

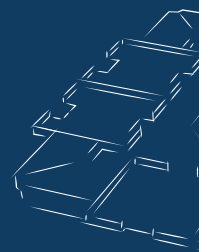
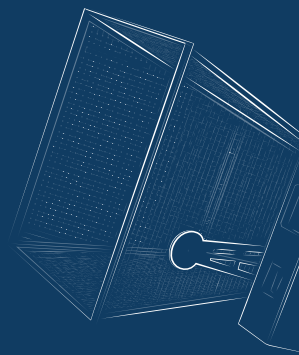


DIEHL
Defence

LIVING IN A SAFE ENVIRONMENT

Technology for peace and freedom

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TO PROTECT HUMAN LIFE



Helmut Rauch
CEO Diehl Defence

The world is changing noticeably. Germany and its partners must prepare themselves for new conflicts and threat scenarios – and they must do so now. Diehl Defence is an established partner for its customers' armed forces. We develop and manufacture state-of-the-art products for the defence and protection of people.

For decades, the developments of our engineers have been setting standards in the defence industry. These include our guided missiles and ammunition for air, sea and land forces. Today, we are a leading system house in the field of ground-based air defence. Our solutions are used by the Bundeswehr and its allies, as well as by many other armed forces around the world. With around 4,000 employees – most of them in Germany – we are one of the top employers in the defence technology sector.

Quality is our trademark

Highest quality and best possible efficiency are the key features of our products. For example IRIS-T SLM: it is one of the most precise air defence systems currently used in the world. I am proud of this achievement and the fact that the technology we have developed is already helping to protect lives. RAM is also a good example: this self-defence system for naval vessels, equipped with our seeker technology, sets the global standard in its class. RAM is standard armament for the majority of NATO navies. The same holds true for SMARt: with its explosively formed projectile, the world's first intelligent sensor-fuzed artillery ammunition is effective against all currently known main battle tanks.

The Bundeswehr is our main customer, and we have been its reliable partner and supplier almost since its inception. It is important to me that our products provide our armed forces with capabilities that contribute to our nation's defence potential and to the best possible defence of our country and its allies. Diehl Defence has numerous subsidiaries that help us achieve this goal. Two examples are: the unsurpassed fuze systems from JUNGHANS Defence and the high-quality sensor systems from AIM Infrarot-Module.

Equipped for the future

This applies equally to the skills that will be needed in the future and the technologies that will underpin them. That is why we invest heavily in research and development. We strive to anticipate future

Helmut Rauch, CEO Diehl Defence

"We strive for the highest quality and performance. In the defence technology sector, Diehl Defence products have been among the best on the world market for decades. To ensure that this remains the case in the future, we are investing in research and development so that Germany and its allies are prepared for the threats of tomorrow."

scenarios, respond to emerging threats in good time – and develop the best possible defence technologies to counter them. I would like to mention drones here. Reality shows what a high threat potential they have become in both civilian and military applications. With HPEM, we have developed a hitherto unique, non-lethal technology for effective defence against drones.

And we have our eyes on the future. What will the conflicts and threats of tomorrow look like? What technologies will we need to defend ourselves against them? We are contributing to the development of the Future Combat Air System (FCAS). The project is breaking new technological ground in certain areas and posing completely new challenges for the companies involved. I am therefore all the more pleased that technologies from Diehl Defence are supporting the project in the areas of sensor systems and guided missiles. With regard to hypersonic missiles, we are wor-

king on the latest high-tech sensor system to detect ultra-fast missiles in good time. And using the IRIS-T technology, we are developing a missile that can effectively combat hypersonic threats.

Customer in focus

One thing is particularly important to us: we not only supply the best products tailored to the individual needs of our customers, but we also offer our customers long-term support during their use. Whether through training, emergency repairs or long-term support in the form of on-site maintenance and service, our focus is always on operational readiness throughout the product life cycle.

In this way, we ensure that our country and its people are protected against threats in the best possible way – which is essential if we want to continue to live freely also in the future.

DIMENSION AIR

High-tech precision for aerial combat



Combats between fighter jets place the highest demands on man and material. The best technologies are needed to strike enemy aircraft and missiles with pinpoint accuracy. Diehl Defence develops and manufactures guided missiles for all common types of fighter jets and they meet these requirements.

IRIS-T: the latest generation of guided missiles

IRIS-T is currently the world's most modern and powerful guided missile for short-range and very short-range air-to-air combat. It is ideal for protection against highly agile, moving, aerial targets. The advantages in detail:

+ Unique 360-degree protection:

The agility of IRIS-T is unsurpassed worldwide. The guided missile flies aerodynamically and with thrust vector control in the narrowest of curves and can engage targets in a 360-degree radius. To do so, IRIS-T combines the data from its own sensors with information from the aircraft's sensor system.



360
degree protection
with IRIS-T

+ Highest target accuracy:

A high-resolution IR seeker head and the latest image processing technologies ensure unrivalled target detection and tracking, resulting in above-average accuracy in targeting enemy jets as well as attacking guided missiles. IRIS-T's coverage range, i.e., the area covered by the seeker, is up to five times greater than that of previous models.

+ Flexible integration:

IRIS-T can be integrated into over 90 percent of Western-design fighter jets, including the Gripen, Eurofighter Typhoon, Tornado, F-16 and F-35. A digital connection is just as possible as analog integration – with certain trade-offs to the functionality.

IRIS-T has been developed by a European consortium under the leadership of Diehl Defence. This guided missile contributes significantly to the effectiveness and independence of European defence. We are currently working on concepts to develop it further using the latest technologies.

Air-to-surface armament

During conflicts, targets on the ground are also attacked from the air - if possible, without endangering innocent people. Diehl Defence provides important technologies for this:

+ Mk-83 Trojan Improved Penetrator:

This armament for fighter jets is based on the standard Mk-83 bomb, which is equipped with a penetration dart inside. This means that fixed targets such as bunkers can be penetrated and subsequently destroyed from the inside. Diehl Defence developed the weapon for the Eurofighter and will supply it to the Bundeswehr from 2024.

+ SPICE-250 missile family:

The ammunition for the Eurofighter hits ground targets at a distance of up to 150 kilometers. Depending on the scenario, the missile is available as a gliding or motorized variant equipped with different active charges. The tried-and-tested EO/IR seeker technology makes the missile highly precise. The pilot also receives high-resolution image and video data of the mission and can intervene at any time if necessary. Diehl Defence manufactures and sells the missile – developed by Rafael – in Germany.

Sidewinder: NATO guided missile

In its various versions, starting with the AIM-9B, the air-to-air missile Sidewinder has been the standard missile for nearly all fighter jets of NATO and its allies for many decades. Thanks to its analog integration interface into the aircraft, there is no need for complex digital integration. The pilot instructs the Sidewinder about the target, and the Sidewinder confirms target acquisition both visually and acoustically before striking the target independently as a fire-and-forget missile. Since the 1960s, Diehl Defence has been producing the basic version of the missile, which was developed by the U.S. Navy, as a European general contractor and has successfully introduced several further developments. The latest version, the Sidewinder AIM-9L/1, is still in production today. More than 40,000 units have been delivered to date.



40,000

Sidewinders
delivered



Training: ready for mission

Diehl Defence sees itself as a long-term partner. We offer our customers training for all products. Using the example of guided missiles, this includes:

- + On-site inspection:
Together with our customers, we carry out site inspections to check whether premises such as warehouses are suitable for our systems, for example with regard to cooling.
- + Training of ground staff: How to mount and dismount missiles? How to carry out repair work? How to optimally handle explosives? Our experts provide detailed instructions on these points.
- + Pilot training: We train pilots to use our guided missiles. Diehl Defence experts are on site to explain the capabilities and strengths of products.



DIMENSION SEA

Effective protection for ships



76mm ammunition
in service in
>20
navies
worldwide

Ships are high-value targets and are therefore exposed to particular threats during conflicts. Diehl Defence develops effective defence systems as well as guided missiles and ammunition that can be deployed in various scenarios. These innovations are used by navies worldwide and set the standard for precision, range and safety.

Unique defence with RAM

Naval vessels have to be protected from attacks by enemy anti-ship missiles, especially from the air. These missiles are fired at long range by fighter jets or enemy surface vessels, for example. Naval vessels have various systems on board to protect themselves against such a threat. The RAM (Rolling Airframe Missile) weapon system is the most effective of all self-protection systems against fast and low-flying anti-ship missiles. RAM sets the global standard for the so-called "Close-In Weapon Systems", which is why ten navies have now opted for this self-protection system. All frigates and corvettes of the German Navy are equipped with RAM. Nearly all ships of the U.S. Navy, including aircraft carriers, are equipped with RAM and

RBS15 Mk4
range of more than
300
kilometers

the Arleigh-Burke-class destroyers will be retrofitted with RAM in the future.

with an increased range of more than 300 kilometers.

+ 76mm naval ammunition:

Thanks to its design with an imaging IR seeker and passive radar, RAM offers unparalleled precision in the marine close-range. The missiles and the weapon system are manufactured jointly by the cooperation partners Diehl Defence, Raytheon and MBDA Deutschland. The RAM weapon system is regularly developed further within the same industrial cooperation. The latest version, RAM Block 2B, is being introduced since 2023.

The conventional 76 mm caliber ammunition is standard equipment for engaging sea, air and land targets at ranges of up to 18 kilometers and is used by more than 20 navies worldwide. The high-quality fuzes from Diehl Defence subsidiary JUNGHANS Defence guarantee the highest quality, because they only fire when they are supposed to. The insensitive 76 mm ammunition MIND76 recently developed by Diehl Defence can engage anti-ship missiles, ships and air targets even in highly electromagnetic environments thanks to its fuzes. MIND76 is already being used by two navies.

Armament for the offensive

Naval vessels have specialized capabilities for combating surface, underwater, air and land targets. Diehl Defence manufactures the following guided missiles and ammunition for precise target engagement:

+ RBS15 Mk3:

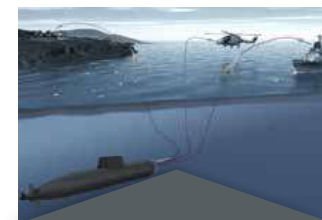
The heavy anti-ship missile engages ships and land targets at a range of more than 200 kilometers. It flies just above the water surface to make it as difficult as possible for enemy defence systems to locate and engage it. At the same time, the RBS15 Mk3 can maneuver in paths that the enemy cannot predict and, if necessary, can also deliberately fly past the target only to re-attack it immediately afterwards from a different direction. The missile, jointly developed by Diehl Defence and SAAB, is deployed on all German corvettes as well as internationally by numerous navies. Diehl Defence and SAAB are currently developing the new RBS15 Mk4 missile

+ 127mm full-caliber naval ammunition:

The conventional 127mm caliber ammunition engages sea, air and land targets at ranges of up to 27 kilometers. As with the 76mm naval ammunition, Diehl Defence also manufactures both practice and combat ammunition for the 127mm variant.

+ VULCANO 127mm:

The 127 mm caliber guided naval ammunition also engages targets at sea, on land and in the air with high precision and has a range of up to 70 kilometers. Guided by satellite navigation during the initial flight phase and by a laser or IR seeker head during the terminal phase, this ammunition can also engage moving targets. VULCANO is deployed on various frigates and destroyers of numerous navies worldwide.



IDAS: revolutionary defence for submarines

Submarines, especially those of the German Navy, are extremely difficult to detect under water. Their greatest protection is their extremely low noise signature, so the biggest threat is not from surface units, but from anti-submarine helicopters with dipping sonar buoys. So far, there is no effective defence against this type of aerial threat. With IDAS, Diehl Defence and thyssenkrupp Marine Systems are jointly developing the revolutionary IDAS weapon system. This is a missile that is launched from the torpedo tube of the submarine. After the underwater flight phase, it emerges from the water surface, scans the expected target area and independently engages the helicopter. Another groundbreaking feature is the permanent connection between the missile and the underwater submarine via a fiber optic cable, so that the operator in the submarine can continuously monitor the trajectory and the live transmission of the seeker head image and can intervene if necessary.

DIMENSION LAND

Precise target engagement



SMAR
penetrates

15

centimeters
of armored
steel

Diehl Defence develops and produces state-of-the-art effectors for the infantry, tube and rocket artillery of the Bundeswehr and NATO armies. The products engage enemy troops, main battle tanks, vehicles and high-value targets with maximum precision and reliability.

Striking power for the infantry

Diehl Defence supplies infantry units with conventional 40 mm caliber ammunition that can be fired from automatic grenade launchers or from weapon stations. Diehl Defence also supplies the Bundeswehr with standard DM51A3 hand grenades and practice hand grenades.

Diehl Defence offers the highest level of safety and reliability for all its ammunition products. The main key is the fuze systems: we only use high-tech fuzes from Diehl Defence's subsidiary JUNGHANS Defence, which ignite exactly when they are supposed to – whether on impact, in the air at a predetermined distance from the target or with a so-called "impact delay", i.e., only after penetrating the first metal layer of a vehicle. Plus: if the ammunition misses its target, it does not ignite but disinteg-

rates itself after a while, thus minimizing duds.

Long ranges for the artillery

Tube and rocket artillery play an important role in armed conflicts. Rocket artillery can be used to engage high-value targets at ranges of up to 150 kilometers with precision. At shorter ranges of up to 40 kilometers, tube artillery engages in firefights to wear down enemy units before they enter into direct combat:

+ DiNa 155mm and 2DGMart:

Diehl Defence produces the joint product DiNa 155mm together with Nammo on a national production line. The 2DGMart guidance module developed by us increases the range to up to 40 kilometers – with significantly improved precision.

+ SMAR 155:

The world's first intelligent sensor-fuzed artillery ammunition is unique in terms of its all-weather resistance, penetration and effectiveness. The SMAR 155 is launched over the target area and uses three sensors to detect ground targets

as it descends. Once the target is detected, an explosively formed projectile is created that can penetrate up to 15 cm thick armored steel.

+ VULCANO:

For the first time, the ammunition family offers a high-range effector. The extraordinary precision is achieved through GNSS mid-flight course guidance and a terminal homing seeker. VULCANO is available in three versions as a sub-caliber ammunition (Ballistic Extended Range, BER), Guided Long Range (GLR) and Semi Active Laser (SAL). In the SAL version, VULCANO strikes moving targets at a range of up to 70 kilometers with terminal phase guidance and an accuracy of less than three meters.

Diehl Defence improves the capabilities of rocket artillery by combining long ranges with flexible and precise target engagement.

+ Guided artillery rocket with modular AT2 warhead:

With the aid of a modular warhead for guided artillery rockets, anti-tank

obstacles can be laid up to 150 km away. Depending on the carrier rocket, a warhead can hold up to 30 submunitions, which can be deployed flexibly and precisely according to tactical requirements. AT2 submunitions can effectively stop any currently known armored combat vehicle.

+ Guided artillery rocket with modular SMAR warhead:

Tank units stopped in this way or other stationary tank units can be effectively engaged with the SMAR warhead in the "top attack" mode. Each guided artillery rocket holds four SMAR submunitions, which are launched precisely over the target. The submunitions thus form an overlapping search pattern (4 x 30,000 m²), within which they automatically detect and engage main battle tanks.

Diehl Defence offers practice ammunition for all available effectors in order to train procedures cost-effectively. The company is currently working with other manufacturers on effectors that cover ranges of more than 150 kilometers.



SPIKE: anti-tank defence for the infantry

SPIKE LR and its successor LR2 are the standard anti-tank missiles against armored targets in most European countries. Thanks to its ultra-modern, all-weather optronic sensors, SPIKE hits with maximum precision and penetrating power. The shooter also always has the option of redefining targets after firing, or even aborting the mission. Diehl Defence produces the SPIKE LR and LR2 missiles as part of the RAFAEL-Diehl Defence-Rheinmetall cooperation, represented by a joint venture, the program company EuroSpike.

GROUND-BASED AIR DEFENCE

Offering maximum safety

Be it fighter jets, helicopters, cruise missiles or enemy drones – airborne threats in military conflicts can be manifold. In the event of a crisis, the quality of air defence determines the safety of civilians and soldiers. Ground-based systems are of significant importance here.

Ground-based air defence systems for effective protection

Air defence systems from Diehl Defence guarantee the best possible protection. The technology is based on the world-renowned IRIS-T guided missile for fighter jets. In a "surface launched" version, the air-to-air missile can be launched from the ground. The main features of our air defence systems are:

+ Flexible altitude coverage:

IRIS-T SLS and SLM are the two options available. The more cost-effective SLS variant is capable of firing at altitudes of up to 6 kilometers, while the more powerful IRIS-T SLM variant is suitable for high-flying targets such as fighter jets or medium-size drones at altitudes of up to 20 kilometers.

The importance of ground-based air defence systems has recently become much more prominent again. The systems protect population centers, critical infrastructure and strategic targets from airborne threats. With innovative and globally unique technologies, Diehl Defence offers security in numerous scenarios.

5,000

km²
of protected area





Hit rate in
service of almost

100
percent



+ Maximum area coverage:

IRIS-T SLS and SLM enable comprehensive 360° defence. SLS, the agile and rapidly deployable variant of the ground-based air defence system, is ideal for protecting point targets such as power plants, bridges or individual armed forces units. With a single launcher and with similar manpower requirements, the SLM system variant covers regions of up to 5,000 square kilometers, enabling coverage of larger population centers or military operation areas.

+ Highest precision:

With a hit rate of almost 100 percent, IRIS-T SLM is one of the most precise air defence systems in the world. This is primarily made possible by the imaging IR seeker head, which reliably acquires and heads for targets. The IRIS-T SLM guided missile offers excellent maneuverability and is capable of hitting fast-flying and agile targets within seconds. In contrast to older systems that rely on fragmentation, IRIS-T SLM can differentiate between a proximity hit and direct hit and thus deploy the warhead optimally.



GUARDION for GBAD: protection of high-value military targets

Diehl Defence's HPEM (High-Power Electro-Magnetics) systems combat airborne threats by disrupting the control electronics of unmanned aircrafts by emitting electromagnetic pulses (see page 18/19). This makes the systems ideal for protecting military infrastructure and high-value targets – such as the radar of an IRIS-T SLM fire unit – with a comprehensive 360-degree protection against sUAS (small unmanned aerial systems). In the so-called GUARDION for GBAD, the drone defence system is mounted on trucks and positioned around the IRIS-T SLM fire unit. This means that mini and small drones can be reliably fended off and the GBAD system protected.

+ Open system-architecture:

Diehl Defence supplies IRIS-T SLM as an overall system including the radar for detecting air targets, the tactical operations center for operational command in a network and the launcher. IRIS-T is an open architecture system and can be integrated into existing structures such as radar-, sensor- or command and control systems – tailored to the mission – and Diehl Defence is the only supplier worldwide to guarantee this. This means that the system can also be flexibly adapted to new technologies and expanded in the future.

+ Maximum flexibility:

IRIS-T SLM is a ground-based air defence system that can be mounted on various carrier vehicles for mobility. Thanks to their standard dimensions, both SLS and SLM can be moved quickly and within a few days, e.g., by military air transport on the A400M, by rail or by ship. They support the flexible projection of forces in remote areas of operation, and the delay-free operational readiness of the air defence system on site ensures protection against airborne threats. This is done with minimum manpower and without undue exposure of the personnel in the area of operation.

Defence system with a future

To date, Diehl Defence has over 30 systems under contract worldwide, some of which have already been delivered. The Bundeswehr also uses the IRIS-T SLM. We guarantee the functionality and logistical support of the overall system. The air defence systems also undergo continuous development. We are currently working on a highly mobile deployment variant of

IRIS-T SLS that protects individual units and convoys or supports military evacuation operations. An all-new SLX variant is expected to reach altitudes of up to 30 kilometers and cover an area of up to 20,000 square kilometers. The systems will also be used in ship-based defence in the future. The high-tech innovations offer the best possible protection for current and future threats.

Up to
20
kilometers
of altitude range
with IRIS-T SLM



PROTECTION SYSTEMS

Targeted interference of electronics with HPEM



Up to
5
kilometers
detection range.

Vehicles, drones and military equipment – they all work through to the interaction of built-in electronics. A standstill occurs if the electronic control components can no longer interact with each other. Diehl Defence makes use of this with its globally unique HPEM technology: The system specifically affects the electronic systems of target objects without causing permanent damage or endangering third parties. Police and military applications are manifold.

HPEM SkyWolf: reliable defence against drones

High-Power-Electro-Magnetics (HPEM) technology, HPEM for short, is particularly suitable for drone defence. It complements previously available methods. As background information: in addition to kinetic defence – for example shooting down drones – there are other drone defence methods but often with a limited target range. Electronic defence usually uses jammers that interfere with the drone's radio or GPS signal, forcing it to abort its mission. The problem: they are powerless against autonomously controlled drones that do not have a radio link. The Diehl Defence System HPEM SkyWolf, which can disrupt the drone's control electronics and safely incapacitate devices, is different. The HPEM SkyWolf can also fend off

swarms of drones. For the most efficient and wide-ranging defence possible, it can also be combined with a wide range of jammer technologies for the most efficient and wide-ranging defence possible.

The HPEM SkyWolf is also part of the comprehensive GUARDION drone defence system developed by Diehl Defence in cooperation with several partner companies. The GUARDION system detects potentially dangerous drones and offers a selection of different defence measures. The system can be customized according to customer requirements:

- + Permanently installed systems protect, for example, prisons or critical infrastructure.
- + Mobile systems are used for safety at major events.
- + Military systems fend off potential drone attacks on high-value targets.

GUARDION has already been deployed at events such as the G7 summits, at official celebrations of the German Unity Day and at several major international sporting events.

HPEM is highly versatile

Diehl Defence is continuously working on further developing the HPEM technology, especially in the military sector. For example, as part of the "Counter IED" project, Diehl Defence developed solutions for protecting convoy vehicles or aid-convoys against booby traps. To this end, individual vehicles are equipped with the HPEM sys-

tem, which disables booby traps before they can cause any damage.

There are various other areas of application. For example, the HPEM technology could be used in the maritime sector to protect ports from unauthorized boats or to stop suspicious vehicles on the road or at events.



Head of Marketing & Sales Protection Systems

"Until a few years ago, there were hardly any ways to effectively fend off drones in the hands of criminals. The initial impetus for the development of our SkyWolf came when a drone suddenly started hovering over German Chancellor Angela Merkel at an election campaign event in 2013. Today, we can intelligently disable such unmanned aerial vehicles."

BATTLEFIELD OF THE FUTURE

Guaranteeing the safety of tomorrow



Diehl Defence has been developing world-leading technologies for effective defence for decades. We want to use our expertise to prepare Germany, Europe, NATO and NATO-equivalent countries for future challenges as well.



Remote Carrier and FCAAM: the next level of air sovereignty

Germany, France and Spain are jointly developing the Future Combat Air System (FCAS). The vision: various air units are networked and operate somewhat autonomously. We are involved in the development of a sensor system for so-called remote carriers. We are also developing a light-weight remote carrier, which will operate within the FCAS framework and beyond. In a swarm, they are supposed to carry out reconnaissance missions independently in a swarm or suppress enemy air defences, for example. As part of the industrial consortium FCMS (Future Combat Mission System), Diehl Defence is developing the highly complex sensor technology for this. A demonstrator is planned for 2027. FCAS should be ready for production in 2040.

We are also working on the successor of the IRIS-T guided missile. It will be even more agile and versatile. The Future Combat Air-to-Air Missile (FCAAM) will have a more powerful sensor system and will be able to operate in a networked manner within the FCAS framework. This means that the new generation of air-to-air missiles will be able to cope with all future threats. It could also be used in combination with remote carriers to achieve, for example, automated allocation and transfer of targets to each other in complex situations.

Autonomous systems: high-tech support vehicle for the infantry

Diehl Defence also helps ground troops meet tomorrow's challenges by developing state-of-the-art systems, such as the

PLATON autonomy retrofit kit.

The technology can be installed in military trucks or tanks within days, making them ready for autonomous driving, especially off the road. Autonomous vehicles approach targets independently or complete missions together with other (semi-) autonomous vehicles and drones.

A first, concrete application is to be used by the Bundeswehr and other armies as early as 2026: the small tracked vehicle ZIESEL is designed primarily for operations in forest areas, where it can transport equipment, perform reconnaissance or evacuate injured soldiers fully autonomously and electrically. ZIESEL will be unique in the world with this combination.

LIBELLE: ammunition of the future to protect soldiers

Lives of soldiers are at immediate risk, especially in ground combat. With the LIBELLE ammunition, Diehl Defence has developed a solution that replaces the previously used shoulder-fired anti-tank missiles and is also effective against modern tanks with distance-active protection

systems. The shooter can launch the LIBELLE at ranges of up to 10 kilometers and let it hover the target area for up to 20 minutes.

The special feature: LIBELLE is equipped with an evolution of the worldwide unique warhead known from the SMArt 155 sensor-fuzed artillery ammunition. LIBELLE can independently detect enemy vehicles and, upon command from the soldier, generates an explosively formed projectile that penetrates tank steel. The technology is on the verge of being launched on the market.

Hypersonic defence: anticipating the threats of tomorrow

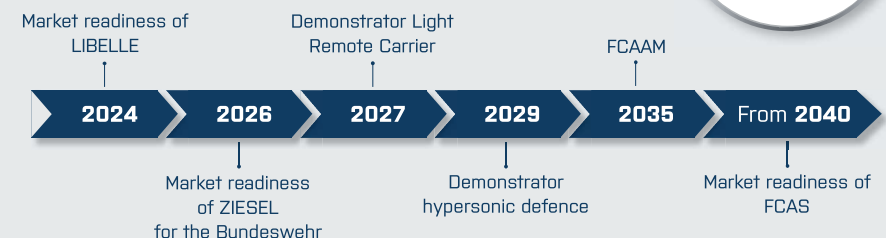
One of the greatest challenges in designing future defence technology is the ultimate inability to know exactly what potential adversaries are developing. A prime example are hypersonic missiles, i.e., missiles traveling at a speed of at least

five times the speed of sound, which may attack from outside the atmosphere from a range of thousands of kilometers. Due to their high speed and maneuverability, the attacking threats could not be detected in time and their trajectory could not be predicted using current technologies. Diehl Defence is working on two things: on the one hand, we are working on the latest-networked sensor systems that can be used, for example, in satellites or on ships to detect hypersonic missiles and send out a warning signal within seconds. On the other hand, we are also developing a missile based on the IRIS-T technology that will launch immediately after a warning signal is triggered and can reliably neutralize approaching hypersonic threats. Development has started in 2023 and a demonstrator is planned for 2029.

Head of Business Unit "New Technologies"

"There is no telling what systems we may have to defend ourselves against one day. But we should conscientiously explore all options and develop answers – so that we can continue to defend Germany effectively in the future."

Technologies for the battlefield of the future



FCAS
will be
2040
ready for
operation from

CUSTOMER SUPPORT

Support all the way to the area of operation

Diehl Defence's products protect lives. To do so, they must operate reliably for decades and be ready for use on an ad hoc basis. Intelligent maintenance approaches and the ability to repair damage at short notice are essential for this. Diehl Defence Customer Support ensures this right from the start. We serve the wishes and requirements of our customers-remotely, by setting up our workshops at the customers' military facilities or through mobile teams on site.

Live Integrated Logistic Support

Customer support already plays a key role in the development of new products. Our specialists contribute their experience and have the entire service life in mind: Which components need to be mounted within easy reach? How to identify and predict failures? Which tools and spare parts need to be kept in stock? And what are the life cycle costs? Defence products are in service for up to 30 years and more. More than half of the total costs are attributable to usage. The Customer Support team forecasts these costs and makes recommendations. The end result is a sophisticated support system that works alongside the product.

Our products are
in use for more than

30
years.





More than
100
employees
serve customers
worldwide.

We support systems
in more than
25
countries.

Ensuring sustainable operation

Naturally, Customer Support focuses on usage. How do we provide concrete support in this phase?

+ Maintenance and service:

Regardless of whether military equipment remains in depots most of the time or is in continuous use, it must be reliably maintained. Diehl Defence guarantees this operational capability. We manage spare parts and tools in digital databases, send personnel to customers for regular checks or permanently maintain our own workshops on site.

+ Repairs:

In the event of errors or failures, products must be ready for use again as quickly as possible – sometimes even minutes can make all the difference. Diehl Defence's Customer Support experts are available remotely by phone or video. For longer deployments, Diehl Defence provides support all the way to the area of operation, for example with mobile workshops, spare parts vehicles or reloading vehicles. For major repairs, equipment and components are sent to the workshops at Diehl Defence locations or to Diehl Defence partners worldwide.

Head of Customer Support

"Engineers, physicists, technicians, IT experts and many other specialists work in Customer Support to ensure the operational capability of our systems and subsystems. They know the products of Diehl Defence from the bottom. They do everything they can to ensure that they work – even in adverse circumstances. And in the event of problems, the experts can directly connect with the relevant development department."

+ Training:

Diehl Defence's products are high-tech products. Soldiers must be thoroughly trained to operate them and must receive regular further training. We ensure this – through trainings on site or at our digital training centers. Technical manuals and videos, simulators and process trainers as well as AR and VR applications supplement the trainings. The most important element in this process is always our expert training staff.

+ Documentation and further development:

We provide interactive technical manuals for our products to give our customers the best possible support for operation and maintenance. As some experiences can only be gained when products are in actual use, we rely on customer feedback for the long-term improvement of our products and the support system.

Service life extension and phasing out

Military products have a service life of 30 years or more. Customer Support plays a decisive role in ensuring their functionality. Through targeted product monitoring, ammunition monitoring and overhaul management, Diehl Defence ensures sustainable operational availability and provides the basis for measures to extend service life. We also support customers closely at the end of the product life cycle and ensure that military products are disposed of properly.

Diehl Defence assumes system responsibility for all products over the entire product life cycle. Customer Support plays a key role here.

KEY COMPONENTS

Always the right specialists

Fuze systems from JUNGHANS Defence

Guided missiles, rockets and ammunition from Diehl Defence are, among others, equipped with fuze systems from JUNGHANS Microtec and JUNGHANS T2M. The Diehl Group holds a majority stake in the joint venture with Thales, and the company is a world leader in the development and production of fuzes – an important prerequisite for maximum precision and striking power.

Explosive devices from DynITEC

High-quality explosive devices are an essential component of the explosive chain in military systems. DynITEC supplies JUNGHANS Microtec and Diehl Defence, among others, with its products. DynITEC is one of Europe's leading manufacturers and produces explosive devices and the energetic materials they contain of the highest quality and reliability.

Sensor systems from AIM Infrarot-Module GmbH

One of Diehl Defence's core competencies is highly specialized sensor systems. Infrared technology is an essential part of it. With the affiliated company AIM Infrarot-Module GmbH, we have secured long-term access to innovations in this area. The company develops and manufactures premium infrared detectors and thermal imaging devices as well as Stirling cooling engines for civilian and military applications on land, at sea, in the air or in satellite programs.

Battery products from Diehl Energy Products

Diehl Energy Products (DEP) is a leading manufacturer of special batteries. The portfolio comprises three product lines: thermal batteries are primarily used to supply energy to detector and control units in missiles and guided ammunition. Fuze batteries supply intelligent ammunition fuzes with electrical energy. DEP develops and produces customized battery packs for defence and, increasingly, industrial applications. All products are characterized by high reliability and safety.

Packaging systems

Military technology products need to be transported and stored safely. Diehl Defence offers high-quality packaging systems, for example for tank ammunition, cartridges, mortar shells, anti-tank weapons, fuzes and hand grenades.

Depending on the requirements, the packaging is made of wood, metal or cardboard and is produced in different, sometimes customized, sizes. The products are tested to military standards and approved for sea, land and air transport. Hazardous material crates for batteries in the civil and military sectors complete the range.



DIEHL DEFENCE

Subsidiaries

AIM Infrarot-Module GmbH

AIM Infrarot-Module GmbH develops and manufactures premium infrared detectors and thermal imaging devices as well as Stirling cooling engines for civilian and military applications on land, at sea, in the air or in satellite programs.

Diehl Retrofit Missile Systeme GmbH

The tasks of Diehl Retrofit Missile Systeme GmbH include the modernization and marketing of Sidewinder missiles of the AIM-9L/I-1 series, their service life support and worldwide logistics.

Diehl Energy Products GmbH

Diehl Energy Products (DEP) is a leading manufacturer of special batteries, including thermal batteries, fuze batteries and battery packs. All products are characterized by high reliability and safety.

DynITEC GmbH

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EuroSpike GmbH

EuroSpike GmbH is a program company that markets the in Israel developed Spike missiles in Europe. Its shareholders are Diehl Defence, Rheinmetall and Rafael.

Gesellschaft für Intelligente Wirksysteme mbH

Gesellschaft für Intelligente Wirksysteme mbH (GIWS) is a joint venture between Diehl Defence and Rheinmetall Waffe Munition and develops and markets the SMArt 155 sensor-fuzed artillery ammunition and its derivatives worldwide.

PARSYS GmbH

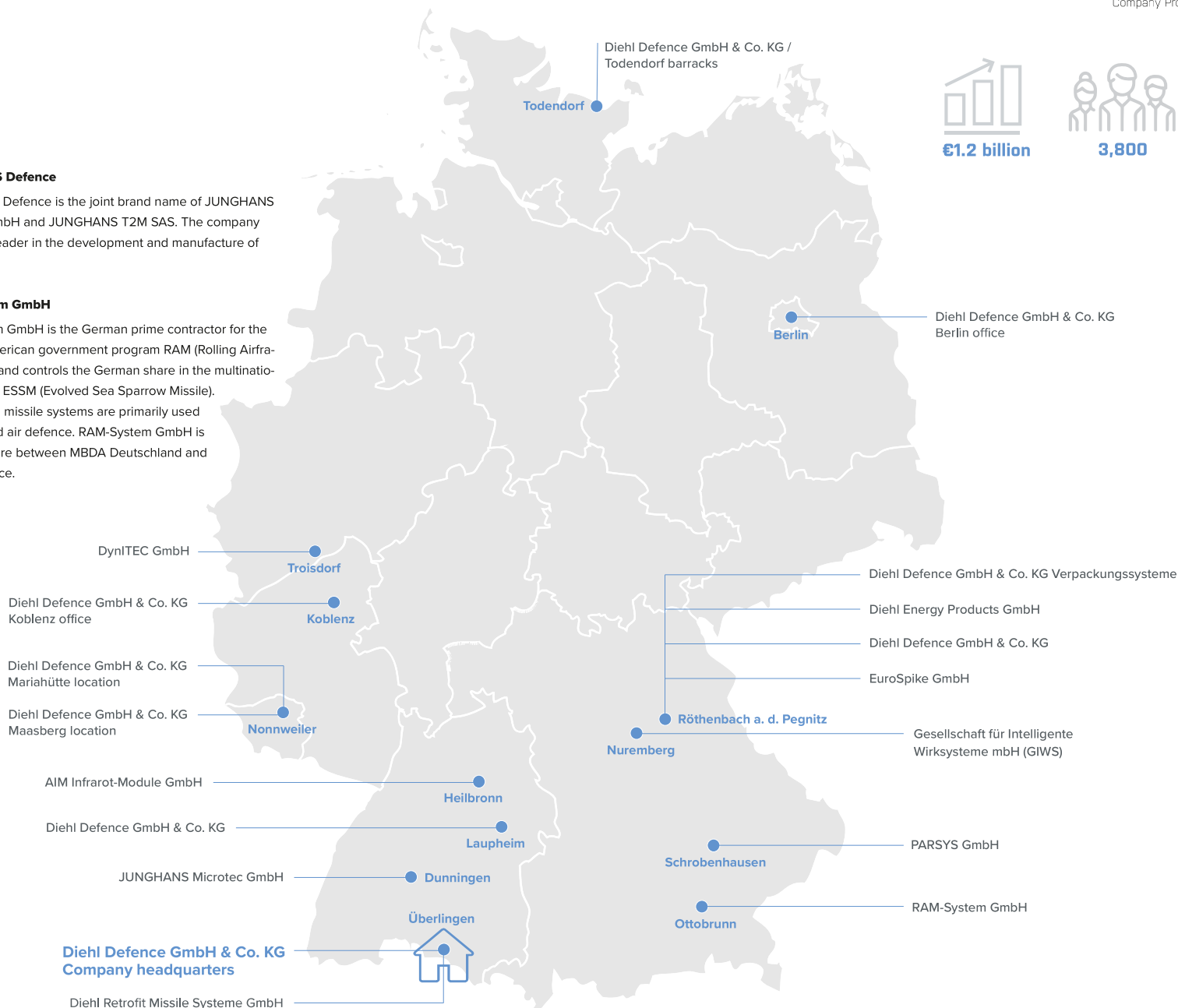
PARSYS GmbH is the general contractor for the PARS 3 LR missile – the main armament of the German Army's support helicopter Tiger. PARSYS GmbH is a joint venture between Diehl Defence and MBDA Deutschland.

JUNGHANS Defence

JUNGHANS Defence is the joint brand name of JUNGHANS Microtec GmbH and JUNGHANS T2M SAS. The company is a global leader in the development and manufacture of fuzes.

RAM-System GmbH

RAM-System GmbH is the German prime contractor for the German-American government program RAM (Rolling Airframe Missile) and controls the German share in the multinational program ESSM (Evolved Sea Sparrow Missile). Both guided missile systems are primarily used in sea-based air defence. RAM-System GmbH is a joint venture between MBDA Deutschland and Diehl Defence.



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JUNGHANS T2M SAS
La Ferte Saint-Aubin

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Diehl Defence Holding GmbH
Representative Office Bangkok

EGYPT
Diehl Defence Egypt Support Services
Cairo

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Publisher/editor:

Diehl Defence GmbH & Co. KG
Corporate Communications & PR
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