

Slovenian Defence Products



Ministry of Defence
Republic of Slovenia

www.mors.si



AN INDUSTRIAL TRADITION, QUALITY AND INNOVATION

Slovenia has a long industrial tradition. An export orientation, investments in new technologies and the implementation of international standards have all shaped Slovenian industry in the last few decades. The country's main export markets are the EU, South-East Europe and other world markets.

The production of military weapons and equipment is part of a tradition lasting several hundred years in the territory of Slovenia. The well-renowned Slovenian precision and craftsmanship are reflected in Slovenian defence products that are distinguished by the inclusion of their own know-how, quality, innovation, compliance with international standards and optimal performance-to-cost ratio. This industrial tradition, quality and innovation are built into all of our products and services.

Since joining NATO in 2004, interoperability and compliance with NATO standards have become the guiding principle of the development of new defence production programs in Slovenia. The cooperation of enterprises with research institutes and Slovenian universities has also expanded significantly.

The Slovenian defence industry supplies the following wide range of products and services:

- Optoelectronic equipment
- Fire control systems
- Light armored vehicles, special vehicles and their parts
- Personal equipment for soldiers
- Telecommunications equipment
- Simulation and training equipment
- Information technologies
- Logistical equipment
- Parts for heavy weapons
- Parts and components for machines
- Special steels
- R&D and new technologies

Certain legal provisions bind foreign suppliers to enter into an agreement on industrial participation involving supplies to the Ministry of Defence of Slovenia. The Government of Slovenia has issued »Directives for Offset Programs« that defines the policy concerning offsets in Slovenia. The amount of the offset obligation is, as a rule, determined as 100% of the contract value. Bidders are requested to submit offset programs for supplies exceeding €400,000.

In Slovenia trading in defence equipment is regulated by the Law on Defence and other legal acts requiring the producers of military weapons and equipment to become registered with the Ministry of Defence of the Republic of Slovenia. There are several ways potential customers can contact the Slovenian producers of defence equipment, including direct contact with individual companies.

This publication was prepared by the Slovenian Defence Cluster in cooperation with the Chamber of Commerce and Industry of Slovenia and the Ministry of Defence of Slovenia. It represents Slovenian companies which provide high quality products and services in the areas of defence, security and protection.

You can obtain more information about the Slovenian defence industry from:

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34	IZOP D.O.O. Topniška ulica 29 SI-1000 Ljubljana	T: +386 1 43 79 472 F: +386 1 43 79 473 E: info@izop.si W: www.izop.si
35	LOGON D.O.O. Tehnološki park 24 SI-1000 Ljubljana	T: +386 1 565 50 68 F: +386 1 565 50 69 E: info@logon.si W: www.logon.si
37	PRIMAT TOVARNA KOVINSKE OPREME D.D. Industrijska ulica 22 SI-2000 Maribor	T: +386 2 25 07 610 F: +386 2 25 22 689 E: info@primat.si W: www.primat.si
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ACRONI, d.o.o. is a producer of flat rolled stainless, electrical, structural and special steel. We produce hot and cold rolled coils, heavy plates and cold formed profiles.

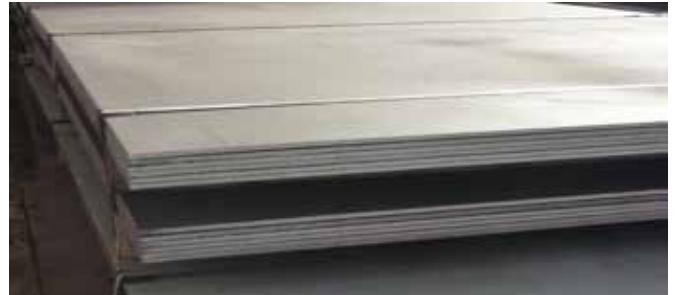
Acroni is part of the holding SIJ d.d. - SLOVENIAN STEEL GROUP. The group is comprised of 15 companies whose products with high added value are appreciated at home as well as all around the world, where they export more than 70% of their products.



Acroni is the largest company in SIJ Group and also the only producer of flat-rolled steel products in Slovenia. Steelmaking has a rich tradition in our region. Iron making developed hundreds of years ago, already in the 14th century. The invention of ferromanganese production in 19th century gave the company a pioneer place in the history of iron. Today, we are a technologically advanced company, where modern steel equipment enables production of the finest steel.

Investment activities of production process modernisation and improving quality are ongoing processes in Acroni. We are focusing our production on special niche products, such as quarto stainless plates, quenched and tempered plates and armour plates. Armour steel is used in different applications:

- military armoured vehicles and equipment,
- shooting gallery devices,
- security vans and cars,
- doors and walls,
- money exchange offices and
- bank counters.



PROTAC 500 - PROTECTION PLATE

Chemical Composition

Plate Thickness s [mm]	C max %	Si max %	Mn max %	S max %	P max %	Cr max %	Ni max %	Mo max %	B max %
8-25	0.30	0.5	1.1	0.002	0.011	1.1	1.1	0.7	0.005

Hardness HB
470 – 540

Tensile Properties

EN 10002-1

Minimum values for 13 mm plate thickness

Yield strength, R _e [MPa]	Tensile strength, R _m [MPa]	Elongation, A ₅ %
1400	1800	10

Impact Properties

EN 10045-1

Minimum values for 13 mm plate thickness

Test temperature [°C]	Impact energy Charpy – V, transverse [J]
-40	30

PROTAC 550 - PROTECTION PLATE

Chemical Composition

Plate Thickness s [mm]	C max %	Si max %	Mn max %	S max %	P max %	Cr max %	Ni max %	Mo max %	B max %
8-25	0.37	0.5	1.1	0.002	0.011	1.1	1.1	0.7	0.005

Hardness HB
540 – 580

Tensile Properties

EN 10002-1

Minimum values for 10mm plate thickness

Yield strength, R _e [MPa]	Tensile strength, R _m [MPa]	Elongation, A ₅ %
1550	2000	10

Impact Properties

EN 10045-1

Minimum values for 10mm plate thickness

Test temperature [°C]	Impact energy Charpy – V, transverse [J]
-40	25



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We at Alpina stay true to the old shoemaker's saying that it is the foot that determines which way and how far one can walk. This is particularly true in the Alpine environment, where we have been putting our skills to the test for the past sixty years. We continue to devote all our shoemaking passion to the features such as comfort, durability and flexibility.

Our wealth of experience in footwear production and development has been applied also to the manufacturing of military boots. We have been supplying the Slovene armed forces with military boots from the

very beginning and have been keeping up with the requirements and trends of a modern military. Systematic testing and high-tech development have enabled us to develop high quality military footwear that meets the strict requirements and trials that a modern military force is subjected to.

All models have been developed on the basis of foot measurements carried out on soldiers. Carefully selected materials, anatomically designed footbed, firm rubber sole and protective toe cap insure extreme rigidity and comfort at the same time.



Arpenaz



Desert



Desert



Teton

DEFENCE PROGRAMME



plastic blank &
drill ammunition



up to calibre 30 x 173 mm

plastic & metal links



M27, M13, M9

special equipment
& buckles





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Company Bijol d.o.o. was established in 1996, with the main activity of representing, assembling and servicing cranes of the company Palfinger GmbH. Today the company employs 25 full-time employed workers and some contract workers.



Headquarter of the company

Company Palfinger with headquarters in Salzburg, Austria is well known manufacturer of lifting-loading equipment. Palfinger's loading technology is powerful because of its excellent kinematics and geometry of mobility. Palfinger's products are improved again and again with numerous patents and innovations, so that the company has proven itself and gained an important role as an innovator in the development of lifting techniques. The largest share in the firm's business have truck mounted knuckle-boom cranes Palfinger and timber and recycling cranes Palfinger Epsilon. The company's program also consists of tail lifts, aerial work platforms, container handling systems, transportable forklifts, for special transport dedicated trailers and also for the needs of army. Among mentioned Palfinger company, Bijol d.o.o. also represents other companies such as Doll, Exte, Stepa, Huffermann,...

In 2004, the company Bijol d.o.o. gained first business for the Slovenian army on the public competition in cooperation with company Dumida d.o.o. Within that year a new assembly-services workshop specifically for projects in the military industry was built. In 2006 the company also renovated other production facilities and built new offices.

First project for Slovenian army was relatively large, it consisted of assembling 48 container handling systems Palfinger Palift on the trucks Mercedes Benz.

This project was followed by number of others such as, purchasing knuckle-boom cranes with baskets for decontamination of vehicles, purchase of special transportable forklifts Palfinger Crayler and also radar systems for which the basics of hydraulic lifting and descending was constructed and manufactured in company Bijol d.o.o.



PALIFT hook loader on Mercedes-Benz

The cooperation between Slovenian Army and Bijol d.o.o., was not closed with those projects. The company still provides regular services and strojelome. In this year they have entered into the Cluster of Slovenian Army Industry.

Company Bijol has relatively large range of activity, so each customer from this technical field can find something suitable. Company's staff listen to their customers, advise them and offer quick and efficient services.

Our references from Military program:



PALIFT load handling solutions



Working basket with Kärcher Decontamination system



Hydraulic system for mobile radar



Crayler forklift for military applications



Loader crane



Recovery vehicle with two winches and three-wheel coupling

General representative in Slovenia for:





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With its specialized military and police equipment, the company Dat-Con d.o.o. has successfully established itself in the European market, and is involved in international projects founded by EU Phare and EBRD programs.

Specialized knowhow and experience enable the company to adapt to the customers' requirements and demands quickly and efficiently. Our knowhow in the field of measurement equipment, combined with the experience in the field of professional audio and video equipment, enabled us to develop efficient solutions for the complex specialized electronics field. The products and devices are applied in video supervision of state borders, road traffic, communication and other systems in security operations.



Dat-Con d.o.o. main building and production hall

Our newest product Rescue Hovercraft SR-81

Rescue Hovercraft SR-81 is designed and manufactured to meet the demanding needs of Search&Rescue Organizations. It operates effectively in extreme conditions on water (thin or broken ice, swamp...) and on



land (snow, dirt, desert, off-road...). Hovercraft SR-81 also enhances organization rescue capabilities and provides higher security for personnel.

Every Hovercraft SR-81 is custom built to end-user specifications and a wide range of optional equipment is available:

- radio station,
- thermal camera with pan/tilt and waterproof monitor,
- lights for night rescue – reflector,
- helmets with built in micro telephone communications ,...

BORDER PATROL SYSTEM BOPAS-03 (flexible portable surveillance system with thermal camera)

The system is designed for all surveillance requirements in normal and extreme conditions and provides short and long range observation. It can be used as a Hand Held unit with internal battery or can be integrated with the tripod, pan tilt unit and remote operating console. Pan tilt has high dynamic response and excellent repeatability. TFT high resolution monitor allows full camera control and true on-screen status report.





Mobile and stationary surveillance systems

Surveillance systems can be integrated in different types of vehicles (like vans and allterrain vehicles) or mounted on different types of towers, builings and poles in accordance with customer requirements. We offer special solutions for land and sea observation with long range thermal cameras, nautical radars, complete GPS positioning and navigation system-AIS, VTS in combination with laser range finder.

Surveillance systems are equipped with:

- Customize electro optical head
- Our pan-tilt solution
- Our lifting mechanism
- Control area for two operators
- Software
- GIS application with orto-photo
- Long range observation up to 40 km
- Combination with land and nautical radar
- Communication system connected to control centre
- Complete power supply autonomy

Stationary observing systems made by company Dat-Con d.o.o.

Surveillance systems can be mounted on different types of towers, buildings and poles in accordance with customer requirements.



Mobile border surveillance systems made by company Dat-Con d.o.o.



DOMEL®

We create motion

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SMART AIR DELIVERY SYSTEMS FOR FUEL CELLS BASED ON BRUSHLESS TECHNOLOGY

Fuel cell technology gives us the promise of an electrical energy source for the future, based on clean and efficient generation without harmful environmental influences. In order to fulfill Domel's mission to keep the environment unharmed, special technologies to support demands for oxygen and hydrogen delivery systems in fuel cell applications were developed.

Hydrogen and atmospheric oxygen react in the fuel cell with each other. A flexible membrane is the heart of the PEM fuel cell. Here, the vital electro-chemical reaction takes place. Critical to the life time of the

most important parts of fuel cells are oxygen and hydrogen delivery system realized with different blowers and pumps.

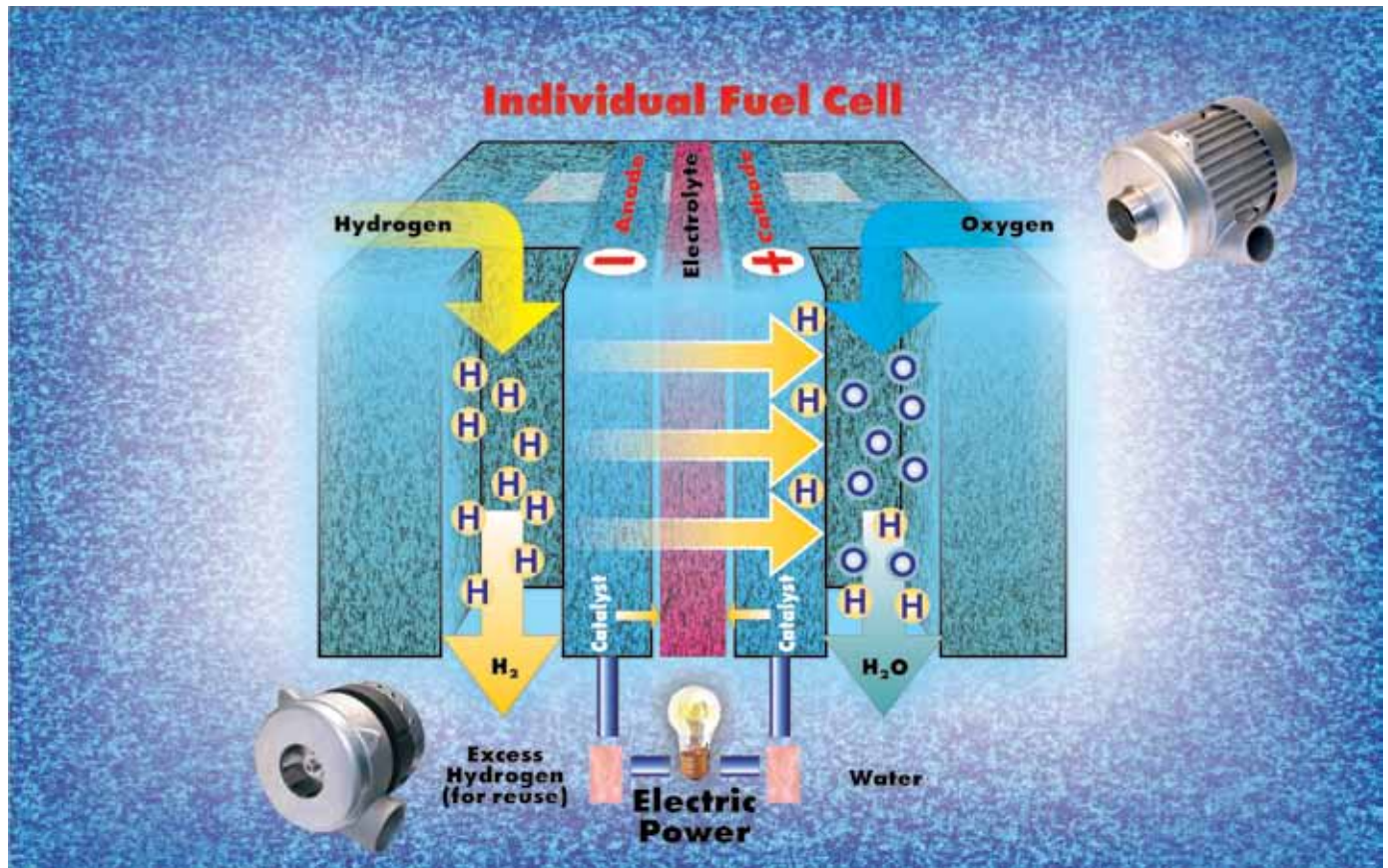
The main advantage of electronically commutated brushless blower technology is: maintenance free, carbon dust free and spark-free operation combined with high efficiency. The high efficiency helps to increase the overall efficiency of the complete fuel cell system. Domel's main brushless blower functions are supervised by DSP (digital signal processor) with high accuracy and quick response. Overall it means enhanced flexibility, dynamic, independence from supply voltage oscillation, rapid response, accurate speed control, high performance and a high level of



Smart air delivery systems for fuel cells based on brushless technology

robustness. All of these features are available from Domel's microprocessor controlled brushless blower, specially developed for fuel cell applications.

For harsh environment conditions a compact blower design is also available. Despite the compact design of brushless blowers, they are sufficiently robust to meet the demanding requirements of fuel cell applications, such as: vibration, gas leakage, condensation and low-noise.



Operation principles and product examples



EMO - ORODJARNA

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TOOLFACTORY

The trade mark of EMO-Orodjarna - two lions means high quality and capability in satisfying the demands and desires of buyers.

Our programme is divided to:

1. transfer tools for transforming sheet metal,
2. progressive tools for transforming sheet metal,
3. individual tools for transforming sheet metal.

We employ highly educated specialists which use the most modern technology and software. We are proud to be a strategical partner and vendor specialty in automotive industry.

We export to the most demanding markets. Our portfolio beside from customer satisfaction is also constant growth of sales.



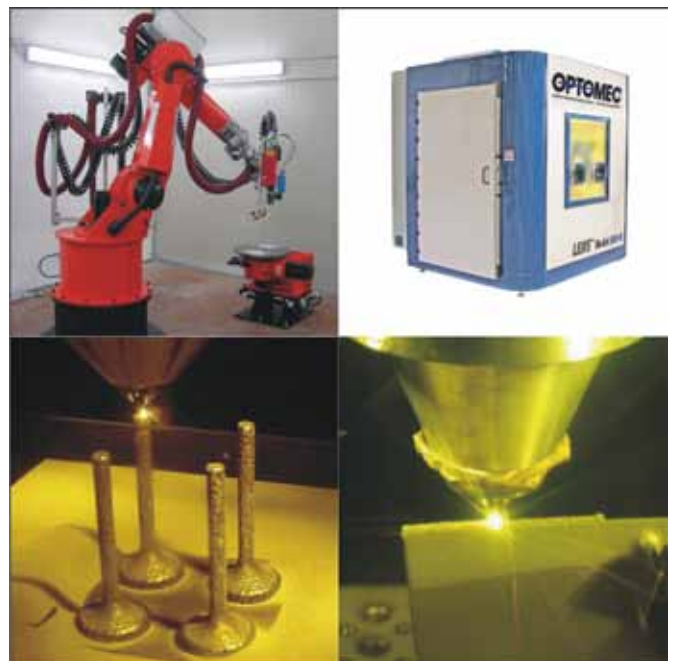


LASER ENGINEERED NET SHAPING

LENS (Laser Engineered Net Shaping™) is an additive manufacturing technique for rapidly fabricating, enhancing and repairing metal components directly from CAD data. The technology allows to design a part using standard 3D CAD software and build it directly from one or more of about 76 alloy powders including steel, titanium, nickel, aluminum, copper, and metal matrix composites.

LENS offers four technical advantages: fabrication of hollow or embedded structures, computer controlled gradient deposition of multiple materials in one part, material properties comparable to investment castings out of the machine or close to wrought materials after heat treating, and a small heat affected zone.

LENS is used in machine engineering (for repairing and renewal of most demanding component parts of contemporary tools and mechanical elements), air-space, military, electro, car and in other industry e.g. to medicine (surgical instruments and prosthetic implants).



LASER HARDENING

Laser hardening is a metal surface treatment process complementary to conventional flame and induction hardening processes. A high-power laser beam is used to heat a metal surface rapidly and selectively to produce hardened case depths of up to 1.5 mm with hardness values of to 65 HRC. The high hardness of the martensitic micro-structure provides improved properties such as wear resistance and increased strength.

TIC - LENS laserske tehnologije, d.o.o.
www.tic-lens.com

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INTEGRATED CBRN RECONNAISSANCE SYSTEM

CBRN reconnaissance vehicle system has been designed for Chemical, Biological, Radiological and Nuclear reconnaissance. The system offers a fully integrated and automated NBC reconnaissance suit, controlled by central computer/s and operated by the vehicle crew.

It provides automated crew protection capability and measuring instruments for NBC detection and identification, systems for visual reconnaissance, and remote (stand off) chemical detection. The system enables integration onto a suitable vehicle platform.



Configuration enables detection and identification of Chemical Warfare Agents (CWA), Biological Warfare Agents (BWA), Toxic Industrial Chemicals (TIC), and complete spectrum of other toxic releases (ROTA). All data acquisition and processing is automated. Reports are sent in NATO standardized mode.

The system has been extensively tested and approved by relevant (NATO) authorized test facilities.



AUTOMATED CREW PROTECTION CAPABILITY:

- Air monitoring inside the vehicle (CO₂ and O₂ level monitoring);
- Chemical detection and air monitoring inside the vehicle (including the NBC filter break-through surveillance). Detection of CWAs and TICs;
- Real-time nuclear radiation monitoring in the vehicle for crew protection.



CBRN RECONNAISSANCE SYSTEM CAPABILITIES:

- Nuclear detection - area and ground contamination monitoring from the vehicle;
- Chemical detection and outside air monitoring (CWA and TIC detection);
- Biological detector - provides continuous and real time BWA detection capability (biological or aerosol type changes in the atmospheric background);
- Remote (stand-off) infrared chemical detection. Automatic, real-time monitoring of all known CWAs and important TICs - up to a distance of 5 km - stationary or on the move. Complete 360° coverage, elevation angle from -10° to 50°;



INTEGRATED CBRN RECONNAISSANCE SYSTEM

- Sampling System - fully automated and remote controlled sampling system for collection of samples from within the protected environment of the vehicle. Collected samples are sealed in containers and stored outside the vehicle for further analysis;



- Marking System – automated, operator controlled marking system for contaminated areas;



- Meteorological station - providing all required meteorological data to the system;
- Central computer system and MFD Displays for the operation and control of all data collected from sensors inside and outside the vehicle;
- NBC Software – fully integrated CBRN software system for the operation and control of sensor systems, data acquisition, alarm monitoring and reporting;



- GPS receiver – integrated GPS receiver ensures constant position information and precision guidance capabilities;

- Laser threat detection and warning system - protecting against laser associated weapon threats;
- System integration, Documentation and Training.

ADVANCED CAPABILITIES:

- Chemical identification - Mobile Mass Spectrometer with air-surface probe, gas chromatograph and surface sampler providing identification capability from any medium (soil, water, air);
- Sampling wheels for ground surface sampling and detection/identification capability on the move;
- Visual reconnaissance systems (day and night observation capabilities) and weapon systems;



- Portable detection instruments;
- Communication systems with required comm. software.



STAND ALONE – N.B.C. DEFENCE DETECTION SYSTEM

Stand Alone is a detection system for N.B.C. defense, for observing and protecting important buildings, for protecting people against possible N.B.C. attack with weapons for mass destruction.



Independent Stand Alone Units are placed on the field and automatically send data to the Control Station for N.B.C. monitoring.

Stand Alone Unit consists of two cases. A battery is integrated in the power supply case and takes care for autonomous operation of the unit.

Instruments for Chemical Warfare Agents (CWA's) detection, Biological Agents detection and Radiological detection are integrated in the measuring equipment case.

A meteorological station is used for measurement of wind speed, wind direction, humidity, air temperature and atmospheric pressure. Compass is integrated in meteorological station and is used for measuring wind direction according to North. GPS determines Latitude and Longitude of placed system in the field.



Rugged computer with software interface enables instrument control and data transmission over radio to the Control Station.



Control Station enables on-line monitoring and visualization of 5 Stand Alone Units, visual and audio alarms, saving alarm events into database and sending NATO standardized ATP-45 messages.

DEPLOYABLE CHEM/BIO LABORATORY

Deployable Chemical Laboratory is designed for detection and identification of Chemical Warfare Agents (CWA's) and Toxic Industrial Chemicals (TIC's). Deployable Biological Laboratory represents a laboratory with a capability for fast on-site diagnostics. It combines functionality, efficient use of space and flexibility in BSL-3 containment. In the case of attack with weapons for mass destruction and biological agents, a rapid and effective response and correct identification of the biological agents is extremely important.



The Deployable Chem / Bio Laboratory containment integrates different instruments with hard and software support. The equipment enables data processing, communication and transmission of NBC reports. The NBC-Filtration-System consists of filters that protect against NBC agents. Positive pressure assures clean air in the laboratory as well as the negative pressure in glove box assures clean and safe working environment.

Deployable Chem / Bio Laboratory is divided in three compartments: engine room, entrance with shower and laboratory with glove box. Samples for further analysis are prepared in glove box.

Chemical Laboratory enables:

- sample preparation for further analysis (air, aqueous, liquid, soil, wipe, active charcoal and other samples),
- identification and semiquantitative measurement of concentrations of CWA's and other chemicals,
- identification of toxins with rapid tests,
- measurement of TIC's concentrations,
- sample acceptance, distribution and preservation for further analyses in reference laboratories.



High quality BSL3 cabinet and instruments for the microbiological diagnostics enable accurate detection and identification of microorganisms which could be potential bioterroristic agents. With such containment, Deployable Biological Laboratory can provide safe, fast and accurate working process.



Methods for direct and indirect detection of microorganisms performed in the Deployable Biological Laboratory include:

- molecular-biological methods (detection of the nucleic acids, PCR),
- light and fluorescent microscopy,
- serological testing (detection of specific antibodies as a response to the infection),
- safe sample handling in the laboratory/glove box ("hot/hazard" input),
- survey of the results and output of the data.

The Deployable Chem / Bio Laboratory can be further customized to fit specific needs.

Fotona

choose perfection

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Fotona is one of the biggest European producers of military, medical and industrial optoelectronic devices and systems. It is traditionally well known as a manufacturer of laser rangefinders, laser warning systems, tank and artillery fire control systems. More than 15,000 laser rangefinders and 850 full performance tank fire control systems have been delivered to various customers worldwide in over 40 years of evolutionary development. The advantage of Fotona is its familiarity with the original military equipment and its mastering of modern technology, thanks to continuous R&D efforts and highly qualified workforce. The company is ISO 9001 certified.

Laser rangefinders: Metrix family of laser binoculars with digital compass represents Fotona's best selling military devices. Position determination, target location and other field measurements are but a few activities that become simple by the aid of the versatile members of Metrix family. In addition, digital data can be transferred from Metrix to other equipment. When connected into a tactical communication network, **Metrix supports the concept of digitised battlefield by bringing digitisation down to individual soldiers.**



Metrix is equipped with a powerful yet eye safe Er:glass laser which offers a number of advantages over semiconductor lasers, frequently used in laser binoculars.

- It has an inherently longer ranging capability (up to 20 km), based on a simple time-of-flight measurement;

- Metrix assures more reliable and accurate measurements of small targets on short ranges and under poor visibility;
- Metrix determines the range to the target with a single pulse, minimizing the possibility of detection by enemy laser warning systems;
- Shorter time of measurement and narrower laser beam means more reliable measurements of moving targets;

Metrix is designed to operate either as a standalone instrument, connected to a GPS receiver or connected to a tactical data terminal. General purpose RS 232 or RS 485 data link is provided for connection to C3I equipment.

ESLRF

Based on proven Metrix electronic and laser components, ESLRF has been developed as a remotely controlled laser rangefinder module for airborne applications. Its maximum transmitted energy is within the limits of Class 1 IEC specifications. Total eye safety facilitates ranging against friendly and neutral targets. Typical applications include range sensing in stabilized optronic payloads, installed on UAVs, manned aircraft and helicopters. Boreighting with other optical sensors (thermal and video cameras) within higher-level system is achieved via precise mechanical interface as well as by a pair of optical wedges in front of the ESLRF laser transmitter aperture. . Data transmission protocol complies with RS 422 (other upon request). All functions of the instrument are accessible via remote control.



Laser Warning Systems: The purpose of these systems is to reduce vulnerability of the protected objects to laser-associated weapon threats by providing the crew with a visual and audio warning that their vehicle / ship / gun post etc is being irradiated by a pulsed laser rangefinder or laser designator/illuminator or that a laser beam riding missile is being aimed at. The warning will enable the crew to take appropriate self-protective action or countermeasure (manoeuvre, smoke screen deployment etc...).

LIRD-4A and **B** are the latest in a series of a laser warning systems developed and produced by Fotona. They are characterized by a wide spectral range and high sensitivity combined with low false alarm rate. LIRD-4A allows monitoring the surroundings of the vehicle for scattered laser light by an indirect detection system, contributing thus to the integrity of protection. In addition to laser rangefinders and designators LIRD-4B detects missile-guiding lasers that guide so called “beam riding missiles” towards the target. A real time interface signal, which exactly reproduces the incoming sequence of laser pulses, is another standard feature of LIRD-4A and B warning systems. This signal may be used in countermeasure systems for control of deceptive laser sources.



LIRD-4A and B detect a number of laser sources in a wide range of visual and near infrared part of the spectrum, including:

- Frequency doubled Nd:YAG
- Ruby
- Nd:glass
- Nd:YAG
- Er:glass
- Raman shifted Nd:YAG, etc

LIRD-4A and B have been so far successfully installed on the following vehicles and integrated into their countermeasure systems:

MBTs: T-72, M-84, T-55, Leclerc,

APCs and IFVs: Pandur (Valuk), BMP-3, M-113, CV-90, Piranha, Otokar Cobra, Aligator,



Tank fire control systems: EFCS3 family of fire control systems has been designed primarily as a retrofit to all T-series tanks, not only those manufactured in former Soviet Union, but also their Yugoslav and Chinese derivatives. Minimum installation effort is required, since no armour cutting is necessary. Utilizing independent line-of-sight for continuous target tracking, the systems allow firing on the move to moving and stationary targets. Recently, Fotona introduced a third gen. thermal imager as a night channel of the gunner’s sight of the EFCS3 family.

Fotona T-55 fire control systems: EFCS3-55B: is the most complex fire control system for modernization of T-55 tanks available. With minor modifications the system also fits into T-62 and T-59/T-69. Software is available for Russian 100 mm and 115 mm calibre guns as well as for 105 mm NATO ammunition. For maximum cost efficiency, existing gyros are used for stabilization of the gunner’s line of sight. Improved gun-triggering mechanism with accurately predicted fire gate enables firing at the moment when conditions are met for the highest hit probability.



FCP is an alternative, modernization kit, consisting of a digital ballistic computer, a laser rangefinder and a CRT reticule projector. Even with this simple and inexpensive system, the hit probability is substantially improved, although it does not provide a firing-on-the-move feature.

Fotona T-72 fire control systems. Fotona has developed a number of fire control systems for T-72 tank, tailored to the prospective customers' requirements. Some of them retain original TPD-K1 day laser sight, either as a back up or as an alternative source of laser range. The most advanced ones, such as TFCS3-M84 system for M-84 tank, however, do not rely on the original equipment whatsoever, offering instead the following advantages:

- Fast and simple installation, maintenance and repair,
- High first round hit probability and short engagement time,
- 24 hours per day operation capability, assured by a state-of-the art thermal imager as a night sight,
- Full integration with the existing automatic gun-loading system,
- Dynamic trunnion tilt sensing,
- Tilt-independent target tracking,
- Firing on the move with stabilized gunner's field of view and gun-independent line of sight,
- Variety of system configurations and optional equipment ,
- Optimal performance-to-cost ratio;

Artillery fire control systems:

ARTES-1000: ARTES-1000 is a system for battlefield observation and for planning, executing and controlling artillery fire. Combined with the telecommunications equipment on the forward observer's post, it is used as an observation and data acquisition instrument, while at the gun position it is used as a device for calculating and displaying the elements of artillery fire.



ARTES-1000 supports activities on:

- Observation post;
- Command posts;
- Gun positions

Its main building blocks are observers' modules and display modules, connected together via radio or telephone links. GXM data visualization software allows display of acquired information on military PC compatible computers.

Observers' module is a compact, rugged platform, consisting of EMK-5 electronic goniometer and RLD-E2 eye safe laser rangefinder. Goniometer is equipped with a GPS receiver, an electronic compass, automatic leveling and communications devices. User interface comprises a graphic LCD screen with keypad; multi-lingual support includes English, Slovene, Arabic, etc. An optional thermal camera may be added for night observation and operation under adverse weather conditions. Observers' module is used on the forward observation post, on the command post as well as on the gun position – for gun laying.

Display module may be attached to the weapon, set on the tripod near the weapon or installed inside a self-propelled weapon. Its main function is to calculate ballistic data for each weapon individually and to display them to the gunner. The device has many hardware subsystems and software routines in common with the observers' module, contributing thus to the overall modularity of ARTES system.

System functions:

On the observation's post:

- Orientation and battlefield observation;
- Target data acquisition;
- Fire correction;



On the command post:

- Mission planning and control

On the gun positions:

- Gun laying
- Ballistic calculations



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Gostol-Gopan d.o.o. has been a heavy duty equipment producer since 1947.

One of its product range are tailor made solutions of process equipment for production of propellants for civil and defense industry purposes.

Gostol-Gopan d.o.o. presents some of its special equipment such as Kneading and Cutting machines in accordance with Directive 94/9/EC.

The Kneading Machine is designed for kneading, mixing and homogenizing of pasty media.



Key benefits:

- optimal performance by using two parallel, horizontal mixing arms;
- mixing arms rotating at different rotating speed one against the other;
- hydraulic drive;
- double bottomed mixing bowl for flow heating, cooling or constant temperature maintaining;
- heating media: steam, thermo oil or water;
- emptying of the bowl by its overturning;
- PC/PLC control and monitoring of the technological process in the Kneading Machine;
- custom design;
- long term performance.

The Cutting Machine »Guillotine« is designed for cutting bundles of extruded propellants or propellant strips.



Key benefits:

- adjustable cutting length, very high accuracy;
- PC/PLC control and monitoring of the process;
- custom design; long term performance;

Technical data:

Feeding channel (height x width) [mm]	min.35x150 max. 100x150
Number of feeding channels	2
Knife frequency ($n_1 - n_2$) [min^{-1}]	120 - 60
Cutting length ($l_{\text{min}} - l_{\text{max}}$) [mm]	0,2 - 6,0 (or more)
Single strip diameter ($d_{\text{min}} - d_{\text{max}}$) [mm]	0,6 - 3,0 (or more)

The Rotary Cutting Machine is designed for cutting extruded propellants with round shaped cross-section.



Key benefits:

- adjustable cutting length, very high accuracy;
- PC/PLC control and monitoring of the process;
- custom design; long term performance;

Technical data:

Rotary knife frequency [min^{-1}]	305 - 915
Feeder frequency [min^{-1}]	55 - 103
Cutting length ($l_{\text{min}} - l_{\text{max}}$) [mm]	2,5 - 19
Single filament diameter ($d_{\text{min}} - d_{\text{max}}$) [mm]	2 - 25



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AWTS - Armored Warfare Training System

AWTS M-84 main battle tank version of AWTS, was developed in close cooperation with Slovene Armed Forces and was rolled out to 45th Armored Battalion of Slovene Armed Forces in December 2009.

The Armored Warfare Training System (AWTS) is an advanced operational and tactical training system of tank crews and crew commanding staff.

Single crew M-84 tank trainer consists of instructor station and three separate cabins which are exact replicas of commander's, driver's and gunner's working environment in the M-84 tank.



AWTS FEATURES

- Efficient and economical training of tank crews;
- Training of tactics and communication procedures;
- Simultaneous tactical training of multiple crews;
- After Action Review and progress monitoring;
- User friendly intuitive scenario editor;
- Database of various units and warfare scenarios;
- Compact, easy to transport and operate;
- DIS / HLA interoperable with other systems.



PROPRIETARY VIRTUAL TECHNOLOGY

- High-end real-time technology for simulations;
- Friendly and opposing Semi Automated Forces;
- Vehicle, weapon, terrain and scenario database;
- Simulation of physics, dynamics and ballistics;
- Photorealistic virtual environments and simulation;
- Real-time calculation of multiple air and land entities;
- GIS based terrain generation and rendering;
- Flexible technology with different possible applications.



MODULAR TECHNOLOGY

Proprietary technology enables development and maintenance of simulators for various tracked and wheeled armored vehicles.

Our virtual training system enables wide range of tactical land forces training, with fully functional interaction and complete visual and aural information



GUARDIARIS PARTNER FOR YOUR PROJECTS

Established in 2002 and is employing over 40 engineers and 3D experts. We have extensive know-how in development and maintenance of VR simulators and training tools for defense sector under Guardiaris trademark. We are co-founding member of Slovenian Defense Industry Cluster and have over 7 years of experience working with Slovene Ministry of Defense and Slovene Armed Forces.





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We are a family company with 30 years of experience in the field of machining (turning, drilling, milling, ..).



In the year 2000 we started to cooperate in automotive area, what means, more commitment to the products quality and customer satisfaction.

Since y. 2003, we are certified refer to quality standard ISO9001 and continual we insure a certified quality management system and progressive measures for improvements in our performance.

In the 2009 we obtained an approval and authorization of the Ministry of Defence for the production of weapons and joined the defense industry association of Slovenia.

On our high - tech. CNC machines (27 pcs.), today, we mostly produce the turning parts for automotive and other industry for customers coming from Austria, Germany and Sweden.

We are also able for production for some parts (all material) for defense industry as folow:

- special components,
- assembly parts,
- other spare parts...



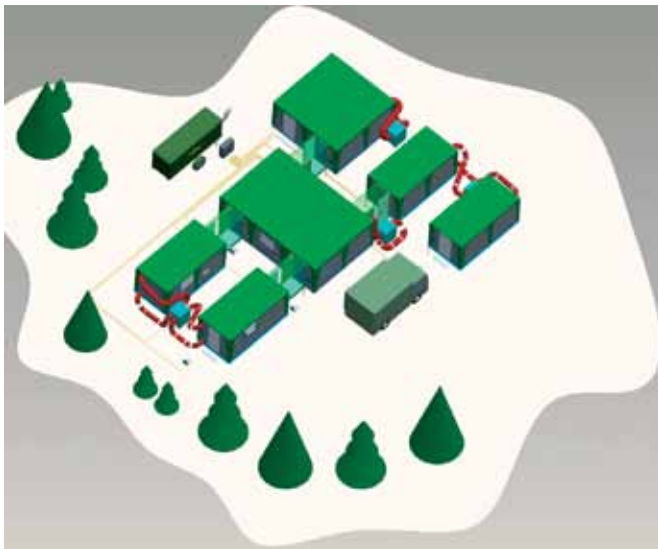
Our products:





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Company IKOR-B was found in year 1969 by Mr. Franc Birtič and from then engages in innovative activity from filed of metal working and civil engineering, with wide range of product based on own development.. Company has a lot of international patents and awards for innovations which one of inventions is Modular Camp Systems assembled of Quick Folding Containers and Modular Halls



Natural disasters and states of the war are phenomena occurring daily on different ends of the world. The needs for quick military or rescue groups intervention continue to increase all over the world. We are aware of the importance to respond rapidly to emerging crisis situations. The equipment of rescue teams is one of the key factors affecting a rapid, adequate response. The rapid development of IT systems increasingly based on the commercial IT components also results in a change of requirements to be met by mobile accommodation /office systems. The IKOR-B d.o.o. focuses on solving and providing living and working conditions for such rescue teams. For this purpose our company manufactures the **so-called quickly assembled accommodation and office containers**. One of the essential characteristics related to the assembled containers is represented by the requirement of a minimum cargo volume reducing consequently the transport and storage costs.

ADVANTAGES OF RAPIDLY ASSEMBLED ACCOMMODATION AND OFFICE CONTAINERS

- A simple and quick container manipulation (assembly - disassembly) without any special tools .The container is designed to withstand multiple assembly and disassembly without significant impact on container or modular hall construction parts.
- Simple setting up and fast restoration container climatic environment with air-conditioning.
- All containers and modular halls are equipped with electrical and IT installations providing for a simple and fast connection with a power source and connection between individual container units (C4I System: Command , Control, Communication, Computerization and Information)
- A small containers weight and outside gauge, enables transport by a medium size helicopter or transport aircraft.
- The construction design of containers and modular halls allow a variety of setting up combinations and connections of container units into the functional entities.
- Adjusting ability with tents and other containers.
- Small storeroom and transport volume: The folded accommodation containers and modular halls of approx. 40 m2 useful accommodation surface may be stored and transported in a standard transport container (lower transport and storage costs).
- The containers and modular halls are designed to insure comfortable working environment climate according to STANAG 2985

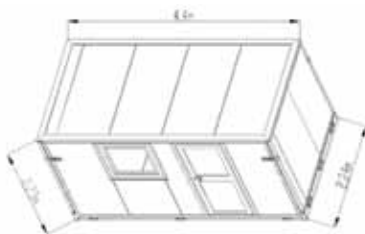


Slovenian army and civil defence units use and test rapidly assembled accommodation / office containers since 1997 within various operations for various purposes, as follows:

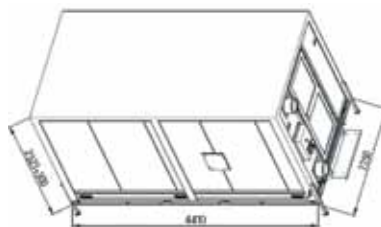
- In controlled peacekeeping operation, in cases of natural disasters.
- Protection of soldiers and equipment in extreme conditions of activities on heavily accessible places.
- During military exercises and trainings.
- The Information Centre for guidance in crisis situations.
- The Veterinary Field Hospitals and Mobile Laboratories.



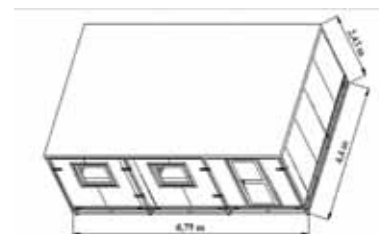
MODULAR CAMP COMPRISES OF THE FOLLOWING UNITS:



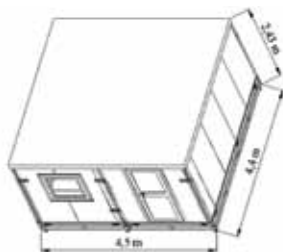
Quick Assembly Container HBK Type 1
NSN code 5411-42-0000054



Quick Assembly Container HBK Type 2
NSN code 5411-42-0000064



Modular Hall composed of three Modules -Type TMD
NSN code 5410-42-0000079



Modular Hall composed of two Modules - Type DMD
NSN code 5410-42-0000070



20' ISO 1C Transport container NSN code 8145-42-0000052
Loading the container on a vehicle (ROLLBAR Loading System)



For transport and storage of Quick Assembly Containers, Modular Halls and their equipment, two types of standard 20' ISO containers are modified, in which four or five Quick Assembly Containers are placed and provide approx. 8m³ of additional space for other equipment (Air condition, furniture, toolboxes and other necessary equipment for assembling the camp). Quick Assembly Containers or Modular Hall Modules are placed on a transport mechanism running on special rails inside a transport container.





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Infrastructure facilities and their high-quality electricity supply are of great importance for a defence doctrine in each country. High-quality protection from radio-frequency disturbances is required for good operation of electric devices used for defence purposes. High-quality energy capacitors and efficient compensation of reactive energy are necessary in energy systems and at transmission and distribution of electric energy. Capacitors for application in electronics, motor capacitors and capacitors for lighting applications are convenient for communication purposes, electrical equipment, electric tools, electronic devices and automotive electronics.

About Iskra Kondenzatorji

The Iskra Kondenzatorji company has more than 50 years of tradition in the field of manufacturing capacitors, components for elimination of radio-frequency disturbances, and devices for compensation of reactive energy. We manufacture products, offer services and develop innovative system solutions ensuring efficient, environmentally friendly and economic energy management. The quality of our offers is guaranteed by great knowledge and extensive experiences.

Fields of work:

- Components for elimination of radio-frequency disturbances
- Capacitors for electronics
- Motor capacitors / capacitors for lighting applications
- Low-voltage energy capacitors
- High-voltage energy capacitors
- Capacitors for induction heating
- Devices for compensation of reactive energy



All our products and solutions include ecologically suitable materials. In addition to the development and designing of capacitors, we also tailor our products to customers' requirements.

Compensation of reactive energy

Reactive energy should be correspondingly compensated since it entails unnecessary costs for electric energy. This can be done by a compensation device consisting of a reactive power regulator, a contactor and a capacitor battery. The regulator of reactive power in a capacitor battery switches on and off, depending on power factor in the network and on a required factor value. Our company provides for a key solution. We manufacture fixed compensation devices for the compensation of low-voltage transformers, power increase in already integrated compensation devices, automatic compensation devices for the compensation of reactive power in distribution centres and industrial premises, automatic compensation devices with harmonic filters for the centralized compensation of reactive power in industrial and other premises where harmonics are present in the electric network as well as dynamic compensation devices for the compensation of reactive power in industrial premises where dynamic drivers are used.





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Defence and Security

Recently, the defence and security doctrines have been changing completely. The progress of telecommunication techniques has enabled high-quality and fast digital voice and data transmission to become an increasingly important element of defence systems. The threat of terrorism demands new ways of protection. After joining NATO, the Slovenian armed forces are equipped in line with the new requirements for ensuring safety at home and for efficiently helping international missions abroad. Furthermore, non-military security systems are rapidly adjusting themselves to these new conditions.

In-depth knowledge of the current systems and the new requirements enables us to cooperate with our foreign partners on an equal footing when offering modern and effective IT solutions to our armed forces and other bodies responsible for the provision of security, protection and rescue operations.

About security we should think well in advance. One of the correct responses to the increasing world-wide danger is electronic security, protecting people and their property. Our customers are offered the latest technological solutions in security, since we are closely connected with the leading manufacturers in this field. The electronic security systems that we market are distinguished by their high degree of reliability, capacity, efficiency, adaptability, accuracy and connectivity, thus ensuring the lowest possible number of false alarms.

MILITARY IT SYSTEMS

- Tactical communications
- Air space control
- Artillery command and control
- Internal communication in the vehicles
- Mobile command and control systems

PROFESSIONAL AND MOBILE RADIO

- Functional links
- Paging
- Control systems for operation and communication centres

DOMESTIC SECURITY

- Border control systems
- Security in emergencies and natural catastrophes
- Protection of important infrastructure
- Crisis management

ELECTRONIC SECURITY SYSTEMS

- Fire protection
- Intrusion protection systems
- Gas detection systems
- Access and time-attendance control systems
- Video monitoring
- Central monitoring systems



MMARS – Modular Multiservice Architecture for Real-time Services

With 60 years of experience, Iskratel Group ranks among the world's leading high-tech companies in the market for integrated telecommunications solutions. It provides state-of-the-art, corporate communications solutions, especially for dedicated networks, and it has long-term experiences in the field of military solutions.

Iskratel's MMARS (Modular Multiservice Architecture for Real-time Services) is designed for various military deployments, public safety, humanitarian aid relief and first responders. It was developed in accordance with the needs of the Slovenian military as a pilot for a next-generation, packet-based, tactical network and



can be used as the basis for many new products, implementing the latest TACOMS STANAG, which is defined for NATO countries to enable interconnectivity.

Iskratel's MMARS node is a perfect solution, enabling a rapid response in the event of a crisis or a variety of natural disasters, while maintaining connectivity and service reach with legacy equipment and interconnections with the public telephone network. It is a compact, instantly deployable, next-generation, packet-based, communication node, providing a rich set of services, including voice, video data and user mobility; it weighs less than 80kg and is a ready-to-use complete telecommunications network node.

The MMARS node is developed according to the latest ETSI (IMS, MLPP, H.323), IETF (SIP, SIP-T) and NATO (TACOMS and NNEC) standards, thus providing a rich set of quad-play services with superior service quality and standardized external interfaces, with backward compatibility to legacy (tactical, PSTN) systems. The services, like priority services, announcements, message play and record, advanced multimedia conferences, and other sophisticated capabilities, including security features, if needed, are provided as an integral part of the MMARS node. Nevertheless, the MMARS node provides, combined with Battlefield Directory or Home Subscriber Server, user/terminal and service mobility that allows users to access services, not only on one node, but they are able to "roam" seamlessly between nodes.

The heart of the MMARS node is represented by Iskratel's off-the-shelf SI3000 MultiService Control Node (MSCN) and different security elements like FireWall, Routers, Intrusion Prevention System (IPS) and Session Border Controller (SBC). The SI3000 MSCN provides secure and authenticated access to the quad-play services for users and O&M features for MMARS-node maintenance personnel. For interconnection with other MMARS nodes or third-party telecommunications nodes over unsecure communication channels, FireWall, Router, IPS and SBC are used. Additionally, crypto boxes providing military-grade encryption may be integrated into the MMARS node.

Furthermore, the MMARS node can be incrementally populated with other access technologies, like xDSL, WiMAX from SI3000 MultiService Access Node (MSAN) products, based on field/environment requirements,

eliminating costly wholesale platform upgrades and providing network-deployment flexibility.



Product Features	Benefit description
Easy Usage	The MMARS node can be preconfigured to minimize deployment time. This enables a rapid response in the case of crises and various natural disasters.
Military standard case	The case is a military version of the aluminum box with additional vibration damping. If back and front lids are closed the equipment is protected from dust and from jets of water (IP65) while being transported. It has four handles for on-site moving.
Industrial-grade COTS components	The complete MMARS node is built around commercial components, thus providing a cost-effective solution to be used for different deployments. All the components fit into a standard 19-inch rack, mounted into an aluminum rack, with additional holding brackets to allow it to withstand greater forces.
Quad-play (voice, video, data, mobility) service support	Full multimedia quad-play service support, combined with user/terminal mobility, independent of the access technology used. More than 100 different services are available, including priority service (MLPPP Multi-Level Precedence and Preemption), advanced conferencing, integration with the Battlefield Directory or Home Subscriber Server, if needed, and other sophisticated services including security features.



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- Manufacture of fabricated metal products of dedicated industry
- Export and import - Representative program, development, storage



The Protective Helmet



Helmetofone



Pilot Helmet



Pilot Oxygen Mask

We provide an integrated or integration of several activities in the life cycle of conventional ammunition. The life cycle of munitions, inter alias: the definition of requirements - needs, conceptual planning, detail planning, storage, transportation, handling, maintenance, use and retirement - demilitarization.

We offer comprehensive engineering services in the management and implementation of investment projects in the field of maintenance and demilitarization of conventional ammunition, which includes professional implementation of activities in all stages of investment processes. We offer investors the creation of timely, quality and integrated solutions from idea to execution.

To the investors we provide comprehensive technical and organizational support in all phases of planning, development, and implementation of the project. Special attention to cooperation with the customer in the early stages of planning for the success of the project is crucial. Subscribers are listen closely, they are advised and directed. We also, provide education and training Appropriate of our services and technological equipment.





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Logon unites experienced experts from various disciplines of visual information technology. The company's principal activities are software development, IT support, visual information systems, virtual manuals and virtual simulations. Our research and development strategy is focused primarily on military simulations and simulations for crisis management.

Our principal objective is to provide positive training experience with the help of authentic virtual environments and a high-fidelity 3D database of virtual entity assets, which dynamically represent operational conditions of the real world in a synthetic environment.



It greatly contributes to the improvement of qualifications and training level of personnel and their general safety. The utilization of these virtual training solutions also has positive effects on costs and environmental impact.

Logon provides educational, training and decision making capability in form of virtual training simulators. Our immersive military and civil defence simulators have been shown to be effective for training a variety of tactical and operational skills.

Below presented training solutions were developed in close cooperation with our partner ZootFly company under the NATO programme „Science for Peace and Security 2004-2010“, financed and supported by the Slovenian Ministry of Defence.

Crisis Response Operations Simulator – CROS

The CROS simulator includes many 3D virtual replicas of the military and civilian assets, environment and buildings in FSB Camp Arena, Herat city and nearby villages.



They were made for the purpose of training Slovenian Armed Forces members who participate in the ISAF mission in western Afghanistan.



The simulator enables multi-language computer assisted exercise training. It is suitable for group training in different crisis scenarios (control points, convoy protection & escort, patrolling, ISR and urban warfare).



Strong emphasis is put on interactive education for mission familiarization and culture training.



In CROS soldiers have to detect and resolve asymmetric threats and minimize the dangers to themselves and the civilian population while performing their duties.



The simulator is suitable for defensive training and analysis of asymmetric threats (IED, VBIED, EFP, suicide bombers, sniper attacks, RPG attacks, etc.).



Crisis Management Simulator –CMS

The CMS simulator is designed for education, monitoring and enhancement of skill for emergency responders (Police, Firefighters, Paramedics, Civil Protection, Military, etc.). It does so by providing computer assisted exercises of various crisis scenarios, such as natural and other disasters. It is suitable for tracking of consequences of terrorist acts and training of counter-terrorism practices, tactics, techniques and strategies. The multi-language application is designed to be modular and can thus be adapted for different users. CMS enables:

- Triggering of individual, sequential or multiple incidents.



- Complete overview over the virtual incident environments and chain of events.
- Critical infrastructure protection (CIP) in case of fault, incident or attack.



- Valuable outcome assessment and exercise evaluation.



PRIMAT TOVARNA KOVINSKE OPREME D.D.
TRADITION SINCE 1901

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Facility Security Clearance Certificate – FSCC

Security clearance in accordance with the provisions of the Industrial Security

Directive supporting Enclosure »G« to the NATO Security Policy, C-M (2002)49

Up to the NATO CONFIDENTIAL level

FREESTANDING SAFES SERIES STARPRIM

Freestanding Safes Series STARPRIM

European Standard: EN 1143-1

- STARPRIM 1 – Security Grade CEN I
- STARPRIM 2 – Security Grade CEN II
- STARPRIM 3 – Security Grade CEN III
- STARPRIM 4 – Security Grade CEN IV
- STARPRIM 5 – Security Grade CEN V



SECURE CABINETS SERIES VARPRIM

Secure Cabinets Series VARPRIM

European Standard: EN 14 450

VARPRIM – Security grade S1



Shelf



Inner compartment
(VP 1950/930-1200,
H=300 mm)



Inner compartment
(VP 1580-1220-
860/600, H=180mm)



Pull-out frame
with divider



Pull-out drawer



Pull-out shelf

SECURE ROOMS SERIES *MODULPRIM*

Modular construction Series MODULPRIM

 **European Standard: EN 1143-1**

Also available: **protection against electromagnetic disturbances**

- MODULPRIM 0** – Security Grade CEN 0
- MODULPRIM 1** – Security Grade CEN I
- MODULPRIM 2** – Security Grade CEN II
- MODULPRIM 3** – Security Grade CEN III
- MODULPRIM 4** – Security Grade CEN IV
- MODULPRIM 5** – Security Grade CEN V
- MODULPRIM 6** – Security Grade CEN VI
- MODULPRIM 7** – Security Grade CEN VII
- MODULPRIM 8** – Security Grade CEN VIII
- MODULPRIM 9** – Security Grade CEN IX



1. Floor and ceilings components
2. Construction of components
3. Inner covering
4. Cables opening
5. Ventilation system
6. Secure Door
7. Airing
8. Outer coverings

SECURE ROOMS SERIES *MASSIVPRIM*

Solid construction Series MASSIVPRIM

 **European Standard: EN 1143-1**

Regular Security Grade:

- MASSIVPRIM 5** – Security Grade CEN V
- MASSIVPRIM 6** – Security Grade CEN VI
- MASSIVPRIM 7** – Security Grade CEN VII
- MASSIVPRIM 8** – Security Grade CEN VIII
- MASSIVPRIM 9** – Security Grade CEN IX
- MASSIVPRIM 10** – Security Grade CEN X
- MASSIVPRIM 11** – Security Grade CEN XI
- MASSIVPRIM 12** – Security Grade CEN XII
- MASSIVPRIM 13** – Security Grade CEN XIII

Upgraded Security Grade [CD=Core Drill Protection]:

- MASSIVPRIM 9 CD** – Security Grade CEN IX-CD
- MASSIVPRIM 10 CD** – Security Grade CEN X-CD
- MASSIVPRIM 11 CD** – Security Grade CEN XI-CD
- MASSIVPRIM 12 CD** – Security Grade CEN XII-CD
- MASSIVPRIM 13 CD** – Security Grade CEN XIII-CD



A secure room after filling with concrete mixture and de-panelling



Installation and assembly of wall armouring elements



Installation and assembly of Secure door



Installation of floor armouring elements



Installation of armouring elements and static armouring elements is performed at the same time



Armouring elements and static armouring elements of a secure room, prepared for panelling and filling with concrete mixture

SECURE DOORS SERIES *DOORPRIM*

Secure doors Series DOORPRIM

 **European Standard: EN 1143-1**

Secure doors are a crucial component of secure rooms and they must assure the same or even higher level of safety than the secure rooms themselves.

- DOORPRIM 0** – Security Grade CEN 0
- DOORPRIM 1** – Security Grade CEN I
- DOORPRIM 2** – Security Grade CEN II
- DOORPRIM 3** – Security Grade CEN III
- DOORPRIM 4** – Security Grade CEN IV
- DOORPRIM 5** – Security Grade CEN V
- DOORPRIM 6** – Security Grade CEN VI
- DOORPRIM 7** – Security Grade CEN VII
- DOORPRIM 8** – Security Grade CEN VIII
- DOORPRIM 9** – Security Grade CEN IX



DEPOSIT SAFES

Double-wall construction Series DEPOSIT SAFES

 **According to European Standard: EN 1143-1**

DEPOSIT SAFE 1075/N



- DEPOSIT SAFE 1095/N**
- DEPOSIT SAFE 2075**
- DEPOSIT SAFE 2100**
- DEPOSIT SAFE 3075**
- DEPOSIT SAFE 3100**
- DEPOSIT SAFE 4125**



Depositing from first drawer
DEPOSIT SAFE G/700
DEPOSIT SAFE G/530



Depositing from second drawer
DEPOSIT SAFE G/530/3L



P TEAM d.o.o. Podjetje za inženiring, proizvodnjo
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 F: + 3861563 1034
 E: pteam@siol.net

P TEAM d.o.o. has been a production company since 1991 and has a lot of experience in production of lifting and fixing equipment made of polyester. The company specialises in production of round slings, lifting slings with loops, lashings, lifting slings with hooks, transport and fixing nets. Company's standard production is equipment for up to 20,000 kg, equipment for heavier load limits can be produced on special request.

Webbings are - thanks to their limit load and safety factor - suitable for use on terrain. Mass of webbings in proportion with tensile strength gives better results when working outside.

Lifting slings in combination with hooks or other accessories are very suitable for air transport. On terrain they can be used in different combinations and are suitable for manipulation of freight on land or in air (helicopter transport).

Transport nets are made of high quality polyester and are suitable for land and air transport of freight. They can be used for fixing freight onto pallets for air transport.

Nets and other equipment are produced in standard dimensions, special dimensions are available on request.





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S&T Slovenija Defence Programme

S&T Slovenija is the leading provider of high-performance IT solutions and system integration in its region. The company is setting standards for the future by offering a wide range of solutions, technologies and products for information support in military operations. The company's information systems for the military industry ensure top combat readiness and defence security. In 2007, S&T Slovenija formally founded the Military Programme Department aimed at developing solutions for the defence industry, specifically for information support in various activities of the Slovenian Armed Forces.

Slovenian Armed Forces are therefore guaranteed a reliable and secure exchange of structured electronic information all the way from the reconnaissance to the highest ranks of military command structure. S&T Slovenija has clearance to handle various data and documents, including NATO confidential information.

In the Adriatic region, S&T Slovenija is a Systematic authorized representative. S&T's range of products includes military computer equipment by Login, GD/Itronix, Panasonic, Blazepoint and BFI Optilas, which has been customized for use in extreme conditions.

Projects & Products

PDS (Peripheral Device Server)

The Peripheral Device Server integrates different military vehicle information and communication systems. It communicates with different systems by using various standards throughout the internal vehicle network or serial connections. It serves relevant data to personnel inside the vehicle or enables communication between vehicles by utilizing the tactical radio communications network. The PDS is currently being developed for Patria AMV 8x8, Steyer Pandur 6x6 (Valuk), and Otokar Cobra CBRN vehicles in use by the Slovenian Armed Forces.

Soldier's Communication and Information System

Soldiers on the battlefield today need information that is derived from data, distributed through fast digital networks and gathered by advanced sensors. The new soldier's equipment kit allows each unit to share real-time information with other units, coordinate movement and react to battlefield conditions quickly and accurately. Network-centric warfare is a relatively new concept that unifies all the advantages gained by other elements of the newly developed digital components.

SitaWare Plug-ins

S&T is developing small add-ons and plug-ins to implement specific functionalities that are requested by customers. These add-ons expand the functionalities of the existing C4I COTS tactical solution provided by the Danish Systematic Engineering.

UMO – Mortar Fire Control System

The UMO application significantly improves command and control of mortar fire, leading to improved speed and accuracy of aiming. The modular design of the application reduces complexity and allows easy extensibility. Every module functions independently and communicates with other modules through a separate radio communication system. The individual modules can be activated or deactivated according to the role of the application user in the hierarchy of the mortar company. The solution is based on the MIP C2IEDM data model.



TMS – Transport and Movement of Motorised Vehicles and Convoy Systems

The TMS application delivers the capability to record key data on vehicles and convoys, to plan their positions and movement, and track their physical movement using the GPS and mobile computing platforms in the vehicles. The system supports data collection on vehicle movements, saves the information about the vehicles in the system ADAMS C2IEDM and in the LOGFASS format, and also recognizes the vehicle's condition. It notifies route planners of possible detours and uses the systems to track vehicles.

VBS2 Virtual Battlefield System (SOP trainer / Process modeler)

S&T Slovenija consults, installs and maintains the VBS2 simulator – a fully interactive three-dimensional simulation system focused on small unit tactics and training of the operational procedures up to the company level. It is suitable for a wide range of training scenarios in a chosen simulated environment. Units use it to speed up their reactions and improve the organization of activities. Applications of VBS2 include, among others, mission rehearsal, tactical training up to combat team level, fire support, navigation, mission simulation and training in an urban environment.

S&T Slovenija developed a training environment focused on target management. The visually simulated environment enables the targeting process to be analyzed and modulated at the level of a motorised platoon. Multiple teams can train at the same time in the simulated environment, which significantly reduces the costs of use in the field and the duration of operations.

C2IEDM database integration projects

In order to provide secure and reliable transfer of information, all communication between applications is handled by custom software developed specifically for these systems. All applications communicate with the C2IEDM database, where they acquire the necessary information about the objects they deal with.

Command and control on the battlefield system capabilities include transfer of own-force data, intelligence data and less complex orders, mortar fire support coordination and support for Slovenian Armed Forces on missions abroad.

Armoured Modular Vehicles 8x8 – The objective of the project is a seamless integration of weapon and

sensor systems present in the AMV 8x8 vehicles. Integration of these systems is performed against the IS PINK system using the vehicle's communication network to distribute the data.

CBRN Recon vehicles – Integration of chemical sensor equipment, connection to a common military computer system according to the MIP standard.

IT support for Slovenian Armed Forces

S&T Slovenija provides information support for the Slovenian Armed Forces. It also organizes seminars and participates in the implementation and maintenance of the C4I/C2I systems. Our experience and extensive knowledge from the military field make S&T Slovenija the best partner when you are looking to outsource information services and support in the region.

Core Competencies

Extensive domain knowledge

In addition to top level IT specialists and developers, S&T also employs people with military background and ex-military personnel with over 30 years of combined experience.

In-depth knowledge of C2IEDM model

S&T Slovenija is active in the Multinational Interoperability Programme (MIP), an effort to deliver guaranteed interoperability of information to support combined joint operations. It is also participating in the DMWG group by performing in the information engineering discipline known as Data Modelling.

GeoSpatial information Systems – Extensive knowledge of ESRI GIS, Teleplan Maria GIS and Custom Mapping and navigation engines.





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Rescue and environmental products for military applications

Sava low pressure maxi cushions are an excellent choice for towing and recovery operations. Up to 2,10 m tall and lifting capacities of 9 t (each) makes these bags the ideal choice when recovering downed aircraft, large trailers, rail cars or anything that requires heavy lifting with minimum concentrated lifting force.



Medium-pressure heavy lifting air bags can be inserted under objects with as little as 2" (50mm) clearance. Capacities up to 11,902 kg. Use for heavy load lifting, shifting, leveling, or as padded supports.



High pressure lifting bag – Flat bag - for heavy-duty, low profile heavy lifting, emergency rescue, HAZMAT management or industrial use. When the bag is being inflated, it does not take a typical, ball shaped form, due to the restraints in the inside of the bag. Instead the bag keeps a flat shape (picture below). The flat surface of the lifting bag ensures perfect stability when used, and enables the use of two or three bags of the same dimensions at the same time, which results in the increase of the lifting height.



Sava Inflatable Shelters – Applications for Sava shelters are almost unlimited. They are commonly used for:

- Protection from the elements,
- as decon shelters in case of hazmat accidents,
- storage for hazardous materials and protection from the elements,
- incident command center,
- storage of various ordinance and protection from the elements,
- activities in connection with crime scene investigations,
- first aid center,
- mobile hospital (in army),
- as a canteen when conducting different types of operations.



Interceptive tanks - Double-layer, rubber-coated polyester fabric tanks are chemical and oil resistant. The inflatable collar floats and lifts as the fluid level rises. Storage tanks are very compact and light-weight for easy storage. Long service life and wide temperature use range makes these tanks ideal for emergency interception of hazardous liquids or water storage for fire fighting as well as many other uses.



Mobile decon units - For prevention of hazardous spills when tanks are filled or emptied. They are also used for decontamination rinse receptacles. The inflatable collar floats and lifts as the fluid level rises.



Rubber tanks - Closed rubber storage and transport tanks can be used as storage and transportation receptacles for various chemicals and liquids including water. Tanks are pillow shaped with two nipples: one on top for filling and deflation; and one on the side for filling and emptying.



Single person shower unit. Hazmat, incident site, remote locations. Sava Single Person Shower Unit is a lightweight, compact, transportable shower ready for immediate use. Small and light enough to be carried on a backpack. Fire resistant materials available.



Inflatable platform - recovery - total stability use as raft, use as work platform, mud flat recovery, ice rescue.



Inflatable stretcher - Functions as a conventional stretcher, with padded grip handling facilities. Lifts by helicopter, out of difficult trouble spots. Certified to lift up to 350 kg. Hauls in the horizontal or vertical plane and can be rigged to a 'Breeches Buoy' ship-to-shore transit system. Toboggan over ice, snow, marsh grass, sand, mudflats, gravel and swamp. Floats with excellent stability. Trials by land and sea rescue personnel prove beyond doubt its great potential as a SAVER OF LIFE AT SEA: Can be used in flood situations, oil production platforms, ice rescue, cave and pothole rescue, police, underwater search units, etc.





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Services and Products



System Integration & Development

- Development
- Testing



Artillery Weapon Parts

- Barrels
- Breech Rings and Breech Blocks



Armor Systems

- Torsion Bars
- MBT M55S
- Driver Training Tank



Services

- Service of Armoured Vehicles
- Service of Artillery Equipment

System Integration & Development

Based on rich experience of production of light armored vehicles, artillery systems and main battle tanks, we are offering development and system integration of various equipment in uniform system, tailored to customers needs.

In the field of development and system integration, we are offering:

- Planning, design and analysis of system configuration and integration of weapon system and vehicle.
- Production of upgraded/integrated armored systems.
- Testing of integrated weapon-vehicle system according to AVTP and other military standards.
- Training and customer support.

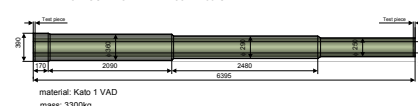


Artillery Weapon Parts

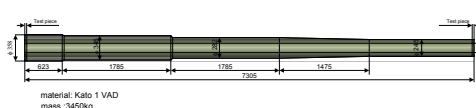
Our rich experience in the development of materials for artillery barrels, technology of steelmaking, forging, heat treatment and machining place us among the leading producers of rough-machined and heat treated barrels as well as other highly stressed parts of artillery weapons.

- We deliver finish machined and hydrostatically tested smooth barrels, breech rings and firing pins, etc. for mortars from 50 mm to 120 mm calibre in conformance with customer drawings and technical requirements. These products can be also delivered as rough-machined and heat treated only.
- We deliver barrels, breech rings and breech blocks as rough-machined and heat treated for aircraft cannons and anti-aircraft guns, recoilles guns, howitzers, guns, tank guns and gun howitzers from 20 mm to 203 mm calibre.

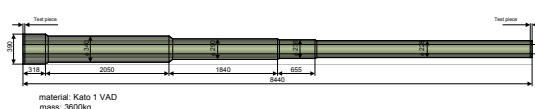
BARREL FOR GUN-HOWITZER 155mm/39 CALIBRE



BARREL FOR GUN-HOWITZER 155mm/45 CALIBRE



BARREL FOR GUN-HOWITZER 155mm/52 CALIBRE

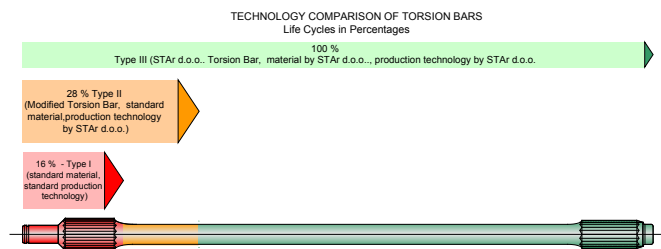


Torsion Bars

We produce special torsion bars and torsion tubes which are used for combat systems as for ex. tanks, armoured carriers, howitzers, guns, rocket launchers, etc. They are made of special steels with own developed technology in compliance with internal regulations and customer requirements.

Main characteristics :

- length 500 – 2500 mm ,
- max. diameter 100 mm ,
- max. torque 60 kNm .



Armor Systems:

MBT M55S, Driver Training Tank M55S USP

Key elements of our T55 upgrading are:

- Increased fire power
- Modern optical and electronic system
- Increased ballistic protection
- Upgraded communication system



Service and Maintenance

- We implement servicing, reconstruction and upgrading of artillery weapons and armoured wheeled or caterpillar vehicles together with armament, the communication and vision system.
- We are carrying out a regular maintenance service of Valuk 6x6 vehicles for SA.



About the Company

Our development and production are based on highly educated and experienced staff, modern equipment for development of products and technologies, quality material base, that has been upgraded with high-end thermal treatment and our own laboratory for non-destructive testing and calibration which is accredited according to international standards. Our excellence is proven by standards ISO 9001 and 14001 and long and close cooperation with Slovenian Army, research institutions and companies in Slovenia and abroad.



Thyia Technologies

Thinking for your security and safety

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Thyia Technologies (THYIA d.o.o.) is an SME, a spin-off of Thyia Technologies Sarl, Iskra Zascite d.o.o., and Industrial Electronics SPIN d.o.o. Continuing the previous R&D activities of Thyia Technology Sarl in Information and Communication Technologies (ICT), THYIA remains dedicated to ensuring & enhancing the security and safety of ICT Networks, Data Protection, Civil Protection (CP), Critical Infrastructure Protection (CIP) i.e. Electricity, Gas & Oil, Transport, Telecommunications, Water, Agriculture, and Finance. Building

on THYIA's strengths of competence, technology and research, the aim is to contribute with new product solutions for homeland security and to be involved in shaping European security. Strategic product development is focused on future home networks and intelligent systems, i.e. the smart environment. THYIA is working with leading European companies and research centers on Smart Grids, environments and eco-system for future home and commercial convergent networks. The new products are supported by an



CONSULTING

Outsourcing based on knowledge and understanding, and many years of experience is a business strength that improves performance and leads to advantages over competitors. Our broad competencies and range of capabilities are maximizing opportunities, avoiding unnecessary risk and offering clients and partners more added values at the European level. All of this is embodied in the client's projects, technical studies, optimal use of available technologies, and system integration.



RESEARCH & DEVELOPMENT

Our expertise is in conducting collaborative multidisciplinary and integrative state-of-the-art projects to implement innovation in ICT and new emerging technology product solutions. Through increased research cooperation, collaborative projects and activities, duplication of effort is avoided and synergy is achieved.

COLLABORATIVE

INNOVATIVE

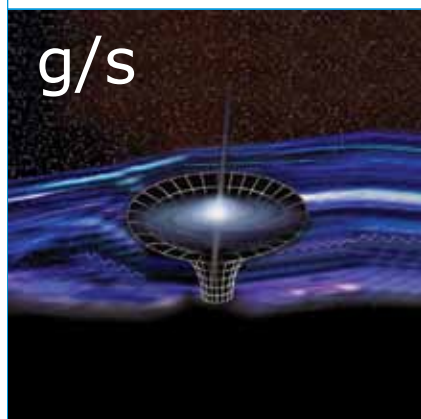


INTELLIGENT

CHALLENGE

NETWORKING

Networking capabilities is growing rapidly. Complexity and functionality of the IT and Telecom environment is changing very fast as well, requiring a high level of knowledge and expertise. Networking with key European research institutions and companies is the way forward to meet the challenges of any complex and high-technology project.



Engineering design is determined by the client's unique requirements. With professional engineering, intelligent management, efficient installation, innovative construction, testing, monitoring and other support services, the products, systems and services we develop have significant competitive advantages. The network products and solutions incorporate state-of-the-art and new technologies provided by engineers, experts and other professionals.

ENGINEERING



intensive research and prototyping activities under TITRES (Technology Innovation in Telecommunication for Rational Ecological Systems) project, and new embedded and smart metering systems (FP7 ARTEMIS projects pSHIELD and ME3GAS).

In the area of emerging technologies, THYIA is facing up to the latest challenges in R&TD: FP7 projects (OMEGA, IMSK, ORPHEE) in various fields such as future intelligent home networks and civilian and military sensor networks with an enormous number of nodes that will be used for surveillance and other military applications. The company is working on the latest C4ISR development for networks and systems. In the area of national military networks for MoD Republic of Slovenia, THYIA is actively working on the development of new network elements jointly with other national and European partners.

R&D Research & Development

Areas of expertise:

- GSM/GPRS/EDGE, UMTS, IPv4 & IPv6
- TETRA & TETRAPOL
- C2, C3, C4ISR
- RF & Microwave Technologies
- Beyond 3G, 4G Technologies
- WiFi, WiMax, OFDMA, xDSL, DVB
- Bluetooth, UWB, ZigBee
- PAN, LAN, WAN
- Wireline & Wireless Communications
- Software & Hardware Architectures
- P2P communications
- Middleware, Protocol Stack
- Surge Protection Devices
- Lightning Protection Systems
- MIMO
- EMC, EMI
- Software Defined Radio
- Risk Management Platform
- Homeland Security
- Ad hoc & Mesh networks
- Security, Thrust, Privacy issues
- Encryption
- Pervasive, Ubiquitous Computing
- Sensors and Biosensors
- Sensor Networks
- Standardization: ETSI, 3GPP, ITU

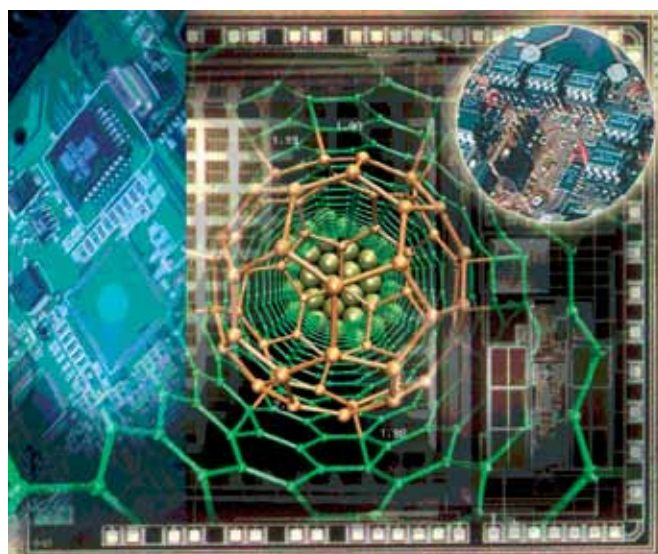
Wireless Grid is a one of our key R&TD strategic goals. Developing new services and applications for mobile users is a challenging area of research that we would like to share with our customers and partners.

The Wireless Grid system includes P2P Computing and Web services, ad-hoc and wireless networking that should offer an adaptive network offering secure, inexpensive, and coordinated real-time access to dynamic, heterogeneous resources, potentially traversing geographic, political and cultural boundaries, while still maintaining the desirable characteristics of a simple distributed system, such as stability, transparency, scalability and flexibility.

THYIA offers powerful outsourcing and cost-effective facilities through its own network of researchers, professionals and students. THYIA's clients gain competitiveness by close collaboration with our experts, who have many years of experience in R&TD (Research & Technology Development). We are very active in many international committees and forums. With our world reputation in the fields of our expertise, THYIA's clients receive excellent support in all aspects of R&TD projects.

Thyia's message:

Sharing our expertise, knowledge and experience is a route to advanced and innovative R&TD projects that are your primary interest today or in the near future. We are open to collaboration in joint projects or as a partner in your project. Call us to discuss opportunities for collaboration.





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TRIVAL ANTENE d.o.o. main activities are:

- development and production of antennas, masts and accessories for wireless telecommunications;
- development, engineering, project-making and consulting in the field of wireless telecommunications

TRIVAL antennas made of composite materials (polyester and epoxy resins reinforced with fibreglass) were first produced back in 1965, on the premises of the SVIT Kamnik company. Today Trival Antene d.o.o. has on its list more than 200 different types of antennas, antenna masts and accessories. Apart from military items, the company supplies products for civil professional use (marine applications, industry and organisations, ministries, radioamateurs, mobile comm's, etc.)

TRIVAL Co. products are subdivided as follows:

- military antennas (HF, VHF and UHF antennas, stationary, tactical and mobile antennas),
- antennas for marine applications (MF, HF and UHF antennas for vessels and yachts),
- antennas for civil-professional communications (HF, VHF and UHF antennas, stationary, mobile antennas and antennas for hand-held radios, omnidirectional di pole and co-linear antennas, directional yagi and log-periodic antennas),
- antenna masts (tubular sectionalised and winch driven telescopic glass-fibre masts from 5 to 18 m)
- antenna accessories (cables, connectors, etc.),
- custom designed antennas (antennas for EMC measurements, etc.)



Antennas

The TRIVAL company develops and produces military antennas in HF, VHF and UHF frequency range for tactical transportable, mobile or stationary use. The antennas are whip-type monopoles, omni-directional or directional antennas (yagi or log-periodic type).

They are usually made of composites (epoxy or polyester, glass-fibre reinforcement), with stainless steel metal joints. All antennas for military use comply with MIL-STD-810F.

Antenna masts

TRIVAL antenna masts may be divided into two types: tubular sectionalised and telescopic winch driven masts. All masts are made of composite materials, up to 18 metres high. All mast types are intended for tactical use with included - guying accessories kit. Telescopic masts are also suitable for mobile use (including mounting kit accessories).





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We are an Enterprise with more than 50 years of history and the biggest composite materials producer in region. An important part of our production program is a ballistic protection program, which includes the following products:

- ballistic helmets
- antiriot protective police helmet
- bullet-proof vest
- hard armor plate for vests
- ballistic shields
- antiriot shields
- ballistic plate for vehicles

To achieve the best possible combination of light-weight, ballistic resistance and maximum comfort, Veplas uses different fibers (aramid, PE, Carbon, ...) and matrix systems.

Veplas R&D department brings new materials (nano-materials, ...) and technical solutions into production process to increase quality level of ballistic protection.

We are a producer of lever plates for armored and other vehicles. Plates are made from various ballistic materials of various thickness and various protection. Plates can be cut according to customer's demands (we use 3D water-jet). We can mould not only the plates but also 3D shapes.



ballistic plate for vehicles



ballistic military helmet



antiriot protective police helmet



hard armor plate for vests



bullet-proof military vest



bullet-proof police vest

As an aerospace, military and automotive industry supplier, we constantly improve our processes. Our technological capacities include the following technological procedures:

- **Automatic Cutter** for 2D material cutting
- **Resin transfer moulding (RTM)** with derivatives **VARTM** - Vacuum Assisted Resin Transfer Moulding; **VI** - Vacuum Infusion; **RI** - Resin Infusion; **RFI** - Resin Film Infusion; **BVARTM** - Blow Vacuum Assisted Resin Transfer Moulding
- **Bag Moulding (BM)** with derivative **BBM** - Blow Bag Moulding
- **Hand Lamination And Spraying**
- **Sandwich Technologies**
- **Filament/Pool Winding** for tubes
- **Autoclave**
- **Clean Room** (monitoring of surroundings)
- **A Robot to apply gelcoat**
- **3D Water Jet** (cutting ages)
- thermal pre-processing and post-processing of metal (treatment furnace)
- **deep drowing** of metal (press 1000t)
- **tool making** (production of models, moulds and other tools for production of composite materials)

Please, visit our website www.veplas.si for a comprehensive presentation of our company – welcome!



3D water jet cutter



Autoclave



Robot to apply gelcoat



furnace for heat treatment



hydraulic press 1.000t



2D cutter



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Nato Stock Number: 4610-42-0000085





Chamber of Commerce
and Industry of Slovenia



The Chamber of Commerce and Industry of Slovenia - CCIS

- With over 150 years of tradition, voluntary membership, and by far the largest number of members, the CCIS is the most influential business association in Slovenia
- Offering the collective wisdom and rich experience of more than 100 experts and specialists
- Uniting commerce, industry, tourism and service sectors in Slovenia
- As a member of Eurochambres and the ICC, as well as other international associations and organisations, the CCIS is part of an extensive international network with innumerable contacts
- References and experience in the realisation of EuropeAid programmes such as Asia Invest, AL Invest, Gateway to Japan, Executive Training Programme for Japan and Korea...

At Your Service

Chamber of Commerce and Industry of Slovenia – CCIS

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Our staff are at your service and will provide you with all the information you need!



SLOVENIAN DEFENCE INDUSTRY CLUSTER

Grozd obrambne industrije Slovenije (GOIS)

The Slovenian Defence Industry Cluster (Grozd obrambne industrije Slovenije – GOIS) is a business association based on the economic interest of our members. It was established in 2008 and brings together Slovenian suppliers of defence, security and protection products and services.

The Cluster assists its members with the creation of optimal conditions for the research, development, production, testing, maintenance, trade and marketing of their products and services in the areas of defence, security and protection.

We offer services such as the following:

- Promoting Slovenian defence & security industries in Slovenia and abroad.
- Promoting and creating opportunities for the international cooperation of Slovenian companies.
- Assisting via cooperation with international defence & security industries and their associations.
- Assisting foreign companies when seeking to establish contacts with Slovenian companies.
- Assistance and consulting services for offset obligors.

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