

# KNDS

2023 CORPORATE BROCHURE





**Frank Haun**  
Chief Executive Officer  
KNDS



# KNDS: SHAPING EUROPEAN LAND DEFENCE

**In December 2015, the owners of Nexter Systems and Krauss-Maffei Wegmann merged their enterprises under the joint company KNDS. This marked a historic step. Europe's two major manufacturers of military land systems pooled their experience, innovative energy, industrial capacities and excellent customer relationships to pursue two key goals: further expanding their technological leadership and consolidating the military land systems industry in Europe.**

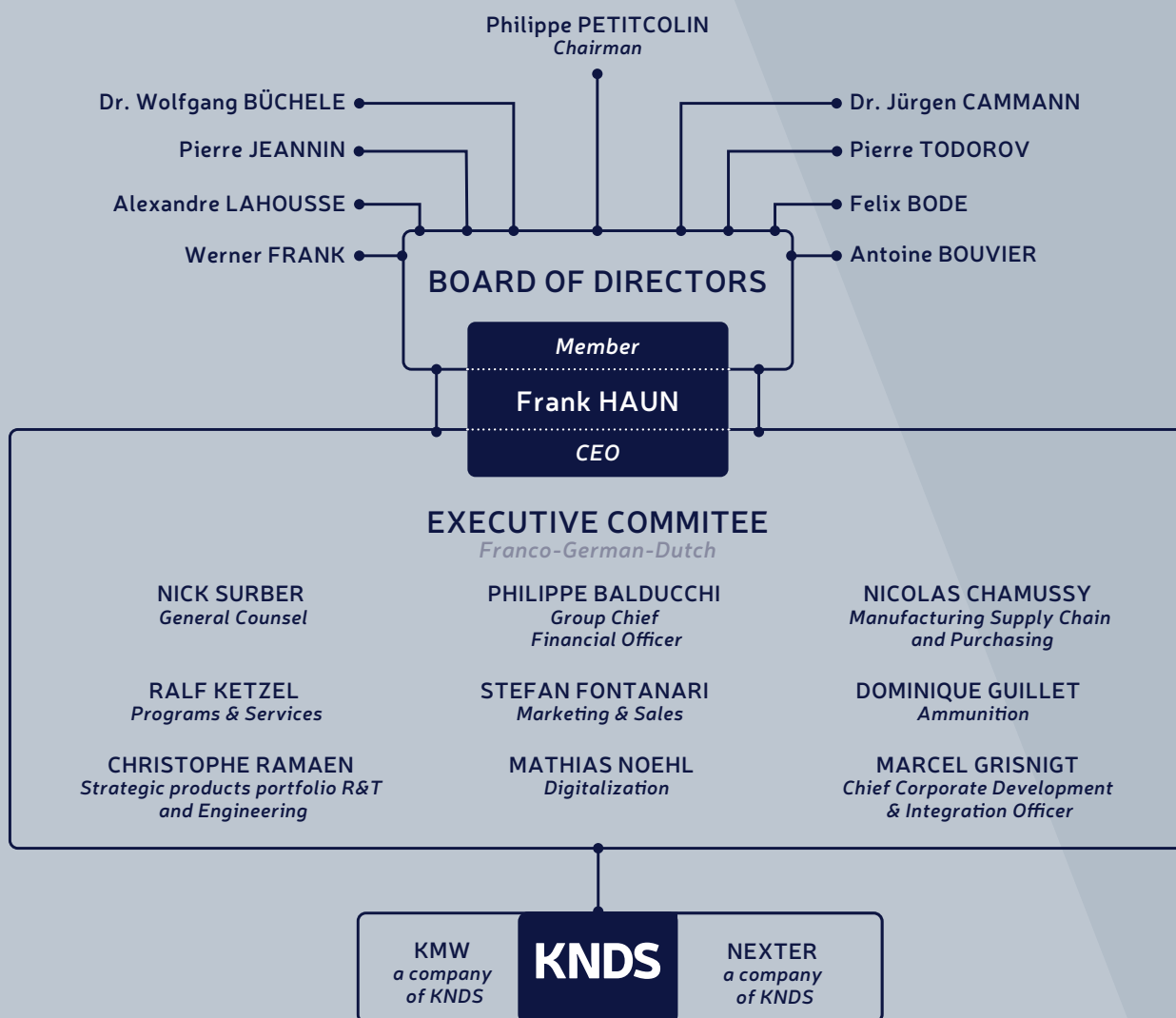
**From June 2023, KNDS is harmonising its brand image. In future, Krauss-Maffei Wegmann, Nexter and their subsidiaries will appear exclusively under the single brand KNDS.**

**Around 9,000 employees** generated sales of € 3.2 billion for KNDS in the 2022 financial year with an order intake of € 3.4 billion and an order backlog of € 11.0 billion. Our product portfolio covers the entire spectrum of capabilities required by modern land forces: main battle tanks, armoured vehicles, artillery systems, weapon stations, ammunition, military bridges, robotics, battle management systems, training solutions, solutions for protection systems, together with a wide range of defence equipment and first-class customer service from operations in eight European countries.

**With the ongoing integration of Nexter and Krauss-Maffei Wegmann as well as with new European partners,** KNDS is underlining its claim of being a driving force in the necessary consolidation of European industry for military land systems. So far, the industry has been characterized by numerous national manufacturers with a wide range of products and systems. Their consolidation and joint strategic governance will make a significant contribution to the standardisation of land forces in Europe and the free world.

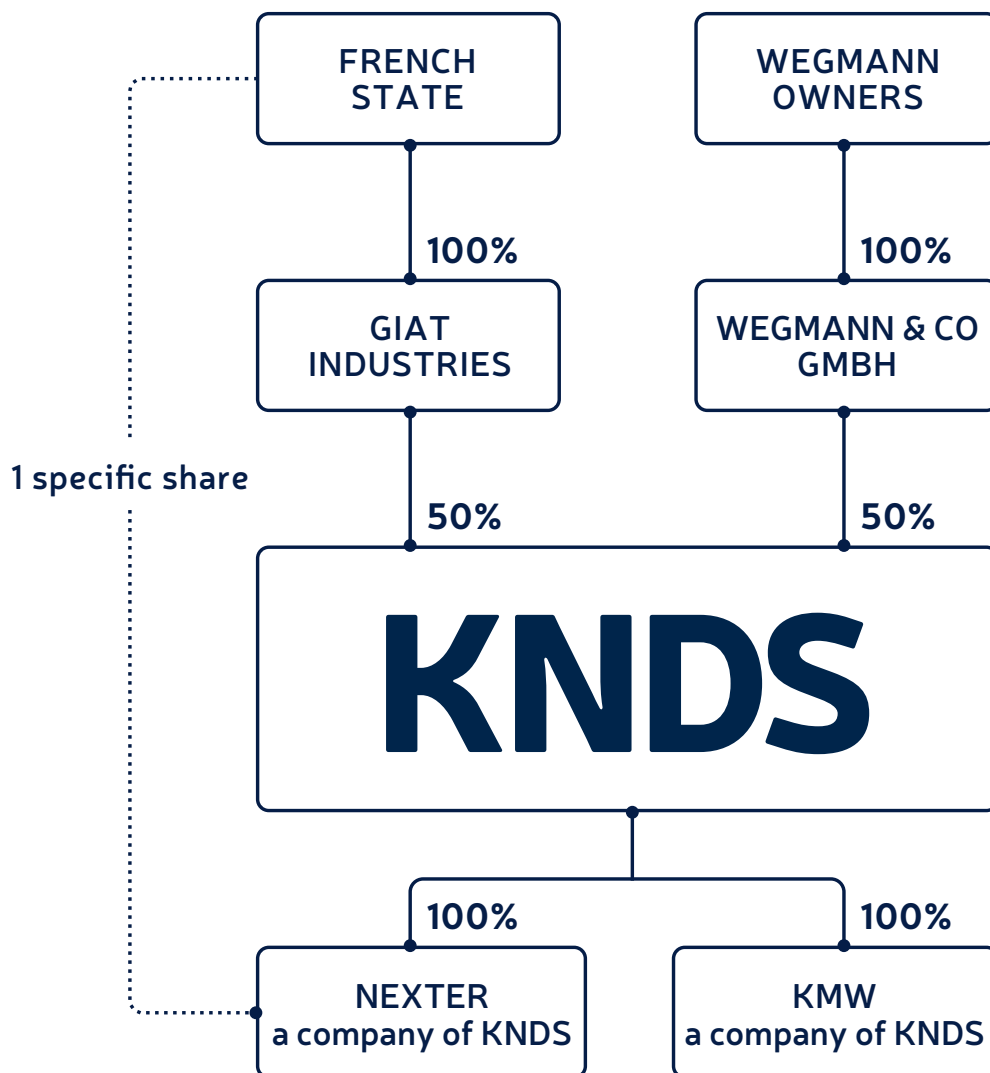
**This brochure gives you an overview of KNDS' system and solution expertise.** It shows the leading technologies for today's land forces. At the same time, it stands for our potential and our passion for supplying the armies of tomorrow with systems that are superior at all times. KNDS. Shaping European Land Defence.

# KNDS GOVERNANCE



# KNDS GROUP ORGANIZATION

In 2015, Nexter and Krauss-Maffei Wegmann (KMW) merged to form KNDS which is today the European leader in land defense. The consolidation of the living strengths and know-how companies allow them to better conquer export markets and take on everincreasing competition in order to meet the needs of French and German land forces.



# KNDS

## A EUROPEAN LEADER



# KNDS

## AN INTERNATIONAL PRESENCE







# KNDS GROUP

## KEY FIGURES

### NEW ORDERS



### TURNOVER



### ORDER BACKLOG

€ 11.0 BILLION (2022)

### LAST MAIN ORDERS

- LECLERC XLR for France
- GRIFFON and JAGUAR kit for France
- PUMA for Germany
- NERVA LG for Australia
- BOXER for Slovenia and United Kingdom
- GRIFFON and JAGUAR for Belgium
- LEOPARD for Denmark
- BOXER JFST for Germany
- CAESAR 8x8 for the Czech Republic
- LEOPARD 2 A7 for Germany
- CAESAR 6x6 for France, Belgium, Lithuania and Ukraine
- Artillery ammunition for Lithuania, Estonia, Finland and Ukraine.

### WORKFORCE

1079 new  
recruitments in  
2020 - 2022



# KNDS PORTFOLIO



## LEOPARD 2

The LEOPARD 2 is synonymous with the world's leading combat tank technology. As a decisive response to the multifaceted threats of the past, present and future, it forms the backbone of modern, visionary and assertive armed forces around the globe, has ever undergone to date. The modular configuration has enabled its continued use far into the mid-21st century, adapted to the most disparate of threat situations.



## VBCI

From high-intensity combat missions to peacekeeping operations, the VBCI keeps an entire infantry section safe. VBCI is "Combat Proven" and is currently deployed in operation within the French Army. VBCI represents the best balanced solution between survivability, firepower, mobility and payload.



## BOXER

Unsurpassed modularity meets maximum protection. Thanks to its unique vehicle concept, the possibilities for adapting the BOXER to new tasks are virtually unlimited. The ability to replace the mission module opens up new possibilities in mission planning and the provision of emergency forces.



## TITUS® ARX® 25

TITUS® is the ultimate armored vehicle designed by KNDS in order to meet all the constraints of modern hybrid warfare. KNDS combined the best of its experience and technology in TITUS®. By its modularity, the TITUS® family is dedicated to every unit, facing different threats in an evolving environment.





## LECLERC

The LECLERC MBT is the ultima ratio of the French land forces and guarantees its capability to process high intensity operations. Improved year after year by KNDS thanks to lessons learned on the ground, its technology pack remains unrivalled in the world regarding firepower, and its growth potential provides survivability and technology implementation on a long term.



## APVT ARX® 25

APVT - Amphibious Protected Vehicle Tracked: The rise of amphibious capabilities thanks to the innovative APVT concept expands the operational spectrum of military land operations. The demonstrator is an amphibious battle vehicle which combines mobility on land and water in a fully protected modern tracked vehicle.



## VBMR (GRIFFON & SERVAL)

The VBMR family encompasses both GRIFFON 6x6 and SERVAL 4x4 APCs which are the backbone of the SCORPION Program for the French Army. Thanks to the versatility and modularity of their chassis which can accommodate respectively 16 and 26 variants, the VBMR family provides a higher level of tactical mobility as well as a comprehensive set of capabilities.



## DINGO 3 4x4

Uncompromising protection with increased power for a safe mission. Heavily protected, highly mobile GFF3 class support vehicle based on new, refined, enhanced-performance of the DINGO 3 4x4 with space for a crew of up to ten. Conceived for multifaceted mission profiles and extreme terrain conditions. The direct advancement of the DINGO 2.





## CAESAR® 6X6

CAESAR® has been battle tested in severe combat and weather conditions. It has proved its accuracy, reliability and safety of use. Compliant with the JB MoU 155mm/52 calibre standard, CAESAR® is fully interoperable with NATO 39 & 52 calibre ammunitions.



## CAESAR® 8X8

CAESAR® 8X8 has been developed to increase further its combat power in high intensity conflicts thanks to an augmented ammunition payload (36 complete rounds) and off-road mobility. Its artillery system is combat proven and has been constantly deployed in operations for the last 12 years by the French and other armies. It is currently used in different types of geographical environments with severe climatic conditions (mountains, deserts, urban areas etc).



## PZH 2000

High mobility, short reaction times to execute a fire command and maximum efficiency are what make the PzH 2000 so effective. From large ammunition supply and rapid replenishment, through maximum aiming precision and automated autoloader with the resulting high rate of fire the PzH 2000 sets the standard for modern barrelled artillery.



## 105 LG

Lightest 105 mm, it is highly mobile. Perfectly suitable for high intensity with an unbeaten rate of fire, accuracy and range. Twice as fast as any competitor to come in and out of action, its low trajectory can defeat trajectory radars. Rugged and proven under all climates, it is fielded in eight armies.





## RCH 155

The new protected howitzer RCH 155 (Remote Controlled Howitzer 155mm) combines the fire power and range of the automatic and remote-controllable Artillery Gun Module (AGM) with the protection and mobility of the field-tested BOXER wheeled armoured vehicle. From rapid replenishment, stable gun platform, through autoloader combined with autonomy in navigation and fire control make the RCH 155 the new standard for modern wheeled barrelled artillery. First system in the world with Zshoot on the move capability.



## LEGUAN

Synonymous with maximum-performance interoperability - is a modular, versatile and extremely high-performance overall concept for the rapid and reliable bridging of infrastructures which hinder movement. On chain, wheel, ferry or floating bridge it is mission-oriented and dependable.



## HSTB

The Heavy Short Trackway Bridge (HSTB) is a modular bridge building kit which, after a brief assembly time, can be used to reliably bridge infrastructures which hinder movement. Thanks to the weight-optimised design, the bridges can also be laid by many 4x4 APCs or smaller tracked vehicles.



## ROBOTICS

KNDS Robotics has developed a full range of robotised systems which includes a set of compatible platforms, control stations and "mission kits", all with reduced ownership cost. The platforms all offers the same level of robustness and ease of use. They are all equipped with operator assistances which multiply the operational effect.





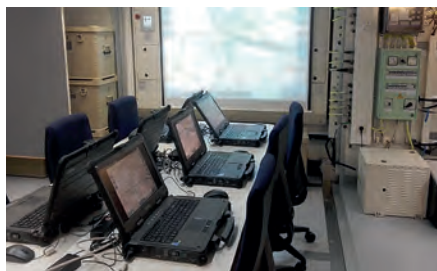
## BOXER TRACKED

The proven BOXER system taken to the next level. The innovative tracked driving module has an increased level of protection and mobility that is otherwise only comparable with heavy tracked vehicles. Since the BOXER tracked is conceptually based on the modular system of the BOXER vehicle family, the drive module can be combined with all BOXER mission modules already introduced.



## JAGUAR

Armed with the T40 turret and an anti-tank MMP pod, JAGUAR offers both a recce and anti-tank capability from short range engagement up to 4,000 meters. Its 6 wheeled chassis provides high tactical mobility and allows growth potential for an enhanced survivability, fitted for missions in various operational contexts, from stabilization up to high intensity.



## C4ISR

C4ISR: Command, control, communications, computers, intelligence, surveillance and reconnaissance. KNDS is one of the very few suppliers of complete turnkey C4ISR systems with a proven track record of implementing fully functional third-party solutions.



## 20 TO 155 MM AMMUNITION

Present in more than 60 countries, KNDS proposes ammunition from 20 to 155mm produced to the highest levels of performance and reliability, and covering more than 80% of the NATO ammunition range.





### 155 MM KATANA®

KATANA® is a 155 fire and forget ammunition designed to enable point firings in complex operational scenarios, including in urban areas. By combining its high efficiency warhead and its accuracy, it has a large effect on target with a contained collateral damage area.



### 120 MM SHARD®

The 120mm SHARD® (Solution for Hardened Armor Defeat) is KNDS newest generation of high velocity APFSDS round. Compliant with STANAG 4385 and MOPI AEP 26 requirements, the 120mm SHARD® can be fired from every Main Battle Tank equipped with NATO's 120mm smoothbore gun.



### T40

Modular turrets using the full capability of the new weapon system 40CTAS comprising the revolutionnary 40CT cannon which is the leading medium caliber weapon of the 21st century. They allow exceptional operational capacities in the open field and urban zones thanks to a 'carousel type' ammunition magazine allowing instant access to the best appropriate ammunition to the target.



### RAPIDFIRE

The main mission of RAPIDFire is the protection of vital assets or defense against different air threats including UAVs (Remotely Piloted Aircraft, drones, micro light aircraft, aero models), para motors, para gliders, helicopters... (hovering or not).



### FLW 200

Remote controlled light weapon station 200 (FLW 200): The modular-design weapon stations offer active self-protection for use on light combat and command vehicles. The FLW 200 enables observation and self-defence with vehicle protection with armament variants up to the 40mm automatic grenade launcher.



### THL 30

When armed with a turreted cannon, helicopters are provided with a real air-to-air protection capability as well as a highly accurate air-to-ground fire support capability. This significantly reduces collateral effect risks when engaging ground targets.



### NARWHAL®

Building upon the experience gained in the area of naval, very light weight gun mounts (15A/15B) and in the technologies used for helicopter gun turrets (THL 20/THL 30, this system allows a permanent day/night surveillance and a reduced crew to use – under protection – the firing power of the 20mm gun.



### KNDS SERVICES

Service from KNDS: Competent – reliable – available worldwide. KNDS is Europe's leading provider of on-site services for military vehicles, training systems and simulators. We offer spare parts supply, repair and maintenance, thus ensuring maximum availability of the mission vehicles – at home or on deployment abroad.



The great diversity of the products supplied to Armies, Air Forces and the Navies has allowed the group to develop powerful and diversified support solutions. Our products will be used under severe conditions for several decades.



## E-MBT

**The E-MBT shown at the Eurosatory 2018 was composed of a standard Leopard 2 chassis and Leclerc turret and served as a platform to test and demonstrate our joint KMW and Nexter engineering capabilities.**

It was integrated within a period of six months. Hereby various real engineering challenges were solved to operate the E-MBT and to use it in industrial tests very successfully up to firing on the move. It was the 1st step of practical common engineering in the key disciplines like electrical system engineering, mechanical interface engineering and data interface engineering. The E-MBT 2nd Gen as demonstrated on the Eurosatory 2022 represents a new experimental platform with an evolutionary turret concept (120mm => 140mm) and a complete new MMI in the Chassis (2 men operation) to realise new vehicles concepts.

The platform has a modern power pack with digital control allowing drive-by-wire which is a prerequisite for remoted automated driving operations and manned/ unmanned teaming. The platform has digital multifunctional crew stations with a modern sighting and control System (LIDAR, LWL). This allows dynamic task allocation and testing of "variable number of crew stations" (2/3/4) crew chassis, manned/ unmanned remoted control turret, etc.) in order to take into consideration the cognitive workload of the operators without waiting for the availability of AI technologies specific to MGCS.

The E-MBT Eurosatory 2022 is equipped with a fully stabilized, SHARD® ammunition capable 120mm turret with a 22 rounds autoloader. Its protection is ensured by a combination of passive armor, a Trophy® Active Protection System, E-LAWS® laser warning system and a Pilar V acoustic detector. Its optronic periscopic sight is

equipped with a colinear 7.62mm machine gun allowing for immediate self-protection while the ARX30 30mm RCWS enables the E-MBT to provide calibrated firepower and to address UAV and loitering ammunition threats.

KNDS, the leading integrated European Land Systems group fulfilling customer requirements continuously by the development of capabilities in a collaborative pragmatic way with customers and partners for proven operational excellence and value for money throughout the whole lifecycle.





# ASCALON

**As a major player in the MGCS program, KNDS is also preparing the future of the main armament by proposing the ASCALON new gun and ammunition concept.**

This innovative concept, while proposing significant growth potential, delivers performance levels that current technologies do not offer. Taking advantage of its long experience with the 120mm smoothbore gun, its mastery of compact ammunition as well as of the maturity achieved during firing campaigns with a 140mm caliber, KNDS designed ASCALON with an open architecture to serve as a basis for cooperative development within the framework of the Franco-German MGCS program, laying the foundations for the future standard of European tank gun and ammunition.

## MGCS

**The Main Ground Combat System (MGCS) is the German-French program to replace their current Leopard and Leclerc Main Battle Tank fleets from 2035 or 2040 onwards.**

The MGCS is based on a multi-platforms approach, composed of manned and unmanned platforms and maximally exploiting new technologies. KNDS as an experienced proven prime-contractor and lead system integrator will play a central role in the MGCS Program. KNDS develops, delivers and sustains complete state-of-the-art multi-platforms system, mission solutions and/or its main sub-platforms, including the related ammunition and services. KNDS masters (new) technology development in close cooperation with its extended network of (European) organizations and partners. KNDS applies a cross-border operating model at European level meeting customer requirements fostering industrial efficiency and assuring an optimized services network to support its customers throughout the whole lifecycle.

A key-requirement of all existing and future operational capabilities is 'interoperability'. The MGCS has to operate in a complex operational environment that is multinational in different regions, composed of a variety of existing

and new capabilities, linked by various C4I systems at different technical maturity stages. KNDS through its two companies KMW & Nexter is fully aware of the ongoing exponentially accelerated new technology developments and its potential impact on operational capabilities. Therefore, KNDS is continuously analyzing how to 'match' concepts of operations (CONOPS) and opportunities offered by new technologies in order to increase operational effectiveness and efficiency permanently.

KNDS as the industrial backbone of European Main Battle tank (MBT) design (Leopard 2 and Leclerc) in all aspects (development, design in service support) and developer of various innovative concepts like modular systems and unmanned turrets is approaching the design of future MBTs and MGCS on the following three Pillars:

- Evaluation of various new technology concepts in existing MBT design and KNDS E-MBT 2nd Gen;
- Developing the overall operational approach concerning manned and unmanned operations on the basis of evaluation of technology and CONOPS in leading self-developed realistic combat simulators;
- Developing key technology subelements like new gun systems and ammunitions e.g. ASCALON.









# KNDS

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