

Press release

Nexter prepares the future of battle tank armament

14th November, 2021

Leaning on its expertise in battle tank armament, illustrated by the Leclerc's self-loading gun, and on the excellence of its ammunition activity, Nexter (KNDS group) is presenting a new main armament concept for main battle tanks, designed to deal with future heavily armoured threats. This breakthrough weapon represents a major contribution by the French industry to achieve at the end of a cooperative development: a new common solution for France and Germany enhancing the value of distributed activity and balanced skill contributions within the European DTIB.

By 2040-2050, allied nations will potentially face the return of high-intensity confrontations. In the land domain, armies will have to equip themselves with modern means for tactical superiority, manned or unmanned, integrating numerous systems, reaching the highest levels of protection for the crew and the capacity to neutralize the adversary. Faced with numerous and hardened threats, winning the battle from the outset will require shooting faster, farther and with a higher destructive capacity on the first shot, while reducing logistical and ergonomic constraints.

Next generation large-calibre weapons will have to be able to guarantee the armed forces tactical superiority not only tomorrow (2035), but also for the following decades. In order to meet this ambitious objective, Nexter is developing an innovative concept that has the potential to evolve and deliver performance that current technologies no longer offer. Taking advantage of its long experience with the 120mm smoothbore gun of the Leclerc tank, its mastery of telescoped ammunition as well as the maturity achieved during firing campaigns with a 140mm calibre, Nexter is proposing the **ASCALON** concept ("Autoloaded and SCALable Outperforming guN") designed to cope with the latest generation of heavy armour while staying ahead of the threats of the next half-century.

Based on technical solutions that will be fully mature by 2025, ASCALON offers an open architecture designed to serve as the basis for cooperative development under the Franco-German MGCS programme. This concept lays the foundations for the future European battle tank gun and ammunition standard, drawing on previous experiences with allies, such as in the 140mm FTMA gun programme.

Thanks to its breakthrough features, ASCALON is characterised by:

- **A wide choice of terminal effects:** the enlarged calibre enriches the range of ammunition for an optimal effect on the target thanks to rods of unparalleled length. It also makes it possible to foresee intelligent ammunition for firing beyond direct sight (BLOS/NLOS), which will provide new capacities while reducing the vulnerability of the tank.
- **Compact ammunition:** with a maximum length of 130 cm, ASCALON telescoped ammunition will be more compact than an equivalent calibre ammunition. It can be stored and integrated in a self-loading turret, a technology mastered by Nexter and proven over many years on the Leclerc tank.

- **Increased firepower:** the optimised chamber offers exceptional operational performance with an energy level close to 10 megajoules for kinetic ammunition, while remaining below the internal pressure level of current calibres. This untapped potential will enable the weapon to evolve to a performance class of 13 megajoules capable of addressing any threat over the next 50 years.
- **A controlled blast effect:** an innovative muzzle brake, adjusted external pressure fields and an optimised firing impulse will strongly limit the blast effect of the shot. ASCALON will thus allow the presence of infantrymen in the vicinity of the tank for joint combat, particularly in urban areas.
- **Exceptional integration capacity:** thanks to a controlled impulse, ASCALON will have a recoil and acceleration effort compatible with mobile and projectable platforms weighing less than 50 tonnes, while preserving the vehicle's layout capabilities.

Relying on Nexter's long experience in the field of tank guns and telescoped ammunition, offering an architecture conducive to balanced industrial cooperation, the ASCALON concept has all the assets to become **the standard gun for future heavy battle tanks. Its dedicated ammunition is the only one technological and tactical superiority for the coming decades.** ASCALON is a breakthrough weapon for breakthrough land combat systems.

About Nexter

Nexter, the leading French land defense company and third European player in the ammunition sector is part of the KNDS Group. The scope of its business includes as well the supply of weapon systems and ammunition for air and naval forces. Nexter also provides systems and protection solutions in the field of homeland security. The group continues to apply its international development policy with 69% of the order intake in 2019 intended for the export market. In France, Nexter is fully committed to meeting the objectives of the SCORPION program, through the upgrade of the Leclerc tank and the development of the VBMR GRIFFON and EBRC JAGUAR vehicles within the temporary business venture between Nexter, Thales and Arquus, as well as the Lightweight VBMR SERVAL. Nexter's 2019 turnover amounted to €2,5 billion. The group's range of products also includes TITUS® and VBCI armored vehicles, CAESAR® and 105LG1 artillery systems, smart ammunition (BONUS), robots, many equipment, as well as customer service, support and revaluation.

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