

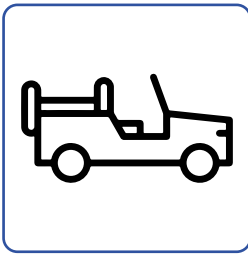
DEFENCE

Multi-role Armored vehicle



GICAT

The French land defence and security
industry association



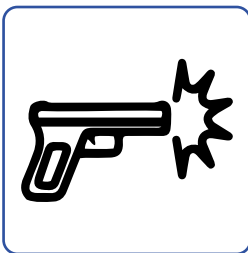
VEHICLE ARCHITECTURE

This capability covers vehicle architectures and systems integrators, as well as engineering, design, technical control and modernization. It also includes technical simulators and e-documentation (driving, shooting and maintenance assistance systems).



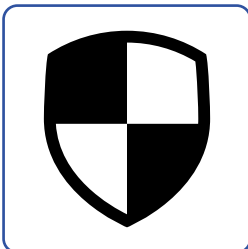
MOBILITY

The ability to manoeuvre in harsh environments (sand, rock, damaged or obstructed roads), as well as to maintain operative and strategic mobility matching the imperatives of projection and theatre control. New propulsion and hybrid technologies open up a wider range of engine options in a context characterized by drive line selection (kinematic chain, transmission, tracks, drive wheels) reflecting the requirements of utilisation, projection, deployment and cost of maintenance.



WEAPONRY

This category includes armament (turrets, weapons, supports), munitions (shells, rockets, missiles) and optical/optronic devices for day and night vision.



PROTECTION






The versatility of the threat, whether it is conventional (direct shot of any calibre, hollow-charge munitions, core-generating warheads, guided effects weapons) or improvised (IED) calls for new responses in terms of concepts and equipment. Preventing detection, interfering with acquisition, jamming the enemy's sensors, deceiving, intercepting or neutralizing munitions, blocking or limiting their effects, are the main improvements of the protection mission. The ability to handle blast effects, additional protection kits and on-board detection systems contribute to optimizing the armoured platforms' survivability in a hostile environment.








COMMUNICATION INFORMATION SYSTEMS

The intermeshed, fluid, versatile nature of modern combat requires information control through C2 (command & control) systems, communications, localization/navigation and integration of battle management systems (IFF, «blue force tracking» and platform cooperation). The issues of coordination and management of embedded subsystems (vetronic) play a decisive role in terms of structure dimension as their number is constantly increasing, calling for new remote management as well as optimization at the crew and command level, for each platform. Electronic and cyber war aspects are imperatives as the threats against embedded software and communication networks expand.

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APPRES INDUSTRIES

APPRES Industries belongs to groupe Energie Métal.

This French family group is independant which guaranties its security and profitability.

APPRES Industries is SME in MRO mainly for land vehicules :

- Repair, retrofit
- Obsolescence management
- Supply chain support (spare parts for vehicules mainly manufactured in France)

We guaranty Quality, Traceability and OTD (Land, Sea, Air):

- Sourcing
- Logisitcs and storage
- Kitting

Groupe Energie Métal is also SME in manufacturing of metallic parts for Defense, Aerospace and Energy sector (european leader in waterjet cutting, sheet metal working).

The whole group is certified ISO9001.

MRO activities (APPRES Industries) :

- Repair and overall maintenance service
- Tank specialist on Engines and Gearbox (GIAT vehicules)
- Retrofit Defender Land Rover and P4 Peugeot
- Logistic Support, spare parts
- Obsolescence management : redesign, remanufacturing, resourcing.
- Technical assistance (internal workshop and client sites)

Manufacturing activities (JET CUT, SOTIAG) :

- European leader in Waterjet cutting
- Sheet metal working : structure, cabin interior
- Weapon environment
- Armour composite solutions : cutting, milling
- Armour metal solutions : cutting, milling
- Remanufacturing based on drawing

Skills in Manufacturing and Maintenance :

- Supply chain metallic raw materials
- Waterjet cutting and stripping, laser, sawing
- Forming
- Welding (robot, manual)
- Assembly
- Surface treatment and painting
- Maintenance on vehicules



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VEHICLE ARCHITECTURE	MOBILITY	WEAPONRY	PROTECTION

ARQUUS



Arquus, a French century-old company and European leader of protected land mobility, offers a complete range of tactical vehicles, remote-controlled weapon stations and tailored services. The success of Arquus' vehicles and systems is mainly due to their ergonomic architecture and robustness, their excellence regarding mobility and protection, and their reliability proven in theatres of operations throughout the world.

Arquus, a key partner for armies with a complete range of vehicles and services

As the historical partner of armies since its very beginning, Arquus designs tailored solutions to meet its customers' specific needs with a complete range of tactical vehicles from light to medium categories.

- As part of the French Scorpion program, Arquus is putting its mobility solutions expertise at the service of the temporary consortium for GRIFFON and JAGUAR, along with its new remote-controlled weapon stations range Hornet.
- In the 20-tonne (GVW) category, Arquus offers the VAB MK3, the heritage of 40 years of experience.
- The light tactical and armoured vehicles range includes the FORTRESS MK2, BASTION, SHERPA and VLRA based on 4x4 chassis and available in many variants providing all kinds of missions as patrol, weapon systems or homeland security.

Innovation at the core of our DNA

Technological innovation is part of Arquus' DNA and R&D covers first its core business: vehicle architecture.

Driven by the ambition to serve the operational needs, Arquus explores four technological fields focusing on a real strategic and operational advantages: robotisation, energy, survivability and platform digitisation. The HORNET remote-controlled weapon stations range or the vehicle SCARABEE (the company's best innovations) make this R&D approach a reality. Crammed with technologies, the SCARABEE benefits from Arquus' expertise regarding mobility with its 2-ground clearance levels or minimal steering radius enabling the crab motion.



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BELINK SOLUTIONS

ELECTRONICS IS OUR DNA

BeLink Solutions is a centre of excellence in Electronics. With more than 40 years of experience in PCBA & electronic systems manufacturing, our company is at the forefront of quality, technology and production in this industry at a worldwide scale.

OUR COMMITMENT, THE EFFICIENCY OF DEFENCE INDUSTRY

BeLink Defence & Aerospace.

BD&A is our dedicated business unit for Defence, Aeronautics, Security & governments solutions.

We deliver a large scope of high-level expertise, from co-design, prototyping, industrialization to manufacturing & assembly of electronic boards in small, medium, and large series.

BeLink Solutions is also one of the most advanced companies in Printed Electronics.

In our factory located close to Paris (1h30), we provide a large range of services such as innovation, studies, purchasing, climatic stress-tests, subgroups & end-products assembly from basic to complex systems & MOC.

A new world requires a new vision.

Automotive industry is our historic core business. We are certified IATF 16949 & compliant with the most demanding certifications in electronics. BeLink Solutions is bringing to the defence industry a new offer of services based on a partnership approach: our clients are in the heart of our organization, and we deliver them a high level of international competitiveness.

To cope with the new international challenges, our industries need a new vision.

BeLink Solutions duty is to fulfil our clients' expectations by offering its expertise based on SERVICES, FLEXIBILITY, PERFORMANCE, REACTIVITY, COST EFFICIENCY & SERENITY.

Mobilities are our core business.

We have a large expertise in embedded electronic devices & systems (calculator units ECU, high-performing computers, LED lighting (int./ext.), battery management systems (BMS), electronics for e-powertrain, communication systems...)

We produce your electronics equipment that you can rely on!



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BERTIN TECHNOLOGIES

BERTIN TECHNOLOGIES is a French industrial group in high-end instrumentation that designs and manufactures, in France and in Europe, measurement, observation and detection systems and instruments for critical or scientific applications. Every day, Bertin Technologies pursues technological advances in the fields of Defense, Nuclear, Space, Big Science, Life Sciences and Health.

The modernization of multi-role armored vehicles is a critical challenge for the Armed Forces worldwide. These vehicles play a vital role in military operations by protecting troops, providing effective fire support, and ensuring mobility on the battlefield. To meet the challenges posed by new threats and technological developments, these vehicles need to be equipped with state-of-the-art solutions for enhanced protection, mobility and situational awareness.

Bertin Technologies provides optronic observation and surveillance solutions for critical applications requiring optimal optical performance and enhanced day and night vision. It offers a complete range of low SWaP thermal camera modules for integration into complex optronic systems to meet the needs of various applications including land Local Situational Awareness (LSA) and Driver Vision Enhancement (DVE).

Bertin Technologies is also the European leader in CBRN detection, identification, and monitoring, by offering a complete range of solutions covering the full spectrum of threats. It offers reliable, early-warning solutions for armored vehicle protection, including internal and external detection capabilities. It also provides CBRN intelligence capabilities such as remote chemical detection, drone porting and radioactive source tracking. In addition to detection solutions, Bertin Technologies supplies specialized CBRN command and control systems that enable operators to monitor and control their CBRN environment quickly and efficiently.

Our state-of-the-art detection systems are currently used by NATO armies, including Italy, France and Sweden.



👤 Luc RENOUIL | Strategic Development & Institutions

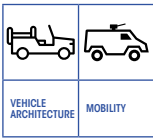
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BERTRANDT SAS

BERTRANDT, major player in mobility in Europe.

For 50 years, BERTRANDT has distinguished itself by its commitment and expertise in the service of Land Defence. With 14,500 dedicated employees, BERTRANDT plays an essential role in the development of complete vehicle subsystems, systems, products, and engineering to meet the complex needs of its customers. The BERTRANDT experts are involved at all stages of the projects, from the pre-project phase to industrialization, by delegation of operational services and global project management. Thanks to its engineering capabilities and its recognized business expertise, BERTRANDT is able to meet the strategic challenges of development and operational investment of land / air forces, in all areas of mobility.

Military/Civil Duality of Land and Air Mobility of the Armed Forces

BERTRANDT designs, develops, industrializes all or part of civil and military vehicles, and has the ability to intervene on heavy / light wheeled vehicles and on tracked combat machine functions:

- Organic domain: motorized chassis, cab, electronics
- Business / Technology: system engineering, electronics, software, mechanics, simulation / CAD, data science, AI, etc.)
- Method domain: Complex project management (Quality / Cost / Timing), life cycle control (from design to in-service support including industrialization) until the after sales.

The mobility expertise of BERTRANDT

BERTRANDT supports its customers in the customization of its means of action applied to land and air mobility:

- **Hybridization / Electrification / Energy Management**
Development, integration and development of hybridization solutions and all system components.
- **Adaptation**
Short loop integration of organs / components / functions on an existing basis (performance improvement, local sourcing, obsolescence management, etc.)
- **Driver assistance**
Definition, development, and validation of driver assistance functions (ADAS) in a complex environment composed of numerous data sources (Radar, Lidar, Camera, etc.).

Implementation of AI in real-time management of use conditions with the objective of autonomous driving.



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bertrandt



BREN-TRONICS INTERNATIONAL SOLUTIONS



BREN-TRONICS: Pioneers in Advanced Military Power Solutions.

With over five decades of dedicated expertise in the design, manufacturing, and management of sophisticated lithium-ion rechargeable batteries, Bren-Tronics stands as a stalwart in meeting the diverse needs of military applications. Continuously advancing, our company remains committed to innovation, ensuring an optimal balance of power, energy, weight, and safety to meet the evolving demands of military vehicle operations.

Brenergy™ Lithium-Ion 24V 6T Vehicle Battery

Traditional lead acid battery arrays, sometimes comprising up to 20 units, fall short in satisfying the escalating power requirements of modern combat vehicles. The spatial demands and weight burdens imposed by these batteries encroach upon critical mission requirements and strain platform capabilities. In response, Bren-Tronics has engineered a 24V Lithium-ion 6T battery, meticulously crafted to military standards. Replacing a minimum of two 12V lead acid batteries, our 6T solution significantly reduces weight and volume while surpassing onboard power needs. Featuring rapid full-charging capabilities within an hour and accommodating multiple loads, our battery supports prolonged silent watch missions when deployed in parallel configurations.

Brenergy™ High-Voltage Lithium-Ion Battery for Vehicle Hybridization

Bren-Tronics introduces a high-voltage hybrid battery module for military platforms, facilitating swift and silent vehicle movement for rapid response and discreet approaches in critical situations. With a 30kWh capacity, liquid cooling, and Canbus monitoring, this battery epitomizes efficiency and reliability in demanding operational environments.

Safety-Embedded, Intelligent Battery Solutions for Enhanced Cost Efficiency

Bren-Tronics batteries integrate multiple electronic protections and monitoring systems, including CAN Bus data access, ensuring real-time tracking of battery parameters. With a lifespan extending into thousands of cycles and maintenance reduced to negligible levels, our batteries deliver unparalleled longevity and operational efficiency, ultimately driving down total cost of ownership.

Choose Bren-Tronics for cutting-edge power solutions that empower military operations with reliability, efficiency, and innovation.

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DATAHERTZ

Multirole Armored Vehicle as a part of the Network

Through various partnerships and being the exclusive distributor for France of Persistent Systems **MPU5 Wave Relay® radios**. DataHertz is committed to promote interoperability between, ground vehicles, UAVs, UGVs, and USVs in mobile ad-hoc network (MANET) to enable the unmanned systems to communicate and coordinate effectively within a large range of C2.

By enabling interoperability, dismounted soldiers, UAVs, UGVs, USVs and aircrafts can work together to perform a variety of tasks, such as surveillance, reconnaissance, SAR or striking operations.

An MPU5 Wave Relay® radio system is built on 3x3 Multiple Input Multiple Output (MIMO) technology allowing extended range and increased throughput in complex urban, subterranean, and maritime environments - both line-of-sight (LOS) and non-line-of-sight (NLOS). As an example, an Air/Ground communication between vehicle and aircraft can be established up to 125 Miles.

Stream HD video:

The MPU5 Wave Relay® radio nodes enable you to encode and stream live audio and video by directly connecting HD and SD camera systems via analog, digital and IP video inputs at resolutions ranging from 320x240 to Full HD 1080p and 720p.

Voice, data and video Network:


An MPU5 Wave Relay® MANET allows a group of mobile users to communicate continuously and efficiently without the need for fixed infrastructure. Every MPU5 (Wave Relay® radio node) communicates with each other, forming a true peer-to-peer network with no master node and a maximum bandwidth of 150Mbps.

Wave Relay® Display:

Specifically designed for use with autonomous platforms and information sharing through a C2, the MPU5 Wave Relay® display provides a rugged display interface between operator and vehicle to control your UAV or UGV. Dual thumb-sticks provides control with pin-point accuracy, whilst physical configurable shortcut keys can be programmed to access the most frequently-used commands.



 Olivier ESCAFFRE | Business Development Director

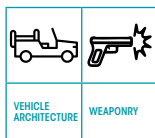
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DELMON GROUP

Delmon Group specializes in rubber solutions for anti-vibration and sealing systems.

The company's expertise includes elastomer and bonding formulation, rubber and silicon molding, fire seals, metal machining, and metal-rubber parts. The company operates manufacturing plants in France, Albania, and Spain, with a machining plant in Tunisia. Delmon Group serves the industry, aerospace and defense sectors. Production in the defense sector began in 1972, marking the company's commitment to delivering tailored solutions that meet demanding industry standards.

Anti-Vibration Solutions

Reducing Vibrations, Enhancing Safety

Delmon Group offers anti-vibration solutions designed to reduce vibration waves, minimize noise disturbances, and improve comfort. These products are engineered to withstand harsh conditions and rigorous safety requirements. Delmon Group's expertise in elastomer formulation and metal-rubber part manufacturing ensures high-performance solutions that prioritize safety and reliability.

Sealing Solutions

Precision Sealing for Enhanced Protection

Delmon Group develops sealing solutions to insulate against air or gas leakage, fluid flow, or fire propagation. The company's products offer resistance to external aggressions like particles, hydrocarbon fluid splashes, and extreme temperatures. Delmon Group's fire seals meet ISO 2685-1998 and AC20-135 standards, designed to withstand testing at 1100°C without flame penetration for at least 15 minutes. These seals offer oil resistance and can handle temperatures from -72°C to +200°C, ensuring durability and reliability in demanding conditions.



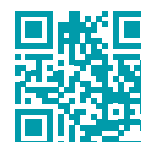
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DESCHAMPS

DESCHAMPS' Mobi-mat® range is dedicated to tactical mobility, ground reinforcement and deployable flooring.

Since 1860, DESCHAMPS develops and manufactures (in France) innovative solutions for very demanding applications. DESCHAMPS operates worldwide and is a reference supplier for leading armed forces such as French, US, German, etc. and also international organizations like NATO/NSPA or United Nations.

Ground improvement mats and temporary roadways Quick Access™ mat

Quick Access™ allows ground reinforcement in minimal time. Thanks to its light weight, it allows fast deployment with minimal resources (team of 4/6) to enable safe heavy-duty vehicle passage and equipment storage. Its particularly resistant design allows long-term use for applications such as roadway for military convoys or disaster response units. Depending on the intended use and mat characteristics, our Quick Access™ solutions can be deployed manually or using a specific mechanical dispenser. Its innovative material allows all types of vehicle traffic, from small vehicles to tracked heavy tanks.



Temporary roadway dispenser Truck Mounted Dispenser, Flatrack™

The Flatrack™ is a roadway deployment modular system which facilitates roadway installation and recovery. This mechanical equipment can fit every military vehicle. Our truck mounted dispenser is user-friendly and allows the deployment of very long roadways in minutes by a small team. Our Flatrack™ can be powered with hydraulic or electrical power directly from the vehicle or by a dedicated thermic generator. It is modular and able to deliver just the necessary roadway sections

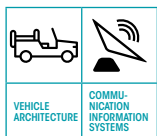
Temporary roadway dispenser Front loader Dispenser, FRLD™

FRLD is a front-loader roadway deployment system. It enables a front-loader to deploy a temporary roadway in minutes. The vehicle driver can operate the FRLD on his own thanks to the hydraulic connections with the system. F.L.R.D can fit directly the vehicle interface or be connected on forks.



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ELNO

When communication is a challenge

Elno is specialized in intercom systems and audio accessories

ELNO is specialized in the design and manufacture of Intercom systems and audio accessories for harsh environments. Historical technological know-how and a strong innovative capacity has made ELNO the privileged partner of defense players, and in particular the French Army, for over a century. The company has a very active research and development department and patented technology.

Product portfolio

Today's flagship products include: the full IP Intercom system, ELIPS, a complete range of bone conduction headsets for use in a wide range of contexts from infantry to main battle tanks (OPTIONE, HOPLITE, VELITE) and multi PTT and control units both for digital and analog communication systems (MICS).

A wellspring of unique French expertise to serve the armed forces

At ELNO, **innovation is hard-wired into our DNA**. We have always sought to stay ahead of the technological curve by constantly harnessing our innovations to best serve our Armed Forces. ELNO's engineers firmly believe that: "tomorrow is destined to be digital". Today, all of ELNO's devices are digital. Intercom systems, PTT accessories, headsets, helmets and more: come and try them out at the EUROSATORY exhibition, Hall 6 - K62.



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VEHICLE ARCHITECTURE	MOBILITY	WEAPONRY	PROTECTION	COMMUNICATION INFORMATION SYSTEMS

EMITECH

A Leading Player in Defense Sector Qualifications

In early 2023, our Montigny le Bretonneux laboratory in Île-de-France was equipped with an exceptional facility for qualifying large military systems (vehicles, radars, drones, etc.) in the electrical and EMC domains. A new testing center houses the largest (27m x 18m x 10.5m) and most recent Faraday cage built in France.

This facility is dedicated to electromagnetic compatibility (EMC) tests, ensuring electronic equipment operates together without interference. Constructed to meet the homologation needs (UN ECE R10) of vehicles and the qualification of large systems, this semi-anechoic chamber features a 40-ton support zone and a large 4.8m x 4.8m door. The useful height allows the deployment of systems up to 9.45m.

The cage includes a turntable with a roller bench for 2- or 4-wheel drive vehicles, simulating speeds up to 120 km/h and winds up to 60 km/h, with a wheelbase up to 6 meters and a load capacity up to 6 tons per axle.

The facility integrates various services to accommodate all current and future powertrains: petrol or diesel combustion engines, micro-hybrid, hybrid and plug-in hybrid, electric, hydrogen.

The resources available for conducting EMC qualification campaigns cover all current requirements from AIRBUS, DASSAULT, BOMBARDIER, NEXTER, ARQUUS, FELIN, VBCI, SCORPION, Caesar, PVP, Spy'Ranger...

A Solution for All Your Needs

Qualification

- Qualify your complete system by integrating all subsystems.
- Qualify your system according to multidomain requirements (military, civil, etc.) at a single location.

Investigation, pre-qualification

- Conduct investigations and adjustments before starting the qualification phase.
- Mitigate risks by conducting the most impactful tests for your system upstream of the final qualification.

Improvement and feedback

- Reproduce observed phenomena on your complete system, not just on a subsystem.
- Identify and resolve disturbance phenomena observed during real operation for a system qualified by subsystems.



Laurent DANJAN | Market manager

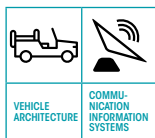
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ENAG



Designer and manufacturer of energy conversion systems

Designer and manufacturer of power electronics equipment for severe environments, ENAG offer a large range of products dedicated to defence applications (On board and Ground). Working closely with our customers, our solutions are developed and qualified according their requirements (thermal, EMC, chocs and vibrations).

Design, Quality, Manufacture & Support

ENAG design, qualify, and manufacture energy conversion systems working in rugged environments for over 70 years. Our expertise in static and dynamic energy conversion is based on the most reliable technologies of power electronics and electro mechanics. Major international companies acknowledge our capability of providing first class service and products, both standard and customized, for intensive use in rugged environments. Used to supply AC & DC power to on board and ground military systems such as weapons systems and communication, our products are renowned for their quality and reliability.

Our sales team, R&D, production, quality and customer services assist our customers during the different phases of their projects, from the initial design through to qualification and commissioning.

Large range of products for onboard applications

The Energy Systems developed by ENAG include battery chargers, DC/DC or DC/AC converters and distribution boxes

Our Power Energy Systems are installed on military armed vehicles. They use different type of power sources: external AC grid, the alternator of the vehicle or the batteries of the vehicle. They can supply power to different onboard equipment with different output voltages (28Vdc, 48Vdc, 230Vac ...).

Connected to the supervision of the vehicle, our systems are able send alarms on the global system status, the batteries or the outputs status.

Mounted on the shock absorbers, our systems are compliant with military vibration requirements.

Our distribution boxes are designed to facilitate the cabling of the different network on the vehicle.

All the products designed by ENAG meet Army requirements and respect the applicable standards (eg. MIL STD, STANAG...) and especially EMC standards (MIL STD 461 ...).



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HENSOLDT IN FRANCE

VEHICLES COMMUNICATION AND PROTECTION

HENSOLDT, a major European player in the defence sector, is present in France through two legal entities, both members of the DITB: HENSOLDT Nexeya France and HENSOLDT France SAS, operating on 15 sites and employing more than 700 employees throughout the country.

In France, HENSOLDT designs, manufactures and maintains in operational condition highly critical electronic products, cyber security equipment and solutions linked to testing, simulation and energy management.

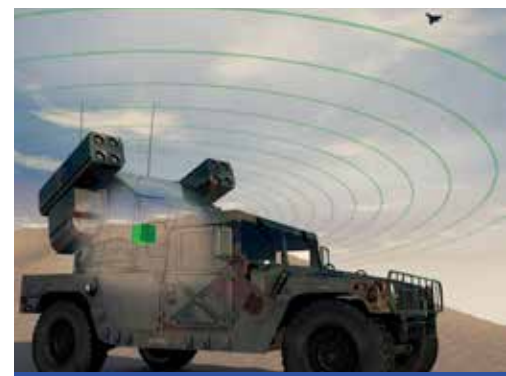
On land, at sea, in the sky or in space, HENSOLDT's activities in France are based on a strong spirit of innovation and contribute to the safety of people and property throughout the world

A FRENCH EXPERTISE IN IFF, CYBERSECURITY AND EMBEDDED CRITICAL EQUIPMENT


HENSOLDT France SAS develops, installs and maintains on-board cryptographic computers, secure data link solutions and a range of equipment in the IFF field, including mode 5 military cryptographic computers, for which it is the sole supplier in France, notably for the Dassault Rafale, and short-range interrogators. Its IFF range is AIMS (17-1000) and NATO STANAG 4193 Ed. 3 certified, guaranteeing total interoperability with NATO and allied countries.

HENSOLDT France SAS's X7 on-board cryptographic computer is a modular cyber security solution providing several encrypting, storage and data securing functions for civil and military purposes. With its X7-PQC project currently underway, supported by Bpifrance, HENSOLDT intends to develop ground-breaking post-quantum technology capable of repelling cyberattacks involving the use of quantum computers.

HENSOLDT Nexeya France has designed and manufactured ruggedised embedded displays and panel PCs for many years, in particular for the aerospace and defence industries. We offer a broad range of ruggedised solutions, from ultra-compact products for embedded helicopter and aeroplane applications to wide-view touchscreens for operational mission management. All of our solutions feature a robust mechanical design, a high reliability and durability (at least 15 years) and are flexible enough to respond to even the most demanding needs.



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INEO DEFENSE



Ineo Defense is a leader in the creation and integration of solutions for Electronic Warfare systems, secure infrastructures, and specialised telecommunication networks for the armed forces

The company is committed to its products and services throughout the total life cycle, from the research stage to operational maintenance in complex environments. An expert in innovation and production of command, surveillance and intelligence systems, Ineo Defense is based in four strategic domains:

- Contributing to national sovereignty and defence of vital interests
- Possessing informational superiority for decisions and actions
- Guaranteeing the success of operational missions in harsh environments
- Ensuring the support of equipment and materiel of the armed Forces

Ineo Defense is recognised as a long-standing player in the integration of mobile operational systems on armoured vehicles.

The system of VAT or Véhicule d'Appui Topographique (Topographical support vehicle) includes the development, provision and integration of embedded topographical sensors on vehicles such as the VT4, the PVP and the VAB VAT. These sensors allow the rapid collection of real data in urban zones facilitating the creation of 3D products for specific needs such as intelligence, contact combat, the protection of troops and determining objectives.

The ACQ system produces maps of urban zones in 3D, completing catalogued 2D data.

Ineo Defense also offers the integration of topographical equipment such as total stations, inertial navigation systems, and operator compartments. The developments associated with Ineo Defense include mission software, of control and adaptation of data for these systems.

Ineo Defense also designs mobile, tactical Shelters which may accommodate the transporter and protect the most sensitive equipment of the armed Forces. These Shelters are destined for software support and may benefit from the ballistic and electromagnetic protection. These mobile technical shelters contribute to the successful functioning of embedded systems and contribute to the security and efficiency of operations in the field!



Yves de THOMASSON | Directeur Commercial & marketing

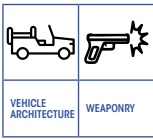
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JOHN COCKERILL DEFENSE FRANCE

Technological leader in multifunctional, high-effect turrets in the 25-120mm range for light and medium weight armoured vehicles

John Cockerill Defense designs, manufactures, integrates and upgrades weapons systems for the full range of 25 to 120 mm calibers. Reflecting the hallmark of the Cockerill® legacy, our weapons systems seamlessly blend formidable firepower with lightweight construction, ensuring both performance and safeguarding capabilities while maintaining air transportability. Modular, these systems are designed to evolve at moderate cost according to the needs of their users

Cockerill®: excellence in high impact light weapons systems has a name – Cockerill

John Cockerill Defense is constantly innovating in order to anticipate the growing and evolving requirements of land armies in terms of polyvalence and mobility, this is the strength of our innovation. These innovations are undertaken with a common objective: to continually develop the capabilities of Cockerill® weapons systems, whether they are new or already in operation, in phase with the evolution of the operational constraints of their users.

Our John Cockerill Defense teams have put in substantial innovation efforts, particularly in:

- the modularity of weapons systems, their situational awareness and indirect firing capabilities,
- their ability to integrate data received from drones,
- the development of simulation and training solutions,
- the integration of anti-tank missiles,
- the choice of using light and robust composite materials



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VEHICLE ARCHITECTURE	MOBILITY	WEAPONRY	PROTECTION	COMMUNICATION INFORMATION SYSTEMS

KNDS FRANCE

KNDS France vehicles: combat systems for today and tomorrow

For more than a hundred years, KNDS France has provided combat vehicles to address the whole spectrum of operations, from high intensity to stabilization and homeland security.

MODERN AND MULTIPURPOSE VEHICLES VBCI was chosen more than twenty years ago by the French land forces as their new 8x8 Infantry Fighting Vehicle dedicated to high intensity engagement.

To address stabilization contexts, KNDS France has developed TITUS®, a 6x6 armoured vehicle in close partnership with TATRA, as a chassis designer. Designed to be deployed in difficult and urban areas, under high threat, TITUS® warrants' survivability and tactical mobility to the 13-personnel squad embedded.

KNDS France: A MAJOR PLAYER IN THE SCORPION PROGRAM

KNDS France, with its GME partners (Thales, Arquus, TEXELIS), provides the French Army with new vehicles within the SCORPION programme:


- **LECLERC** Main Battle Tank, the decisive capability of the French land forces is currently renewed to integrate SCORPION programme;
- **JAGUAR**, armed with a 40 CTA canon and anti-tank missiles by MBDA will be the new 6x6 armoured cavalry vehicle;
- **GRIFFON**, the 6x6 armoured personnel carrier of tomorrow is already in service and can endorse any mission from command post to, embedded mortar, engineers, medevac or artillery observer;
- **SERVAL** will shortly join GRIFFON as the new versatile 4x4 for any remote mission, with up to 26 reversible variants for asymmetric contexts, homeland security or high intensity support mission.

These new vehicles (and shortly VBCI) are integrated via their vetronics and their common battle management system into SCORPION collaborative combat in which KNDS France plays a leading role, alongside with the French Army, to fight more efficiently in complex operational environments.




KNDS

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VEHICLE ARCHITECTURE	WEAPONRY	PROTECTION	COMMUNICATION INFORMATION SYSTEMS

LACROIX (S-KAPS)

Pyrotechnic systems expertise

French Expert in soft-kill systems and effects for all type of vehicles



Soft-Kill Advanced Protection System

Since 1990, Lacroix defense develops broadband masking ammunition for various combats vehicles, from Special Forces light vehicles to APS or MBT all around the world. In order to optimize the protection of vehicles against the new threats, including top attack threats like UAV or Artillery sub-munitions, in modern conflicts, Lacroix produces a global soft-kill hemispheric protection.

S-KAPS™ includes:





- Threats detection & Environmental awareness;
- Analysis and reaction decision;
- Broadband masking & decoys & jamming effects
- Communication & protection optimization.

S-KAPS™ is adaptable to the vehicle and the mission, incremental (upgradable according to needs and technologies) and combat proven in many high intensity conflict or peace keeping operations.

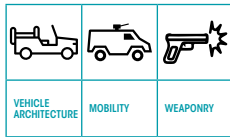
All protection effects are realized thanks to the range of Galix ammunition:

- **Galix 13 F2 & Galix 23** - long & medium duration broadband masking ammunition (from UV to Far IR, mm);
- EM Jammer
- IR Decoys .



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LAROCHE GROUP

LAROCHE is specialized in manufacturing complex mechanical assemblies and systems for rolling or flying vehicles. We support major players for serial production as well as innovation process (prototypes).

Industrial excellence for complex mechanical products

LAROCHE is a French medium size industrial company dedicated to complex mechanical assemblies manufacturing.

Acting in ASD fields (Aeronautics, Space & Defence), our DNA is to provide robust industrial solutions based on "build to spec" way of work.

With our qualified and experienced workforce, from Blue collar to engineers, we are able to build tailor made solutions for customer satisfaction.

LAROCHE is one key partner for challenging & demanding projects through all project steps

- Co engineering with customer design office
- Industrialization of manufacturing process
- Industrialization of Jigs & tools (design & build)
- Fabrication / precision machining
- Special processes
- Assembly & adjustments
- Geometrical 3D check
- Integration
- Customer support on site

We guarantee confidentiality, efficiency and leadtime through our Project Management and thanks to our Quality Management System (ISO 9001, EN 9100).

For your project and your Supply Chain, LAROCHE is your French strategic partner.

Arnaud SOULET | Business development manager

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LIMATECH

Limatech is a deeptech industrial startup specializing in innovative lithium batteries for aeronautical applications. With a portfolio boasting 12 patents, our company leads the charge in designing and manufacturing disruptive solutions that redefine aviation standards. These batteries represent a transformative leap in the aviation sector.

At the heart of Limatech's mission is a commitment to providing a transformative technological solution that addresses the pressing need for more sustainable aviation practices. With a focus on efficiency, performance, and sustainability, Limatech's batteries represent a paradigm shift in the aviation sector.

What sets Limatech apart is the unparalleled performance of its batteries, as evidenced by our 12 patents. These disruptive solutions are 3 times lighter, 2.5 times more efficient, and last 2.5 times longer than any existing alternatives on the market. By leveraging such advancements, LIMATECH not only enhances aircraft performance but also significantly reduces fuel consumption and carbon emissions, meeting our commitment to sustainable aviation practices.

Beyond their exceptional performance metrics, **Limatech batteries embody a vision of sustainability**. By facilitating lighter and more efficient aircraft components, Limatech contributes to reducing the carbon footprint of air travel, paving the way for a more eco-friendly aviation industry.

Limatech's innovative approach goes beyond product development. The company is committed to fostering collaborations and partnerships that accelerate the adoption of sustainable aviation technologies worldwide. Through strategic alliances with industry leaders, regulators and research institutes, Limatech is advancing the transformation of aviation towards a more sustainable future.

Limatech offers a tangible solution to one of the world's most carbon-intensive industries. With its revolutionary lithium batteries, Limatech is not only redefining the possibilities of aviation, but also paving the way for a more sustainable and prosperous future for generations to come.



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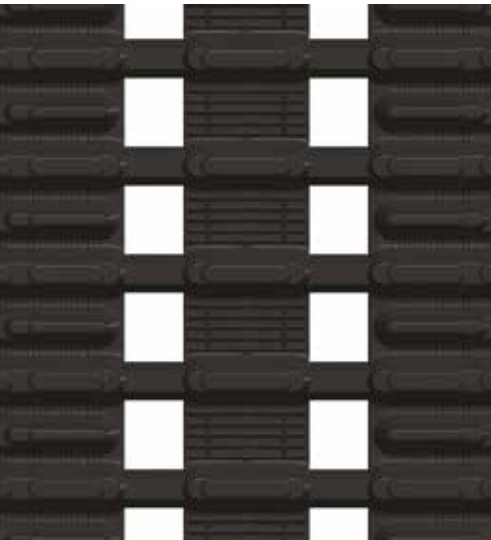
🌐 <https://www.limatech.energy/>

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CAMSO TRACKS



Undertake every mission

Specialized in off-road products and above all, rubber tracks and track systems for the different industries, the Camso high-performance products are specifically designed to meet the unique mobility needs of each application in the off-road vehicle market.

Camso innovative track systems and technologies keep the vehicles moving on any ground while ensuring the success of all your missions. And as the safety and mobility of your team is a priority, it remains at the heart of every product and technology Camso develops and introduces to the market. By using innovative and appropriate technologies, Camso offers integrated and accessible tracks solutions to meet specific mission requirements and support our customers in all government and defense operations.

From tactical tracked vehicles to robots

Camso designs tracks and track systems for all-terrain vehicles as well as unmanned ground vehicles.

The Camso APC BA6 EXTERNAL DRIVE track provides a unique profile pattern for traction in snow and soft terrains.

Thanks to its conception without internal steel crossbars, the track avoids vibration and noise, while maintaining durability.

It is engineered to provide resistance to aggressions, endurance and climbing capability.

The dedicated Camso teams can also rely on the expertise they have acquired in various industrial applications to design products to meet specific military requirements, at the request of manufacturers or customers.



📍 Alain BARILLIER | Vice-president Defense Mobilities

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MICHELIN

In defence environments, an uncompromising dedication to the safety of soldiers in the most demanding conditions is required. Through its offer for military ground, aerial & naval vehicles, Michelin provides a complete & complementary range of innovative technological products, adapted services, integrated & accessible solutions for military vehicles.

A WORLDWIDE OFF-ROAD MOBILITY ACTOR

Michelin has developed tyres adapted to specific & demanding constraints such as load, speed, climate & type of terrain. Michelin also monitors the evolution to co-design adapted products with manufacturers for infantry combat, tactical, logistics & engineering vehicles.

Safety & mobility

From muddy to sandy through off-road trail conditions, Michelin provides a complete range of products with a casing designed to operate at various pressures thanks to its compatibility with CTIS*.

Specially developed for off-road vehicles that drive on all terrains, the highly versatile MICHELIN X FORCE ZL range offers maximum mobility & robustness to intervene in all conditions. It is resistant to accidental tears & cuts.

A new winter offer

With the recent entries of Sweden & Finland in NATO & the strengthening of NATO's armed forces in Central Europe, Scandinavia & Arctic areas, a growing mobility demand in winter conditions has emerged. That's why a new solution, MICHELIN X FORCE WINTER, for winter mobility has been specifically designed for severe winter countries. The excellent grip is a result of the depth of the double-wave 3D sipes, which confers a long-lasting performance.

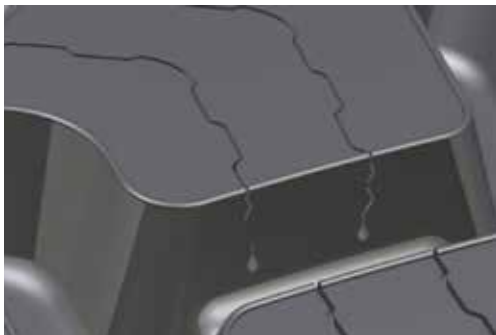
No maintenance, no compromise, no downtime

The MICHELIN X TWEEL airless radial tyre is a single unit that replaces the current tyre & wheel assembly. It can equip UTV, ATV & robots. There is no need for complex mounting equipment & once they are bolted on, there is no air pressure to maintain. They are designed to perform like pneumatic tyres, without the inconvenience & downtime caused by flat tyres.

*Central Tyre Inflation System



MICHELIN X FORCE ZL tread pattern



MICHELIN X FORCE WINTER 3D sipes



MICHELIN X TWEEL UTV



👤 Alain BARILLIER | Vice-president Defence Mobilities

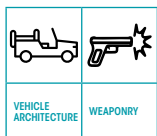
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MBDA

AKERON MP FOR WHEELED AND TRACKED VEHICLES

Armoured combat vehicles and CRVs

MBDA is an experienced systems integrator and as such has worked with the sectors leading armoured vehicle manufacturers. In this respect we can offer a number of integration solutions depending on customer requirement.

AKERON MP with IMPACT

To maximise the operational flexibility of AKERON, MBDA has developed the IMPACT turret. The 250kg class remote controlled turret provides an optimised battle capability against a wide spectrum of hard and soft targets for a range of manned light combat vehicles. IMPACT features a twin launcher on the land variant deploying two ready-to-fire AKERON missiles and a 7.62mm general-purpose machine gun.



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VEHICLE ARCHITECTURE	MOBILITY	PROTECTION	COMMUNICATION INFORMATION SYSTEMS

METRAVIB DEFENCE

Over 30 years in the service of world-wide security for the protection of people, sites and vehicles, Metravib Defence has developed high-performance threat surveillance, detection and localization solutions for the defence and civil protection sectors.

Acoustic Gunshot Detectors

At the heart of the infovalorization and digitalization of the battlefield

Metravib Defence, the inventor of acoustic gunshot detection and supplier of SLA ⁽¹⁾ within the SCORPION vehicle program for "Griffon" VBMR (Multi-Role Armored Vehicles), "Jaguar" EBRC (armored reconnaissance and combat vehicles) and SERVAL (Lightweight Multirole Armored Vehicle), fits perfectly into this new operational approach, by offering solutions to exploit, fuse and share data from theatres of operation.

PILAR V is the essential sensor in the vetronics enhancing situational awareness. Its unique and innovative architecture allows interoperability with the SICS ⁽²⁾, which shares data between "connected vehicles" in order to maximize the infovalorization and digitalization of the battlefield.

Metravib Defence is always innovating for a better tomorrow, with major development lines such as the detection of a wider spectrum of threats, data fusion from several acoustic sensors and even fusing acoustic data with optical ones to increase PILAR V's uses, especially for the vehicle modernization program including wheeled and tracked vehicles.

(1) SLA: Système de Localisation Acoustique

(2) SICS: Battlefield Management System of SCORPION

To enter in the era of collaborative combat

Lessons learned from data fusion and Metravib Defence's innovative capacities to miniaturize and integrate its "acoustic ear" should perfectly contribute to upcoming studies preparing future capabilities such as:

- The integration of UAV and UGV into the combat system
- Connection with the dismounted soldiers and their different equipment kits
- Management of multiple sensors.



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MUSTHANE



Musthane proposes innovative solutions based on flexible composites and polymers for ensuring the survivability of the vehicles in extreme environments.

—**Lightweight and compact self-sealing material** specially formulated to increase the ballistic resilience of the fuel and lubricant tanks exposed to blasts and bullets.



—**Innovative and patented Tyre Sidewall Protection** enhancing the resistance of tyres as well as camouflage of the vehicles. This unique equipment can be adapted to any wheel and is installed on field in less than 5 minutes by only two operators.

—**Mustmove patented vehicle recovery traction mats** specifically designed for very heavy vehicles which are stuck in mud or sand. These long lasting and robust mats are made of composite and rolled up to be used several times all along the mission.

Musthane has the capability to design and manufacture a tailor-made solution to fit your specifications.



Musthane

👤 Reza ROSIER | CEO

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NUANCES TECHNOLOGIES

A wireless communications security expert since 1991, Nuances Technologies designs and integrates advanced solutions dedicated to armed forces and homeland security forces. These tactical systems are intended to control, simulate, detect, intercept, jam, block, locate or secure any type of wireless communication.

Experienced manufacturer and integrator

Advanced Electronic Countermeasures

Drawing on extensive experience with RCIEDs and the jamming of communications, Nuances Technologies has developed a comprehensive range of products used by armed forces: protecting soldiers, their combat vehicles, convoys, sensitive positions and places, etc. The whole range has been deployed and battle-proven in theatres of operations. Nuances Technologies equips the NATO and UN forces in conflict zones, Police and Army units through the world. Thousands of vehicles have been equipped with our systems.

Modular and evolutive solutions

Nuances Technologies solutions are evolutive and can be adapted to any type of mission. Any new threat appearing on the market will be integrated into our systems.

Combining state-of-the-art technologies and complying with high quality standards, our systems guarantee the best level of protection. Our teams can integrate complex jamming solutions on all types of vehicles, civil or military, without changing their characteristics. Each integration will be studied as a specific case and a dedicated architecture will be designed, offering the best performance while optimizing the available space in the vehicle.

Capabilities

- Convoy protection
- Self-protection
- Route clearance protection
- Crowd communications control
- Collection of information

Solutions


- RCIED jammers
- Active, reactive and hybrid technologies
- Communications jammers
- Anti-drone solutions
- Long-range cellular blocking systems

Services

- Simulation
- Customized design
- Integration
- HERP measures
- Efficiency measures
- Training
- Maintenance



 Sales Team

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PRONAL

Pronal, with over 63 years of experience working closely with world armed forces designs, manufactures, installs, distributes and maintains, with offers standard, tailormade & turnkey solutions for fuel and water logistics.

Our flexible engineering solutions are highly versatile and can be quickly deployed on-site, easily transported by trucks, helicopters, or vehicles. They are suitable for transportation by land, sea, or air.

Pronal's lifting cushion systems are tailored for the defense sector, providing mobile and rapid response capabilities essential for operations in the field. These solutions are designed to lift heavy loads with precision and speed, aiding in various military logistical challenges. They emphasize operational readiness and versatility, crucial for environments where time and efficiency are of the essence.

Pronal's Dynamic storage tanks are specially crafted for the defense sector to ensure a robust and adaptable solution for fluid transportation. These flexible tanks are particularly designed for dynamic environments, offering mobility and quick deployment capabilities crucial for military operations. They can be easily transported by various means, including under slung by helicopters, making them a versatile choice for fluid delivery in the most demanding situations.



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SAFRAN ELECTRONICS & DEFENSE

A world-renowned specialist in inertial navigation and optronics

Safran holds world or European leadership positions in optronics, avionics, electronics and critical software. Safran is the No. 1 company in Europe and No. 3 worldwide for inertial navigation systems used in air, land and naval applications. It is also the world leader in helicopter flight controls and the European leader in optronics and tactical UAV systems.

On-board optronics: monitor the environment and engage

PASEO is a latest-generation very-long-range observation and attack sight, intended for infantry vehicles and main battle tanks. Highly versatile, PASEO is perfectly suited to 30-155 mm Gunner and Commander's applications.

MINEO is an ITAR free sensor sight designed for Remote Weapon Stations, Armored Fighting Vehicles, Self-propelled howitzers, as well as medium-range observation systems. MINEO sight combines color day and thermal imaging along with a laser range finder in a single compact unit, providing a low optical signature. Its patented motionless color day zoom results in a superior line-of-sight stability and firing accuracy.

Compact, lightweight and ITAR free, **VIGEO** is a stabilized Gunner and Commander sight. It offers on-the-move day and night situational awareness acquisition, target designation and high efficiency engagement to armored vehicles.


Known-position in all conditions

All onboard systems must be precisely geolocated and synchronized to provide consistent, reliable and time-stamped information under all conditions. Safran Electronics & Defense has developed a compact, hybrid navigation system allowing special forces to operate in an increasingly complex and uncertain environment. The **NAVKITE**'s capabilities combine the **GEONYX™** M inertial navigation system with the **VersaSync®** time/frequency platform, both being Safran Electronics & Defense products.

Together, they handle the transmission of trusted position, navigation and timing data to ensure mission continuity. NAVKITE takes full advantage of Safran's proven PNT expertise to provide navigation integrity and performance on land or sea, over long periods of time and under the most demanding conditions.



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VEHICLE ARCHITECTURE	MOBILITY	WEAPONRY	PROTECTION



SEMIP CODECHAMP

For more than 40 years, the Semip-Codechamp group is a leading player in the field of high-performance angular position sensors for the most demanding markets: defence, space, civil nuclear and motor racing.

The group, which places innovation at the heart of its strategy, employs around sixty people, a quarter of whom work in the design office and in R&D. It is a reference partner for major European defence programs.

SEMIP-CODECHAMP as innovation leader and technology expert, offers tailor-made solutions and off-the-shelf products to worldwide customers, including potentiometers, magnetic sensors and optical encoders.

A comprehensive range of position sensors to provide cost-effective solutions for challenging applications.

Potentiometers

SEMIP precision potentiometers are designed for control applications where accuracy and high reliability are mandatory. They provide superior resistance to shock and vibrations and long operational life. Available in conductive plastic or wirewound technology and in various sizes, both single-turn and multiturn models are used in applications such as actuators systems, flight by wire, landing gears, air bleeding systems, engine control, helicopter autopilot, etc.


Magnetic encoders

Suitable for applications that require small size, light weight, and high reliability, our magnetic encoders show the excellent advantage of being robust in demanding environmental conditions. Based on a proprietary ASIC, they are capable of meeting stringent performance requirements in a variety of applications: defense, medical, robotics, motorsport etc.

Optical encoders

Our standard or custom optical encoders are designed for defense applications requiring the highest performances. Focused on high precision and quality, our optical encoders equip a multitude of applications including turret positioning, weapon systems, radars, automatic ammunition loading systems or self-guidance systems for missiles.

 Adrien SIGEL | Group Head of Sales

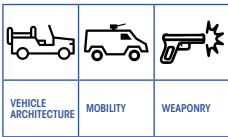
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SKF FRANCE

A leading player offering less friction and higher precision to optimize performance

SKF is a world-leading provider of innovative solutions that help industries become more competitive and sustainable. By making products lighter, more efficient, longer lasting, and repairable, we help our customers improve their rotating equipment performance and reduce their environmental impact. Our offering around the rotating shaft includes bearings, seals, lubrication management, condition monitoring, and services.

Advanced engineering and manufacturing capabilities

From the stifling deserts of the middle east to the emptiness of outer space, SKF solutions are proven choices for critical applications. For combat, recon or simple transportation, today's designs demand innovation as well as performance. Both are SKF specialties, thanks to top-flight engineering and manufacturing teams with all the appropriate certifications.

- Space and weight saving products plus reliable, accurate positioning.
- Integration of civilian technology into military products for faster, more economic performance improvement.
- Comprehensive technical support and long term commitment.
- Decades of rotating equipment experience and engineering expertise.
- Leading industry brands with proven experience and active service references.

Specialized solutions

For critical applications involving radial, axial or moment loads and tough environmental conditions, you need SKF Kaydon Bearings. We have a tremendous range of slewing bearings including Wire Race bearing technology and Reali-Slim® thin section bearings designed for applications such as:

- Turrets and artillery, azimuth and elevation bearings
- Radar and acquisition, target & sighting systems
- Drones and counter-measure systems

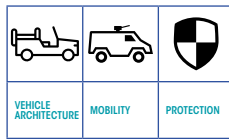
Solutions for Powertrain

SKF bearings for Powertrain boast lower operating temperature, longer lubricant life, reduced noise and vibration level, increased wear and contamination resistance, improved bearing service life and excellent high-speed performance.



Bernard TAUVERON | Global Industry Leader Defense
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SOFRAME

Soframe: Trust, Innovation and Agility for customer satisfaction. Our skilled teams and state-of-the-art industrial capabilities are committed to customer satisfaction all along product life-cycle:

- efficient, modular and innovative solutions designed to meet customer needs,
- huge and flexible production capabilities to comply with short deadlines,
- dedicated resources to ensure performant in-service support on the long term.

With a rich history of engineering excellence and a commitment to customer satisfaction, Soframe stands at the forefront of innovative solutions in the realm of multi-role armored vehicles for the Defence and Security forces and continues to redefine the standards of versatility, performance and reliability.

Crafting Versatile Armored Vehicles

Through meticulous design and advanced manufacturing processes, we create vehicles that seamlessly adapt to a variety of missions and environments. Whether they are providing superior protection, agility or situational awareness, our vehicles are engineered to be highly performant in diverse operational scenarios. From urban warfare to reconnaissance missions, Soframe vehicles offer unrivaled versatility.

This versatility is perfectly illustrated by our Armored Infantry Vehicle (ARIVE), which has been delivered in 2000 units and 9 versions (APC, Command Posts, Ambulance, ...) and served as a basis for designing VIPG – Centaure, the multipurpose vehicle which recently came into force within French Gendarmerie.

Beside this one, Soframe has developed a wide range of multi-role armored vehicles:

- ARAM, a heavily protected mobile 4x4 ambulance,
- APCL, a protected rapid intervention vehicle designed to operate in extremely fragmented areas and very varied terrains,
- MRAP a Mine Resistant Ambush Protected vehicle offering extreme survivability, high road capabilities and superior payload.

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STÄUBLI

Connectors - Advanced connection solutions.

Stäubli develops quick connection solutions designed for extreme operating conditions at sea, on land and in the air.

Stäubli has been a trusted partner of the **defense industry** for over 50 years.

We are recognized for our **expertise in providing the safest connection solutions around the most sensitive technologies.**

Whether it be for thermal management, air conditioning, hydraulics, or fuel, Stäubli connectors are built to protect your mission critical equipment even in the most difficult of environments.

Used by multiple French army corps, including the **Special Forces**, our quick connectors ensure efficient & safe operations.

Stäubli's comprehensive range of product will fit all your coupling needs as we offer both off-the-shelf and customized solutions.

Here's a focus on the top 3 proprietary product lines used on armored vehicles.

— **SPF range** is designed for frequent connections and disconnections of air conditioning systems without having to refill the circuits with coolant.

— **SPT range** is your choice for cooling applications in harsh environments, thanks to its ball locking design and its corrosion resistance.

— **VSU range** provides an optimum flow rate pressure drop ratio thanks to its spherical valve. Combined with a bridle and placed on a tank, VSU quick couplings are very easy to connect while ensuring optimal safety conditions.

The demands of the market determine the way in which we adapt our services in each of the **28 countries where we have a presence**, and in the 50 other countries where our agents are based. We are constantly planning to extend our presence to new countries to better serve our customers.



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STÄUBLI



STRATIFORME INDUSTRIES



With over 60 years of experience in the design, qualification, and manufacturing of highly technical composite parts, Stratiforme Industries plays a pivotal role in the defense industry. Our commitment to research and development enables us to offer unparalleled expertise in creating cutting-edge composite components tailored to the needs of major players in this sector, particularly in terrestrial and maritime defense.

Terrestrial Defense: Composite Solutions for Robust and Agile Vehicles

As a specialist in equipment designed for vehicles operating in hostile environments, Stratiforme Industries designs, qualifies, and manufactures strategic carbon parts for renowned actors in terrestrial defense. Our components, engineered to withstand high tensile and compressive stresses, are crucial for combat vehicles operating under extreme conditions. Besides their resistance to loads and direct impacts, our composite solutions lighten structures, thereby enhancing the mobility and agility of the vehicles. Their corrosion resistance ensures reduced maintenance and prolonged operational availability, while their excellent energy absorption properties provide increased protection for both crew and internal equipment in the event of impacts. Beyond mere manufacturing of composite parts, the integration of advanced technologies lies at the heart of our approach. Our composites facilitate the incorporation of these technologies, thereby optimizing the performance of defense vehicles in line with the modern demands of the sector.

A Maritime Dimension in Terrestrial Operations

Supported by our design office, which includes designers, draftsmen, and engineers, as well as our internal laboratory, we stand out for our expertise in complex and innovative projects. We are committed to the design, qualification, and manufacturing of multi-meter-long composite parts assembled by bonding, specifically designed to equip military engineering equipment. Among our accomplishments are the watertight ballasts designed to equip motorized floating bridges, enabling the temporary crossing of water bodies in military contexts. These bridges allow for the rapid deployment of troops and vehicles, particularly useful in areas where infrastructure is limited or damaged. Stratiforme Industries is recognized as a preferred partner for defense sector players, thanks to its advanced expertise in composites and its ability to meet the most complex challenges.

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TECHNAMM

The Armoured T6 Masstech by Technamm

Technamm, vehicles optimizer, transforms vehicles from the famous Toyota's commercial range (Land Cruiser 70's series) into military vehicles to meet the specific needs of its customers.

Technamm, renowned for its over 30 years' expertise in optimization, has created a new vehicle: the Armoured T6 Masstech. In compliance with the French army, this one sets a new standard in tactical mobility the military.

Built on a rugged chassis with six-wheel drive and reinforced with a B6 shielding, the Armoured T6 Masstech presents a compact and agile platform weighing just 7.5T with a payload of 1.5T. Its six-wheels configuration assures off-road performance, allowing operators to easily circulate on difficult terrain while successfully complete critical missions

The Armoured T6 Masstech is developed to receive a specialized team of 3 operators and up to 3 soldiers, to evacuate in high-threat environments. Its interior layout is optimized for a user friendly with secure storage.

Despite its B6 shielding, the Armoured T6 Masstech retains the versatility and power expected for Land Army. Integrated weapon supports, including a 12.7 ring mount, enable the installation of various weapon systems, ensuring the vehicle remains capable of providing fire support during combat operations

Whether conducting reconnaissance missions deep behind enemy lines or responding to emergencies, the Armoured T6 Masstech stands ready to deliver outstanding performances to the army.



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TELEFLOW



Military operations do not take place only on paved roads!

During land deployments, armed forces are confronted with harsh conditions and a wide variety of terrain. TELEFLOW's expertise lies in enabling them to vary tire pressure on the fly to maintain their mobility thanks to the traction of their vehicles.

Central Tire Inflation Systems

Central Tire Inflation Systems enable the defense industry to improve vehicle mobility. Depending on the ground, the driver can adjust tire inflation to maintain adequate traction. In this way, TELEFLOW systems contribute to the safety of soldiers and the successful execution of missions. At the same time, they also contribute improving total cost of ownership, as the right tire pressure has a positive impact on fuel consumption, ground contact and the life of driveline components.



Mobility is one of the main functions, along with protection and firepower. TELEFLOW system affords the driver to choose the right pressure at any time in order to gain grip and traction, from the cab and while driving. Even in case of a puncture: the driver is noticed and the CTIS compensates by itself the loss of pressure of the faulty wheel to get out of the danger zone and to assure safety for the crew.

Partners of your end users

Software and hardware are internally developed and designed. It allows a fully customized application and a closed monitored evolution during the product life cycle. Expertise of the company on the Defense and civilian markets has strengthened its ability to work with a large scope of soft ground mobility stakeholders. Being part of Michelin Group, TELEFLOW benefits from off-road tire knowledge of BF Goodrich and MICHELIN ranges of products.

TELEFLOW is used by nearly 50 armed forces on every continent in the world for MRAP, IFV, mounted gun systems, surface-to-air missile launchers, bridge layers, for brand new or retrofit programs as well



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VEHICLE ARCHITECTURE	MOBILITY	WEAPONRY	PROTECTION	COMMUNICATION INFORMATION SYSTEMS

THALES

Thales develops, manufactures and supports military vehicles you can trust with your life

Forces across the world demand highly mobile vehicles that provide high levels of troop protection, all terrain agility and exceptional capacity.

Thales develops, manufactures and supports military vehicles you can trust with your life. Thales' protected vehicles deliver superior protection, mobility and payload, and require a platform designed for further integration of capability packages, including those possible through digitisation. World-class vehicles, with potential for transfer of production to our partners.

The combat-proven Bushmaster vehicle meets the requirements of modern land forces:

- Protected mobility for troops in hostile environments
- Excellent off-road mobility and payload capability
- Multi-role flexibility
- Dependable Through Life Support including urgent operational requirements and vehicle capability upgrades

The Bushmaster has been successfully deployed by Defence Forces in a number of regions including the Middle East, Africa, the Pacific and Europe. On-going design enhancement, a wide variety of user selectable mission equipment and mature through life support have ensured that Bushmaster continues to meet evolving customer requirements

Key Figures of Thales Protected Vehicles:

- 1,200+ Bushmasters in-service with the armed forces of 9 nations



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THALES
Building a future we can all trust



THIOT INGENIERIE

Your partner for better understanding of your armored solutions against ballistic and blast threats

For over 15 years, THIOT INGENIERIE has been building up expertise in the characterization and designing of armor materials and solutions, as well as in "Blast/Structures" interactions.

Expertise in terminal ballistics

The only private laboratory of its kind in the world, THIOT INGENIERIE provides a comprehensive range of "materials and structures" expertise services to understand the operating and/or failure modes of armor systems, whatever the materials involved (steels, aluminum alloys, ceramics, etc.). The company provides its customers and partners with:

- ultra-instrumented test facilities covering a wide range of impact velocities and energies
- A team of highly experienced engineers and technicians
- All this combined with a numerical simulation center equipped with the latest innovations in the field

A pragmatic approach to warhead-armor interactions

THIOT INGENIERIE's "materials" database is extensive enough to enable studies of vehicle vulnerability to IEDs and buried mines to be carried out without prior testing. The same pragmatic approach is applied to shrapnel and kinetic projectile perforation phenomena. It is only in the context of a particular threat that a specific analysis will be suggested to go into greater detail on projectile - armor or explosion / blast - vehicle interactions.

Mastering "Blast - Structures" interactions

THIOT INGENIERIE is also :

- Specialization in pyrotechnic zoning, optimizing the methodology to reduce calculation times without altering the relevance of the results.
- Theoretical expertise supported by firing range tests, for realistic rendering of numerical simulations, particularly in the context of pyrotechnic safety studies

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VEHICLE ARCHITECTURE	MOBILITY	WEAPONRY	PROTECTION	COMMUNICATION INFORMATION SYSTEMS

TRA-C INDUSTRIE

TRA-C industrie is an **equipment manufacturer** and an **expert in metalworking**. We support our clients throughout the design and deployment stages of their industrial projects.

TRA-C industrie has the ability to offer a **global turnkey service**, from engineering, small, medium, and large-scale production, to the training of your employees and the maintenance and monitoring of your equipment.

TRA-C industrie, an expert in metalworking

Product engineering and production

Our industrial design office **develops innovative solutions**. Numerous projects have been developed within TRA-C industrie, such as **assault ladders for special forces, complex drone launch and recovery system (LARS), but also armored structures**.

We have the human and material resources to be the **key subcontractor, assembler, and equipment supplier for all your industrial projects**.

Certified according to EN ISO 9001, ISO 3834, EN 15085, EN 9100 standards, our teams of technicians and engineers provide a **global industrial service**.

Process robotic integration and automation


We design and manufacture **robotic cells and integrate them into their environment** (welding systems, handling systems, conveyors, distributors, special machines, etc.), including assembly, programming, fine-tuning, process training, maintenance, etc.

Friction Stir Welding

FSW is a **solid-state welding process**. This technology offers many advantages for the design of various applications. Supported by the DGA (several RAPID projects), we design, develop, and install FSW machines and cells according to our customers' needs and criteria. All our solutions are unique and customized to the customer's requirements, and these **turnkey machines can be completed with options**. For example, we have co-developed the **largest FSW machine in Europe dedicated to the SERVAl program**. This machine can weld parts in **3 dimensions and up to 40mm thickness**.




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Our job: to contribute to protect you

The French defense industry and security works for you daily



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