DIGITAL FORCES

// LAND OPERATIONS

TAKING RESPONSIBILITY IN A CHANGING WORLD

RHEINMETALL

// THE AGE OF INTEROPERABILITY

Multi-domain operations and strong alliances are more important than ever. An interoperable network and digitisation will give us the edge. With a real-time common operating picture, we enable our forces to act faster, earlier, autonomously and more precisely. As an expert in digitisation and systems integration with a vast network of partners, we take your force to the next level.

We have created the vision of a **“Digital Brigade”** as a model for deriving required capabilities from battlefield scenarios and demonstrating the benefits of digitisation.

We took a holistic view of the military capabilities of command and control, reconnaissance, effects and combat support. Then, taking into account the latest hardware and software solutions, we generated capability apps to give our customers superiority.

The Digital Brigade concept is driven by real-world scenarios and the real needs of the users. The Digital Brigade Demonstrator includes production-ready systems as well as minimum viable products to demonstrate operational benefits and to engage with our early adopter customers on features and requirements.

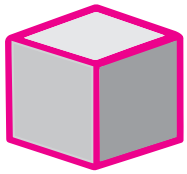
www.rheinmetall.com/digitalforces/land

// ONE TECHNOLOGY FOR A THOUSAND FEATURES

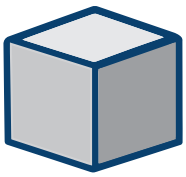
To bring these apps into our customers' infrastructure, a key connecting technology is required:

Blackned's Tactical Core, a state-of-the-art middleware. It enables end-to-end encrypted access to the tactical information of a digitised brigade and is certified by the German Federal Office for Information Security (BSI) for handling NATO restricted data. By providing access to battle management system, sensor and effector data based on an open architecture, the Tactical Core can be seen as an app store for military platforms. Software libraries enable the creation of any new functions and applications.

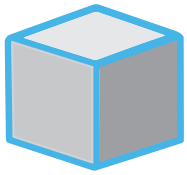
Four of these amazing apps are now presented to you.



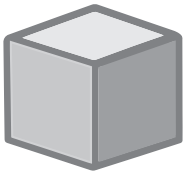
// NETWORKING



// SWARMING, UNMANNED TEAMING



// DIGITAL TWIN



// FORCE DEPLOYMENT

Reconnaissance and sensor systems

Weapon stations

TacNet – Tactical battle management system

Soldier system Gladius 2.0

Laser aiming devices & Laser light modules

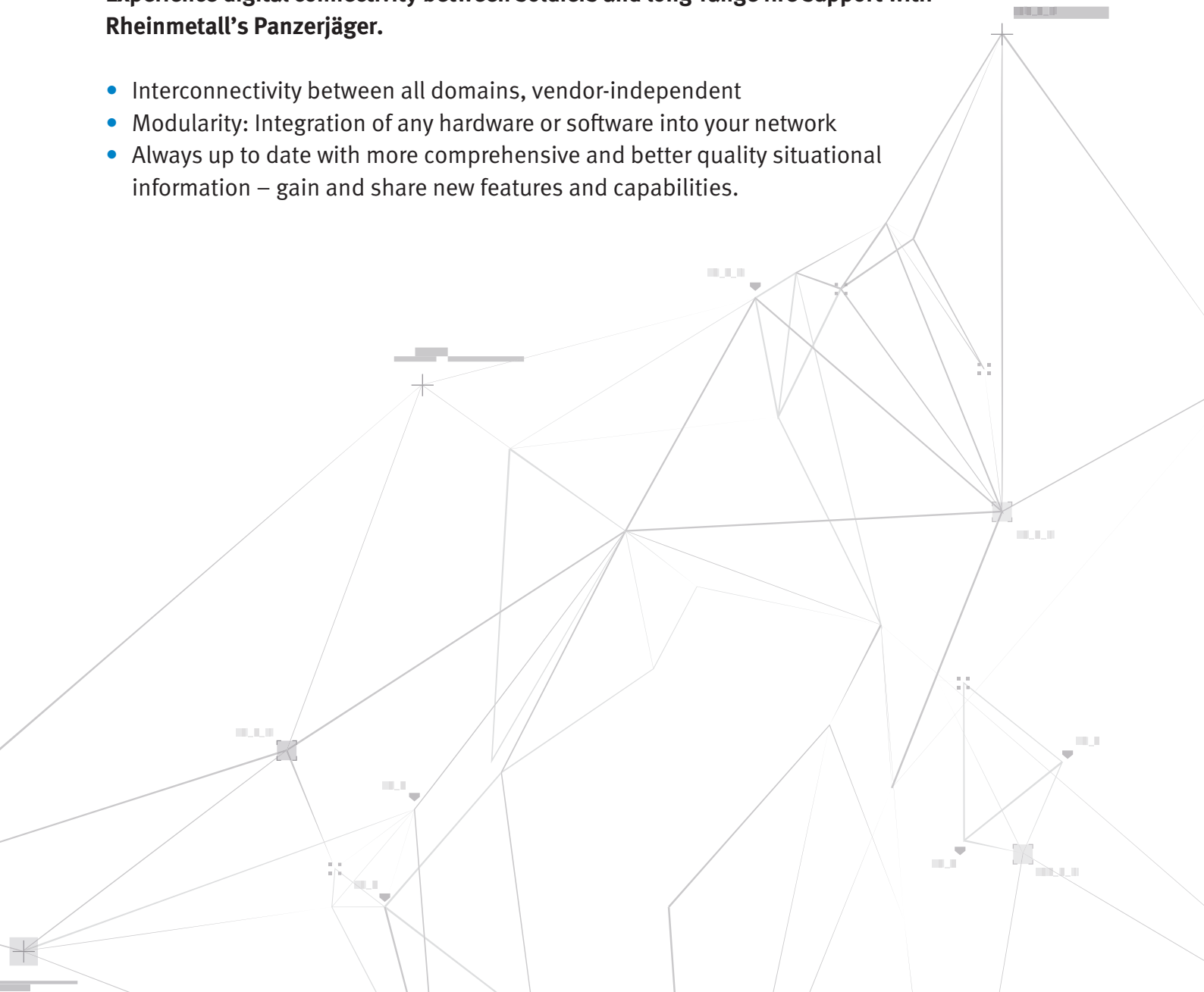
// APP NETWORKING

The common information space allows us to improve the sensor-to-shooter chain on our platforms.

Through the Tactical Core, this technology creates additional value by securely disseminating relevant data across all platforms. AI-based target identification and classification can be used to accelerate the sensor-to-shooter chain, even across multiple platforms.

Experience digital connectivity between soldiers and long-range fire support with Rheinmetall's Panzerjäger.

- Interconnectivity between all domains, vendor-independent
- Modularity: Integration of any hardware or software into your network
- Always up to date with more comprehensive and better quality situational information – gain and share new features and capabilities.



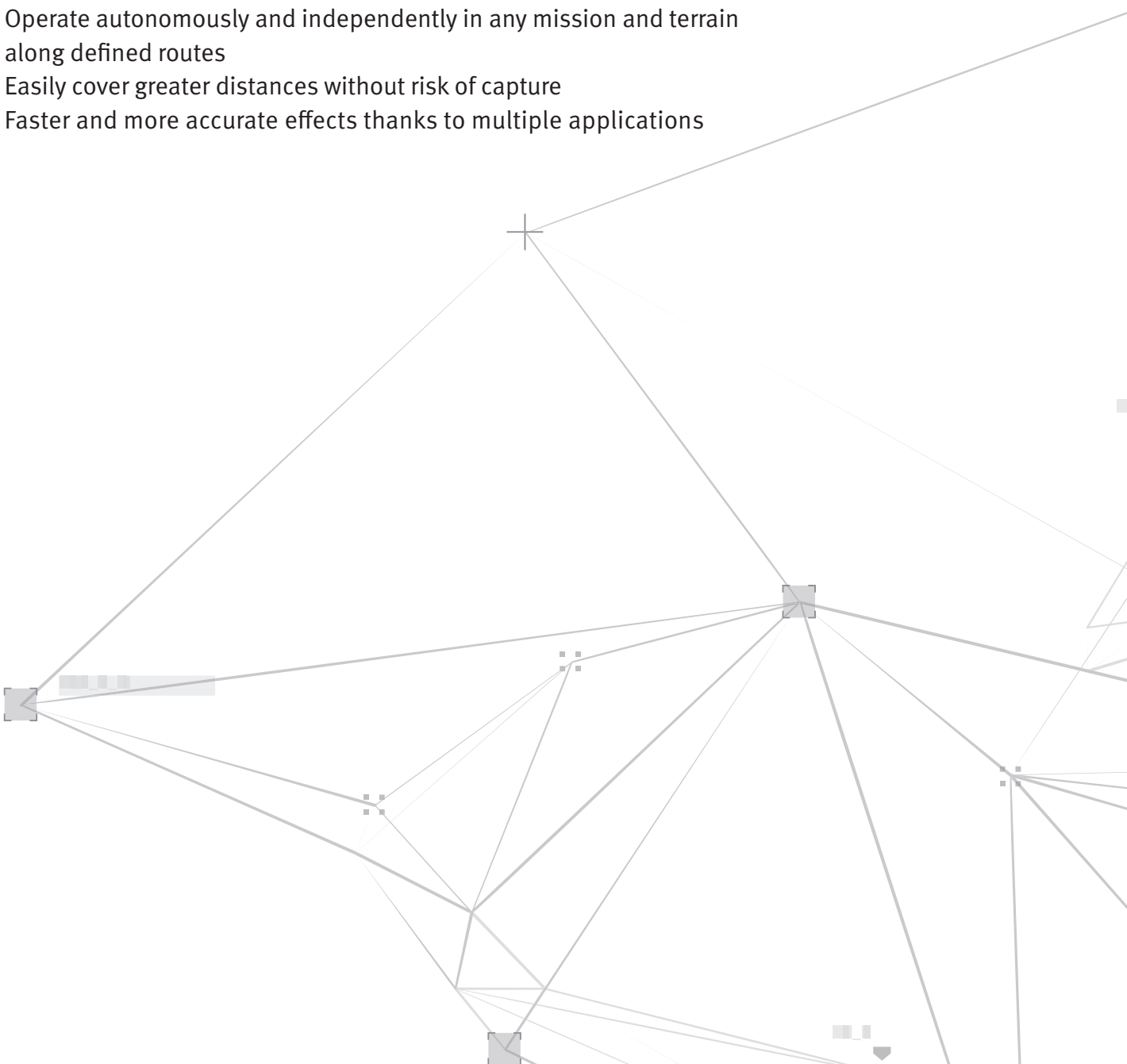

HERO – Loitering Munitions
LUNA NG and LUNA UAS
Rheinmetall Mission Master Family

// APP SWARMING/UNMANNED TEAMING

Unmanned Controlled Technology, implemented in Rheinmetall's great Mission Master and Luna NG, is extremely efficient in reconnaissance and combat, allowing users to conduct fully unmanned and flexible operations.

The Unmanned Control Service application is a middleware that provides functions such as mission control and tasking, target assignment and decision support to enhance all types of UxVs.

- Operate autonomously and independently in any mission and terrain along defined routes
- Easily cover greater distances without risk of capture
- Faster and more accurate effects thanks to multiple applications



// DIGITALIZATION NEEDS SECURITY

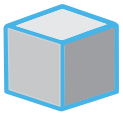
WE ARMOUR YOUR PLATFORMS FROM CYBER THREATS

SECURITY NET OF MODERN WARFARE
The digitalization of the armed forces is crucial for leading in modern warfare. However, this transformation also increases exposure to cyber threats.

Rheinmetall's IoT Operating System effectively hardens IT systems, enhancing security and mitigating vulnerabilities to ensure robust and reliable defense capabilities.

– Your systems are protected from cyber-attacks, malicious code, and improper use, ensuring compliance and enhanced security across all operations.
– Classified data (VS-NfD, EU RESTRICTED, and NATO RESTRICTED) will be encrypted.

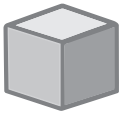
Our protocols comply with the guidelines of major security organizations like the Center for Internet Security (CIS), the Australian Cyber Security Centre (ACSC), Bundeswehr, and BSI IT Grundschutz.



// APP DIGITAL TWIN

With its Digital Twin technology, Rheinmetall offers a deeply and integrated solution for training the armed forces. Using the infrastructure and equipment in service with simulated environment, soldiers train the handling and procedures in a perfect way. Different possibilities of virtual and augmented reality features are implemented. Best training for troops by train as they fight!

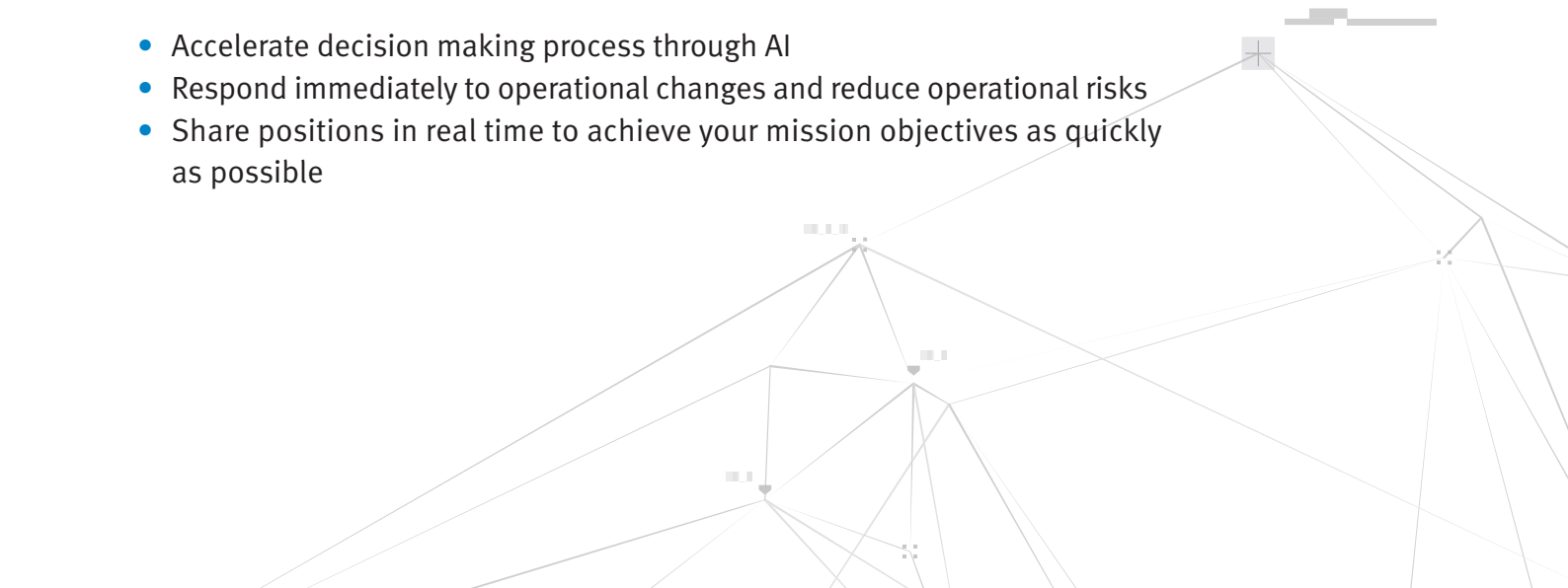
- Process & logistics optimization and automation for a better mission performance
- Benefit from experiences & standards of other forces and domains
- Staying focused: Routined and proven actions in any situation



// APP FORCE DEPLOYMENT

Artificial intelligence supports and accelerates the decision-making process for military operations. This particular technology enables military commanders to react immediately to operational changes. By analyzing geo data and the monitored situation on the battlefield, the system automatically provides positions to achieve the mission objective and to eliminate potential risks. Command selects according the strategic approach and hand over information directly to his team.

- Accelerate decision making process through AI
- Respond immediately to operational changes and reduce operational risks
- Share positions in real time to achieve your mission objectives as quickly as possible



Rheinmetall Electronics GmbH
Brüggeweg 54
28309 Bremen
Germany
www.rheinmetall.com