Group for example in employment, avoiding conflicts of interests, and contacts among employees. It is in forces consecutively with Code of Ethics of PCO S.A.

We rely on our Codes of Ethics, striving to be a model, reliable and honest partner, and employer. These documents constitute a guide of conduct for all our employees and provides a basis for our everyday operations in a constantly changing environment.

The content of the Codes is available on the PCO S.A. website (www.pcosa.com.pl).



Social Responsibility

PCO S.A. is a socially responsible company giving priority to building partnership with clients, suppliers, partners, employees and local community. PCO S.A. actively supports development of science and entrepreneurship, cooperating with universities, scientific institutes and supporting numerous social and charity initiatives.

Values of the socially responsible business are implemented by the following actions:

Partnership with clients and suppliers.

According our mission and vision we try to fulfil expectations and requirements of clients by supplying on time modern and reliable optoelectronic devices increasing safety. Also in contacts with suppliers and business partners we respect values of partnership and honesty.

Creating friendly workplace.

Employees are the biggest value for the Company and base of its success. That is why we care for our employees and support their further development and training.

Cooperating with research and development circles.

During research and development activities Company actively cooperates with technical universities and research-development centres, including Institute of Optoelectronics of the Military University of Technology, Air Force Institute of Technology, Military Institute of Armament Technology and Military Institute of Armour and Vehicles Technology.

Cooperation with high schools and universities.

PCO S.A. cooperates with technical universities and high schools what includes student visits in the Company, lectures, practices and probations, opinions on educational level and education programmes and participation in trade fairs organized by universities. We cooperate ia. with Military University of Technology, Technical University Warsaw, Academy of National Defence and Military University of Aviation in Dęblin.

We support academic activities such as:

- Warsaw Days of Technology – organized by the Warsaw University of Technology, Warsaw branch of the Engineers and Technicians Association and Warsaw Council of the Polish Federation of Engineering Associations;
- International Day of Light – organized by the Polish Photonics Association;
- Engineers' Work Fair – organized by the Warsaw University of Technology;
- JOBICON Fair – organized by pracuj.pl;
- internships for pupils and students;
- apprenticeships for students;
- scholarships;
- scientific groups and their projects.

Participating in patriotic initiatives.

We highly value propagating of the patriotic values and traditions. We support events commemorating important anniversaries.

Supporting balanced development and innovations.

Initiatives of the Company fit into EU policy towards the most modern areas of the European economy. Establishment of the Polish Technological Platform on Photonics was in accordance with Europe 2020 Strategy. Photonics is nowadays one of the key technologies in the EU.

Supporting charity and public benefit organizations.

Company participates in charity actions such as "Szlachetna Paczka" and gives material aid to the public benefit organizations. Due to dedication of employees each year material help such as goods for the household and toys for children, for the families in need is being prepared.

Supporting soldiers wounded during military missions and veterans.

Company supports yearly Charity Ball organized by the Association of Wounded During Foreign Missions and 12th Mechanized Brigade from Szczecin, and Charity Ball of the Allied with GROM Foundation.

Supporting employees' initiatives.

Company supports treatment and rehabilitation of employees' children that are wards of Foundations, as well as interesting projects/initiatives of the employees.



*PCO S.A. enjoys a stable financial situation.
Our business results constitute
the effect engagement
and hard work by our Employees.*



- Financial analysis
- Sales revenues

Financial report

PCO S.A. is enjoying a good financial situation. For several years the Company achieves net profit. In the recent year the financial surplus was high.

The beneficial financial situation of the Company creates opportunities for the growth of its value, creates image of a good contractor and a solid partner of the Polish Armed Forces. Moreover it enables prompt fulfilment of contracts, and contributes to the image of the company as a credible partner in settlements with suppliers and contractors.

The strategic goal of PCO S.A. is to participate in all operational programs being part of the Plan of Technical Mobilisation of the Polish Armed Forces, as a supplier of optoelectronic devices and systems, providing defence of the basic interests of the state security.

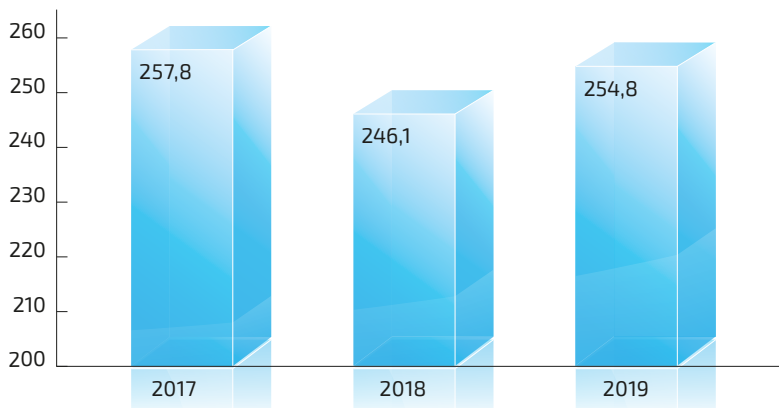
Sales of the individual equipment for soldiers has the key significance for the incomes of the

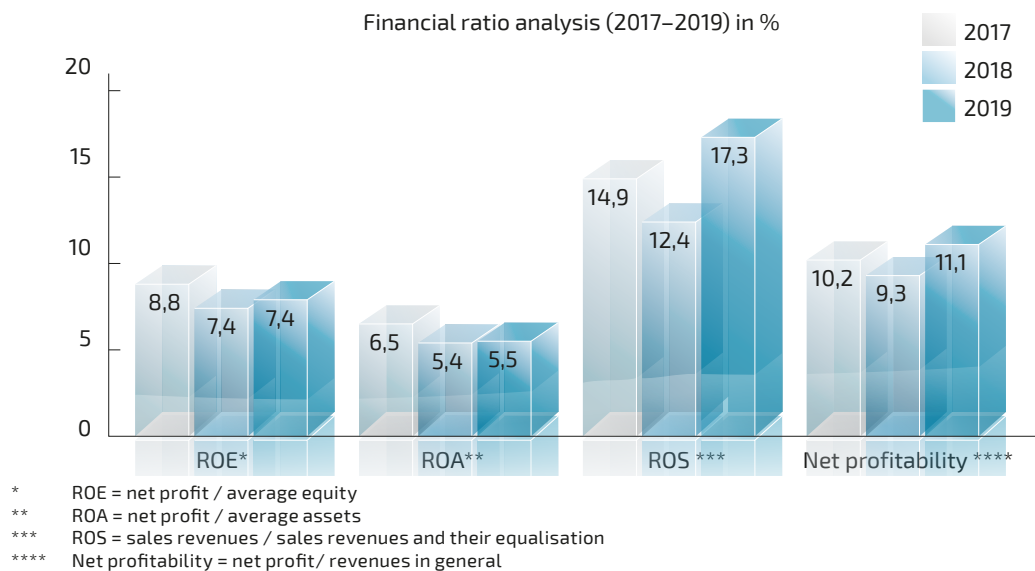
Company. In frames of the products for combat platforms the priority of the PCO S.A. is to realise contracts on supply of the optoelectronic products for the Polish Armed Forces as a part of the operational programs, mainly for the Leopard2PL tanks and unmanned turrets for combat vehicles (program of modernization of the armoured and mechanized forces), KRAB self-propelled howitzers and RAK self-propelled mortars (program of modernization of the missile forces and the artillery), armoured personnel carriers (Rosomak APC program), light reconnaissance vehicles (patrol and reconnaissance program), PILICA, POPRAD and PIORUN anti-aircraft systems (air-defence programs) and development of the optoelectronic devices for military vehicles. Other priorities include continuation of works on TYTAN Advanced Individual Battle System and participation in scientific-research projects in state's defence.

Financial performance 2017-2019 in mln PL

Financial performance in mln	2017	2018	2019
Net revenue from sales	257,8	246,1	254,8
Operating expenses	219,4	215,7	210,7
Gross profit on sales	38,4	30,4	44,1
Operating profit	30,3	25,4	34,6
Profit on business activities	33,8	28,4	35,0
Net profit	27,5	24,2	28,7

Sales revenues (2017-2019) in mln PLN





Achieved financial ratios mean that company manages its assets and capital effectively and financial situation of PCO S.A. is stable. Debt ratio is currently kept on low and stable level.

Debt ratio (2017 – 2019) in %

Year	Debt ratio
2017	26,4
2018	27,8
2019	30,1

Ratios are on recommended level. They show company's ability to meet its obligations.

Liquidity ratios 2017 – 2019

2017			2018			2019		
I grade liquidity ratio	II grade liquidity ratio	III grade liquidity ratio	I grade liquidity ratio	II grade liquidity ratio	III grade liquidity ratio	I grade liquidity ratio	II grade liquidity ratio	III grade liquidity ratio
0,7	1,2	2,4	0,0	0,7	2,2	0,9	1,3	2,1

*Our products combine modernity,
high quality and reliability,
and are adjusted to the Clients' needs.*



- Individual equipment
- Equipment for combat platforms
- Consortium's offer

* June 2020

Individual equipment

NIGHTVISION GOGGLES



MU-3M Night Vision Monocular is currently one of the lightest night vision devices in the world. It weighs 265g without batteries.

Thanks to modern aspherical optics the device is also much shorter than the previously produced monocular – the overall length of it is 97 mm. The MU-3M night vision device can work with an infrared attachment ClipIR, thus allowing observation of scenery in fusion mode: night vision and thermal modes blended together. It is possible to combine two MU-3M devices and use them as night vision goggles for drivers. Monocular may be mounted on any kind of helmet or directly on head with use of dedicated harness. MU-3M cooperates with CK-6 holographic and colimatoric sight creating night vision aiming system.



MU-3ADM Miniature Goggles is a modern passive night vision device. It is characterised with light construction, reliability and durability in field conditions together with high parameters of detection and identification. After use of 3 or 5× magnifying device goggles may be used as a night vision binoculars.



PNL-2ADM Night Vision Goggles are light night vision instrument designed for performing tasks at night. PNL-2ADM is a noctovisor with two independent optical channels. PNL-2ADM goggles enable to observe binocularly and allow keeping natural shapes and sizes of the observed scenery. Night vision goggles are compatible with majority of currently used helmets. The battery box is a separate element fixed in the back side of the helmet, that is why the weight is evenly distributed keeping at the same time low weight of the structure. The goggles have built-in IR illuminator.



NPL-2 Night Vision Goggles are a small and lightweight night vision device designed for terrain observation when the visibility is limited and at night. The device is equipped with an additional source of infrared illumination, which enables operation in closed rooms.

NPL-2 Goggles may be used as a hand-held device or mounted on any type of helmet or directly on head with a harness. When using a magnifying clip-on goggles NPL-2 can be used as a manual observation instrument at greater distances.



PNL-4 Aviator's Night Vision Goggles are the newest night vision device designed for terrain observation and target detection during night flights performed by helicopter pilots and crew.

The design of the goggles is based on the newest INTENS Image Intensifier. Due to the modern design solution, the goggles are light and can be perfectly adjusted to the head and the individual characteristics of the pilot's sight. Goggles provide comfortable stereoscopic observation with preservation of the natural shapes and sizes of the observed scenery. Goggles have a special safety solution.



PNL-3M Aviator's Night Vision Goggles are high performance, ultra-light, passive stereoscopic night vision goggles for helicopter crew members. These goggles gained the European Aviation Safety Agency (EASA) certification enabling their use in civilian aviation.

PNL-3M goggles enable the rotary-wing aircraft pilots to perform air operations in a low light up to severe night conditions without any source of artificial light. The PNL-3M goggles can be powered from one of two alternative power supply sources - from the aircraft's on-board power supply network or from the battery pack that comprises of two independent AA size battery compartments. When goggles are tilted upwards and folded over the helmet their image amplifiers are disconnected from the power supply source.

NIGHT VISION AND THERMAL BINOCULARS



NPL-1M Night Vision Binocular is a light night vision device designed for terrain observation in limited visibility conditions and at night at longer distances.



NPL-1T Thermal Binocular allows observation during day and night and in limited visibility conditions.

New constructional solutions and advanced methods of thermal image processing allowed for obtaining exceptional quality of thermal image while reducing weight and power consumption. Thermal image is presented on two OLED displays or can be sent via digital video output to an external helmet-mounted display or a monitor. NPL-1T allows to store pictures in internal memory with a possibility to copy the images to a computer. Basic power supply are 4xAA batteries but binoculars can be

powered from an external source of power in a wide range of voltages. NPL-1T is designed to work with the military TSO-1 receiver, allowing to display time and geographical coordinates on the screen.

Furthermore NPL-1T is equipped allow for an approximate measurement of the distance to the target with a height of at least 1.75 m.

SIGHTS



SCT Thermal Weapon Sight is designed for observation and firing from small arms during day and night, in normal conditions and during limited visibility, and in different climatic and weather conditions.

SCT is equipped with a handle for reliable and repeatable installation of the weapon sight on the rail, according to the standard STANAG4694, and on the rail according to the standard MIL-STD-1913 (Picatinny).



PCS-5/PCS-5M Passive Night Vision Sight is a lightweight telescopic sight which is ideal to use on portable weapons. Sight is used for observation and firing firearms in limited light and varying weather conditions.

Sight PCS-5 is appreciated by users due to: its robust and precise design, as well as long range night vision. Night vision sight PCS-5 can be used on various types of weapons and antitank grenade launchers with side mounting system - a „dovetail”. PCS-5M version is designed to be used on weapons with universal rail MIL-STD-1913 (Picatinny).



CKW BAZALT Day-Night Aiming Sight is designed for individual and team weapon - rifle, machine gun, sniper rifle, grenade launchers. The device enables destruction of various single uncovered and hidden targets in good and limited visibility at night.

CKW gives ability to make shooting corrections both elevation and azimuth when changing aiming range in the act of firing. It may be easily mounted and un-mounted without disturbing fixed aiming axis.



DCM-1 Modular Day Sight is a light set of day sights designed for firing at short and medium distances. DCM-1 was designed for weapons used in Polish Future Soldier Program - MSBS -5.56 rifles and assault rifles Beryl. DCM-1 comprises of a LDK-4 rifle scope and MK-1 - a miniature collimator of open type installed on it.

The LDK-4 sight may be used for ballistics of a particular type of weapon by using appropriate reticle.

The LDK-4 rifle scope is designed to work with thermal imaging sight and night vision instruments (e.g. MU-3/MU-3M monocular) installed in front of the sight that enable using it at night or under reduced visibility conditions.

Equipment for combat platforms

NIGHT VISION PERISCOPES



PNK 55/72 Night Vision Driver's Periscope is a dual eye-piece night observation device designed for armoured fighting vehicles. It enables the driver to see the road or terrain features in night-time.



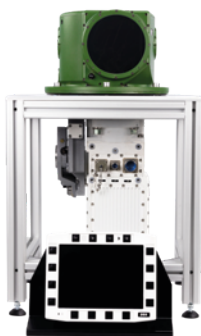
POD Day-Night Commander's Observation Device is a binocular day and night observation device designed for different types of armoured vehicles (tanks, infantry fighting vehicles, armoured recovery vehicles).

POD is used in T-55 and T-72 tanks as well as in special vehicles built on their chassis. POD may be used also in BWP-1, BWP-2 and other infantry fighting vehicles. Due to its size the device is applicable to most of the post-Soviet fighting vehicles and tanks providing at the same time solutions based on the newest technology.



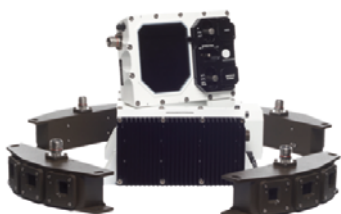
MODERNISATION SETS FOR ARMoured VEHICLES

Modification Set for the Thermal Imaging Camera (ZMKT), with its main element - K LW1 thermal imaging camera, is designed for PT-91 tanks with SKO1T (DRAWAT) fire control system. ZMKT is a set of devices enabling replacement of TES thermal imaging camera with K LW-1 thermal imaging camera.



PCT-72 Periscopic Thermal Vision Sight may be used in all tanks of the T-72 family in place of previously used TPN-1-23-11 sight. In this set additional armoured cover of the periscope fulfilling requirements of 2 wg. resistance STANAG norm, may be added.

LASER WARNING SYSTEMS



SSP-1 OBRA-3 Laser Warning System is destined for detection of vehicles and military objects' radiation from impulse range-finders or laser illuminators. The system can fire smoke-screen towards the direction of detected laser radiation. System can update the direction of detected radiation, taking into consideration the movement of the vehicle or its turret, can eliminate indications from the reflected radiation and gives possibility to communicate with fire control system or other vehicle systems.

System provides optical and acoustic signalization of the laser radiation, that informs about the type of the radiating device, and time from the start of the radiation. System is adapted to fire smoke grenades in various modes: hand-operated, semi-automatic and automatic.

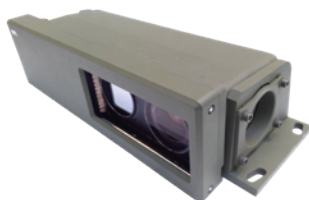
Depending from the placement of the elements of the system it may be operated by any member of the crew. Use of the additional display pulpit enables observation of the system's readings by the other crew member.

NIGHT VISION, THERMAL AND DAY CAMERAS

KDN-1 Observation Camera is a day and night observation device designed for any wheeled or tracked vehicles.



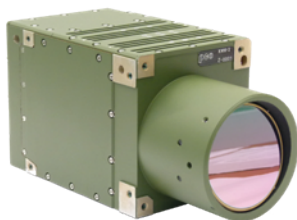
The KDN-1 camera has a built in system of light level measurement, which protects night channel image intensifier tube against accidental turning it on during the day. The camera communicates with any analogue monitor in CCIR monochrome standard.



KDN-1T Observation Camera is a device combining day and thermal imaging sight and is destined for use in various military vehicles, including Leopard 2PL tanks.



KLW-1 Thermal Camera is designed for the fire control and observation systems. It is a thermal imaging cooled camera operating in 8 – 12 μm – MCT detector of III generation, screen resolution 640 \times 512.

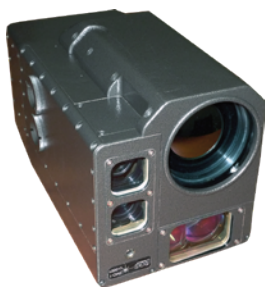


KMW-3 Thermal Camera is a camera with cooled detector operating in 3nm – 5nm spectral range is designed to be used in firing systems of the anti-aircraft sets.

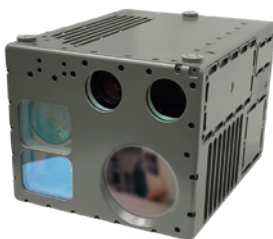


KTVD-1M Television Camera is designed for detection and tracking of planes, helicopters and land objects in day conditions. The camera can be mounted on a self-propelled wheeled and tracked vehicles. KTVD-1M TV camera is designed to be used in a tracking and aiming optoelectronic head of a self-propelled anti-aircraft missile system of very short range POPRAD.

INTEGRATED OPTOELECTRONIC MODULES



ZMO-1 Integrated Optoelectronic Module is intended to be used in remote-controlled weapon modules and stationary observation systems. The module enables the detection, recognition, identification and distance measurement to the detected target.



ZMO-3 Integrated Optoelectronic Module is destined for the remotely-controlled defence module (ZSMU). It enables observation, identification and measuring distance from the target. Steering of the module's function is made with multi-function pulpits used in the system.

OPTOELECTRONIC HEADS FOR TURRETS AND ANTI-AIRCRAFT SYSTEMS



GOS-1 Optoelectronic Head for Observation and Tracking is a technically advanced product with a number of features enabling easy integration with weapon platforms (vehicles; armament modules and anti-aircraft sets). Its design allows using it on different types of land vehicles designed for detection, recognition, identification of ground and air targets. The head is an element of SKO 23 mm anti-aircraft rocket and artillery set ZUR-23-2SP of „PILICA” system.



GOD-1 Stabilized Commander Optoelectronic Head for Observation and Aiming is a technically advanced product with a number of features enabling easy integration with weapon platforms (vehicles; armament modules, anti-aircraft sets). Its design allows using it on different types of land vehicles designed for detection, recognition, identification of ground and air targets.



GOC-1 NIKE Stabilized Observation and Aiming Optoelectronic System is dedicated for operation in detection, observation, tracking and targeting systems for ground and air targets in day and night conditions. The head is composed of an integrated opto-electronic module located on the two-axis stabilized assembly platform.

OMNIDIRECTIONAL OBSERVATION SYSTEM



SOD Omnidirectional Observation System is intended for wide-angle observation of near vicinity of the vehicle. Allows day and night observation, as well as in limited visibility conditions.

The omnidirectional observation system provides the commander and the armored vehicle crew with possibility to observe the entire vehicle surroundings in the close vicinity, using television and thermal imaging mode. Information from SOD modules is displayed on a touchscreen. Single television-thermal imaging module includes 2 television circuits and 2 thermal imaging circuits. The system can display images from four modules as a panorama, in modular manner - selected from one of four modules, in directional manner - selected two modules out of four (front, back, right, left).

Offer as a Consortium



Future Soldier Program has been developed by the consortium for science and industry consisting of defence industry companies and military institutes of science and research. The role of the leader of the consortium is currently taken by PCO S.A. The main aim of the Future Soldier program is to equip a soldier to meet the requirements of the modern battlefield.

The program is of great importance to the Polish economy. Technologies developed increase safety, survivability and effectiveness of soldiers, but also enhance the safety of citizens.

*PCO S.A. is a leader of one of the strategic programs of the MoD,
having crucial role for the State's security.*



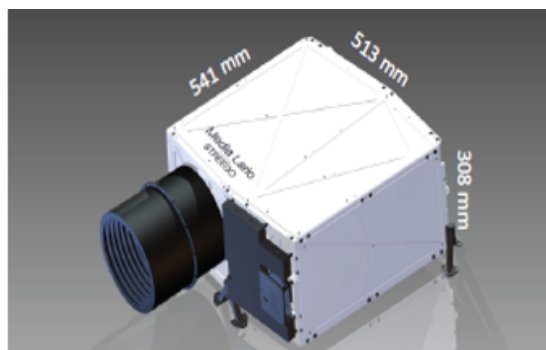
CIROP project

The CIROP project is implemented under the ESA's Polish Industry Incentive Scheme helping to develop Polish companies of the space sector.

The contract on realisation of the project was signed in December 2017 with the ESA. Project was scheduled for six months and is fully financed by the ESA. The finalisation of the project is planned for the end of February 2021.

The aim of the project is to investigate possible ways of and develop a conceptual implementation of the additional infrared observation channel for the two Earth observation systems owned by an Italian company and a Dutch company.

The necessary works include developing interfaces between the systems that would lead to their integration and, consequently, improved use of energy by the satellite. Due to implementation of additional analysis channel in infrared system gains ability for observing areas covered by clouds and reduce



Streego. Source: <http://www.media-lario.com/>

the volume of any redundant information transmitted. Also thanks to this we are able to dynamically choose areas that are not covered by clouds and gain valuable information.

After completing the conceptual phase and submitting the results to the European Space Agency, PCO will seek to enter the second phase which involves developing a technology demonstration.

HANEDA – Holographic Near-Eye Display

In December 2017 funding agreement for realization of the “HANEDA - Holographic Near-Eye Display” project number PO-IR.04.04.00-00-3DD9/16-00, was signed with the Foundation for Polish Science. Project is being realised according to schedule. Its finalisation is planned for February 2021.

The HANEDA project received funding under the Team Tech programme organised by the Foundation for Polish Science (FNP) from the European Regional Development Fund under the 2014–2020 Smart Growth Operational Programme (SG OP), Priority Axis IV: Increasing the research potential, Measure 4.4: Increasing the human potential in R&D sector.

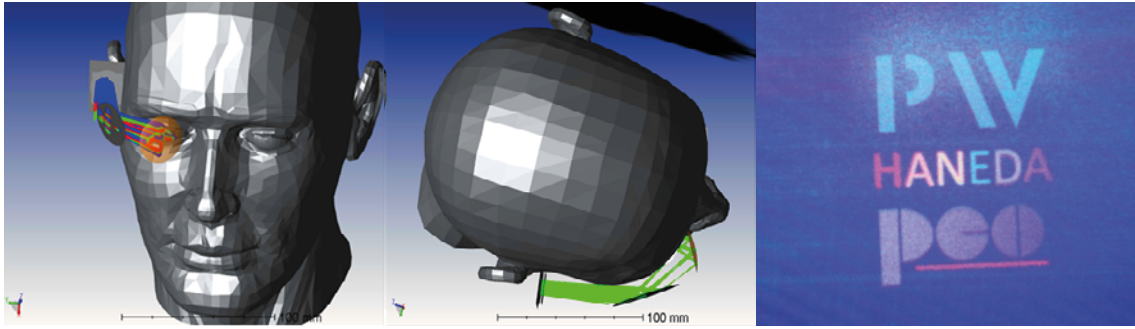
Project is realised by the Consortium of PCO S.A. and the Warsaw University of Technology in cooperation with the foreign research partner – Chiba University from Japan.

The aim of the HANEDA project is to prepare a prototype of near-eye holographic displays –



(RGB) that enable displaying signs seen by the operator with simultaneous viewing of real and virtual images without a need to change the visual field and focal distance, on 0,5–300 m distance.

The long-term objective is to obtain a range of holographic goggle products for observation or remote control systems with dual applications. This technology will be the base for development of observation and remote control systems for the operators of machines and drones.



The project involves the recruitment and training for PCO S.A. of the engineering and scientific staff with the necessary expertise in the area of holographic design and production.

The main task realized by the PCO is project and construction of the miniaturized version of the near-eye holographic display in form of portable on head device.

The task is realised with scientific support of the Physics Department of the Warsaw University of

Technology, where the laboratory model of the device was created.

Project is realised with the international cooperation of Japanese scientists working on software algorithms for the real time display of holograms

The innovative element of the program is an optional use of goggles for diagnostics and sight rehabilitation (for example in glaucoma). Currently there are no such devices available on the market despite the huge need.

PROBA-3

PROBA-3 is a project commissioned by the European Space Agency (ESA) and implemented under the agreement with the Centre Spatial de Liège – Université de Liège (CSL).

The agreement was signed in November 2014. and later annexed in August 2017. Finalisation of the project is planned for the end of 2020.

The aim of the project is to prove formation flying technologies by demonstrating that two satellites can move as one single object. The paired satellites will form together a coronagraph in a large-scale science experiment to study the Sun's corona, with one of them covering the solar disk so that the other can observe the solar corona. There must be a relative movement between the satellites orbiting around the Earth. The experience gained during the project may be used for further ESA projects based on flight in synchronic formation.

Within the project, PCO is responsible for the mechanical parts of the coronagraph for the PRO-

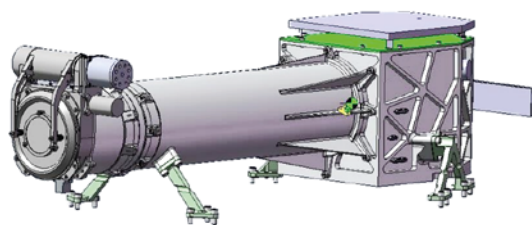


źródło: www.esa.int

BA-3 satellite called Baffle and Structure system. Production of these parts is based on project developed by CSL. Due to variable operating conditions, the development of an appropriate technology and the construction of a device case of the coronagraph is a major challenge which must be with outstanding precision.

PCO is required to provide relevant technical documentation and ready parts of the device.

Currently PCO prepared all mechanical elements for the EQM phase. Currently we are at the final of the FM phase. Measurements accepted by the CSL confirmed that PCO possess adequate technologies and competences enabling production of elements for the space implementations – made of both special aluminum alloys and titanium.



Polish Future Soldier



PCO S.A. also offers system solutions including the equipment for future soldiers.

The Future Soldier program is carried out by the scientific-industrial consortium, whose members are defence industry companies, military research science institutes, and the Military University of Technology.

PCO S.A. is currently a leader of the consortium. The goal of the company consists of the coordination of research and development activities, integration of products into systems, and the search for the application of R&D activities.

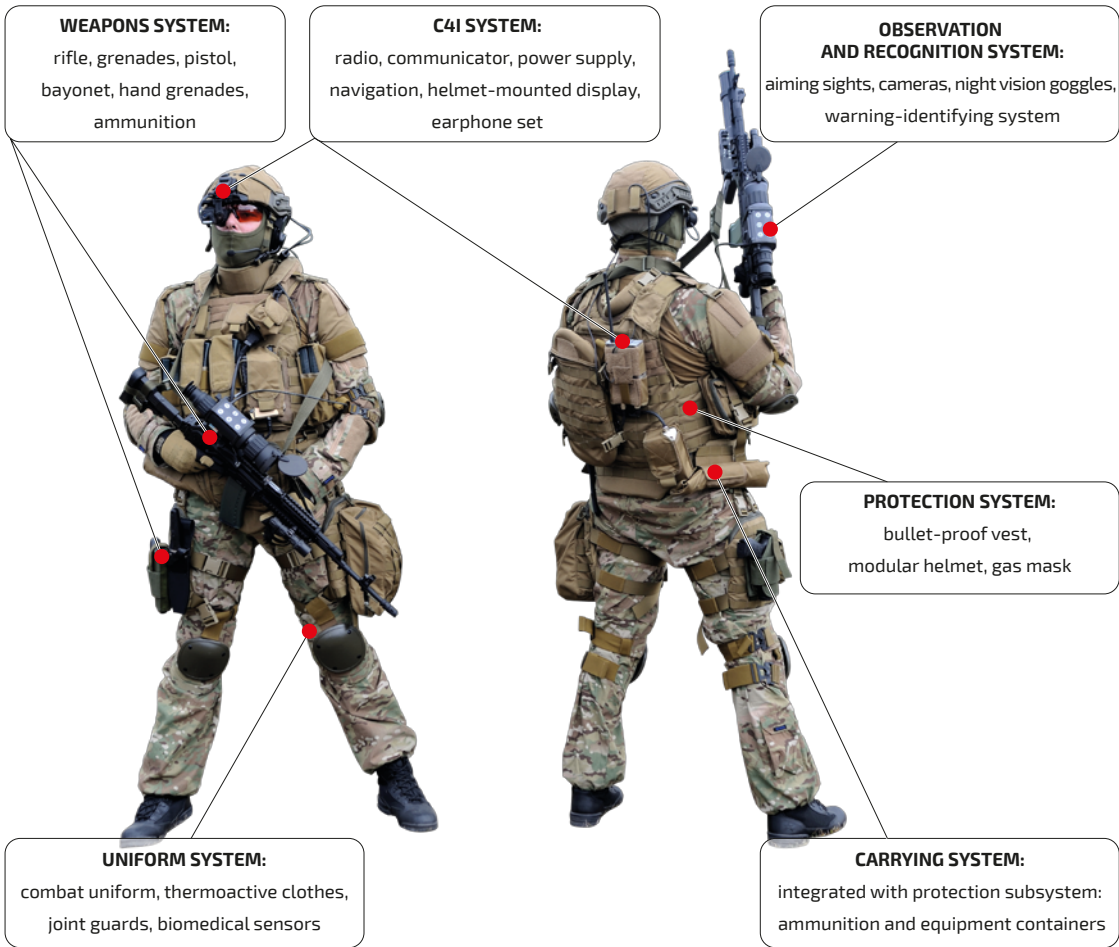
Moreover, the promotion of the program belongs to the leader of the consortium.

The main goal of the program is to supply soldiers with equipment fulfilling the requirements of the contemporary battlefield.

Guidelines of the system:

- modular solutions;
- ergonomics and simplicity of structure;
- integration of elements into system;
- immediate readiness;
- interdisciplinarity.

The Future Soldier program is of vital importance to the Polish economy. The technologies developed within the program have a huge influence on the effectiveness and safety of soldiers on the battlefield and the safety of citizens.



The offer of PCO S.A. includes elements for future soldier equipment: optoelectronic recognition devices (night vision devices, thermal cameras, laser

rangefinders and laser radiation detectors) and aiming systems (night vision, thermovision and collimator sights).

*Employees are the greatest value for the Company
and they influence its achievements.*

*High qualifications and strong motivation of employees
constitute the fundamental condition for the Company's success.*



- Employment
- Staff recruitment

PCO S.A.'s strategic objectives for human capital management

Ensuring that Company's Staff and employees are able to meet its strategic objectives is one of the Company's Board's top priorities in HR policies.

This is achieved by increasing work efficiency, recruiting new Staff, developing and sustaining cooperation and knowledge-sharing processes.

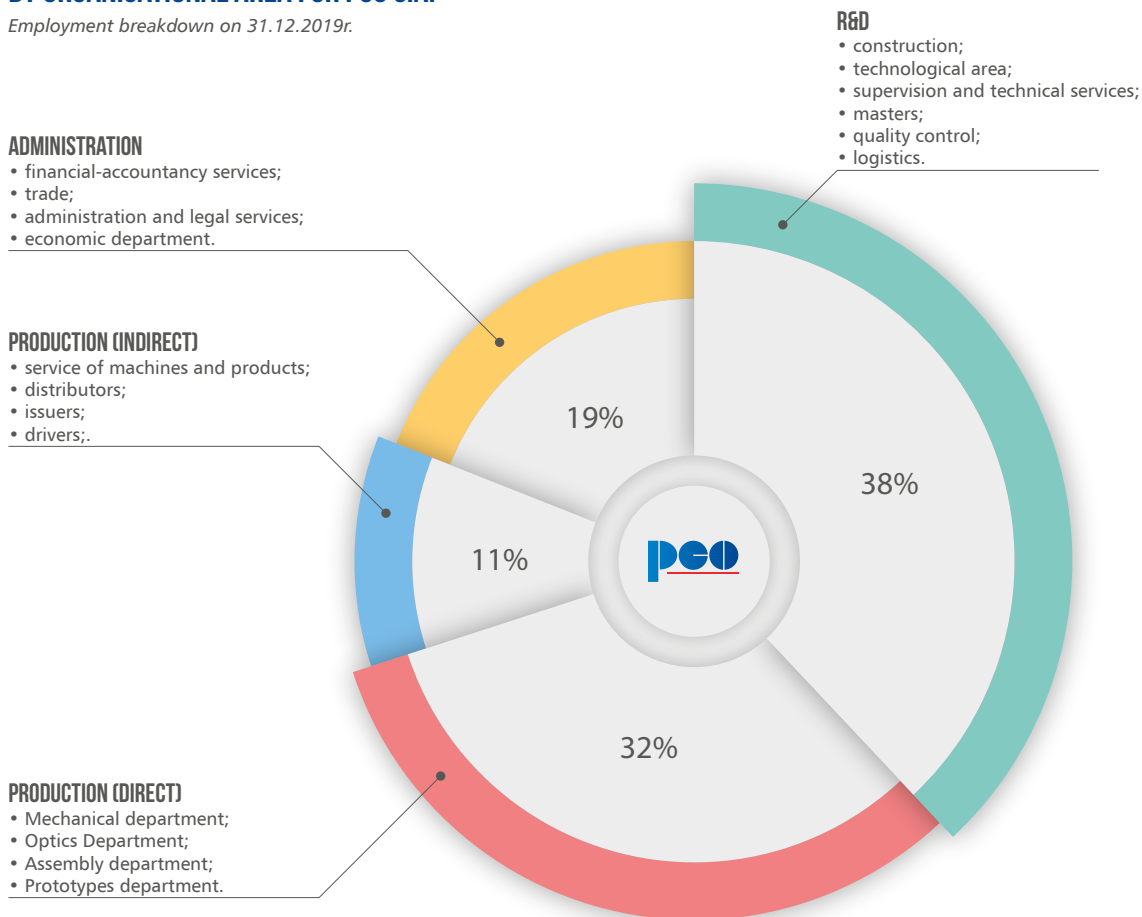
Employment

According to data from 31st of December 2019, PCO S.A. employs 629 workers. Most of them are employed in technical department on technical (38%) and on production related posts (32%). The smallest number is employed in the indirect production (11%). Based on the analysis of the age and

employment structure it is estimated that in next years current proportions among the employees will be kept, and the age gap avoided during the next 5 year period, and tested and adopted procedures of employment and rising professional competence secured from the competence gap.

EMPLOYMENT BREAKDOWN [%] BY ORGANISATIONAL AREA FOR PCO S.A.

Employment breakdown on 31.12.2019r.



* On 6th of March 2017

Staff recruitment



The Company conducts Student Programme aimed at recruiting young employees by cooperation with technical universities and professional schools. Internships, graduate apprenticeships, and possibility to realise dissertations are organised in frames of the Programme.

Sumer internships are organised for students of technical universities – i.a. Warsaw University of Technology, Military University of Technology, and War Studies University. During the school year graduate apprenticeships for students of professional schools we cooperate with (Mechanical School No7 in the Jan Kilinski School Complex No31, Professional School No65, Mechatronic Professional School No1 in the High School Complex No1, Communications Professional School in Agnieszka Osiecka School Complex 37 in Warsaw.

Yearly efficient apprenticeships are attended by 15–20 pupils in technical, quality management and IT departments.

Internships are organised at technical department for students and graduates of technical universities and also at production department for pupils of the Mechatronic Professional School No1. Yearly up to 12 internships are organised in the technical department. Students have an opportunity to realise their master's and engineer's dissertations with subjects proposed by the PCO. Yearly 2–3 dissertations are prepared.

Additionally Company, in frames of cooperation with School Complex No31 provides dual teaching for pupils from the technician-optician and mechanic-optic classes of the Mechanical School No7. Classes are held thrice a week at the premises of PCO.

We also cooperate with a Post-Graduate Optical School teaching optic-mechanic profession.

Since 2018 we have established cooperation with Communications Professional School in Agnieszka Osiecka School Complex 37 in Warsaw, which provides classes of optoelectronics taught by the delegated employee of the PCO, and with the High and Professional Schools Complex No1. In frames of this cooperation the Company will realise professional specifications for up to 5 pupils at the production department, and opportunity to establish patronage groups for pupils interested in apprenticeships, internship, gaining additional abilities in their professional specialisation and work after graduation.

Activities of the Student Programme are aimed at choosing future employees, who previously finished internships, and apprenticeships to receive good opinion and offer of cooperation, to work at the Company

In frames of activities to recruit new Staff PCO for years participates in work fairs organised by the technical universities.

PCO S.A.

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