

**Your
Trusted**

**Nordic
Geospatial
Solutions
Partner**

- _ We enhance readiness
- _ We enable technology access
- _ We fill capability gaps

**Serving a
Stronger
Society**

MW Group



Introduction

We provide flexible, cost-effective, and innovative geospatial-based information technologies within NATO.

We are systems integrators that believe network-centric warfare is crucial for maintaining a technological edge over adversaries, ensuring interoperability among allies, and improving defense operational efficiency.

We evaluate problems and deliver solutions that solve existing and emerging defense requirements. Our flexible solutions can solve niche requirements for crises and low-intensity conflicts or be integrated into existing mission systems during peacetime and war.

Our goal is to help transform situation awareness to understanding, improve decision-making from AI-enabled analytics, and enhance joint operations by greater interoperability.

We focus on:

- Remote sensing
- Persistent surveillance
- Multi-source data integration
- Real-time collaboration platforms integrated with C2 systems
- Robust and secure communication networks





1. Geographic Information Systems Solutions

We provide Geographic Information System (GIS) solutions for enhancing NATO's Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) capabilities to improve operational effectiveness, situational understanding, and strategic decision-making.

Our goal is to minimize the duration between detection and response.

Our solutions can be integrated into existing C4ISR systems or can stand alone as turn-key solution for GIS requirements contributing to more effective and efficient defense operations.



Some of the operational benefits from our advanced GIS solutions for are

Situational Understanding

Our GIS solutions enhance situational understanding by providing a comprehensive, real-time view of the battlespace, integrating data from various sources into an easily operable format.

Efficiency

By streamlining data management, improving information accuracy, our GIS solutions enhance the efficiency of C4ISR operations reducing the time needed for analysis and decision-making.

Strategic Advantage

Our GIS solutions improve the ability to visualize and analyse complex geospatial data enabling proactive responses and better preparedness in diverse operations scenarios.

Data Fusion

Our core GIS solution for data registration management can be easily integrated with other spatial and non-spatial datasets enabling comprehensive analysis and creation of multi-layered maps.

Interoperability

We prioritise collaboration in network-centric systems to improve interoperability between different systems and organisations.



2. Remote Sensing

Real-time data and remote sensing are vital for supporting a wide range of operations in defense and security.

Acquisition

We gather multi-source data to solve intelligence requirements. We deliver high quality remote sensing and surveillance data including satellite imagery, aerial lidar and multispectral imagery collection, thermographic data, full-motion video, and more.

Our data can be delivered in a raw, untouched format or can be easily transformed into specific, spatially-referenced information layers ready for immediate analysis.



Some of the advantages using our remote sensing solutions are

Real-time Monitoring

We provide access to up-to-date imagery and sensor data to enable monitoring developments on the ground, at sea, and in the air in real time to detect threats, assess enemy movements, and more.

Persistent Surveillance

We provide contractor-owned / contractor-operated (COCO) ISR solutions that includes using long endurance unmanned aircraft systems (UAS) to improve multi-domain awareness or manned aircraft with technical survey & measurement sensors.

Environmental Monitoring

Understanding the operating environment is crucial for effective logistics, heavy equipment transport, maneuvers planning, helicopter landing zone (HLZ) selection, or even force protection assessments of forward operating locations.

Mission Coordination

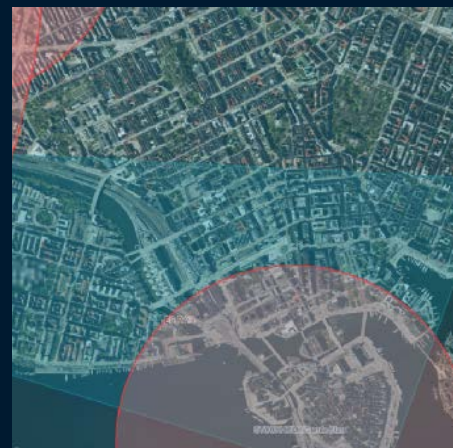
Our ability to receive and process real-time information enables adaptive responses to changing situations quickly.



3. Geospatial Intelligence

We have deep expertise in analysing lidar, multispectral & hyperspectral imagery, and thermal imaging data to support tactical and operational defense requirements such as change detection, patterns of life determination, environmental assessments, enemy dispositions (e.g, tanks, mobile surface to air missiles systems, etc), force protection, and so much more.

Our geospatial intelligence solutions are scalable, adaptable, and suitable for many defense requirements.



Some of our expertise includes

Terrain Modelling

3D terrain models help planners to better understand the effects of the environment on military operations. Our terrain models have been used for:

Line-of-sight study to determine the effectiveness of radar & communications

Site planning for the construction of a forward operating location

Environmental Analysis

Detailed assessments of environmental factors such as climate, weather, and natural hazards that can impact military operations. Our environmental analysis products can be used for:

Route optimization for heavy equipment transport

Land wetness and flood modelling to support operations planning, camp locations, military maneuvers

Force Protection

Detailed intelligence about the environment around urban areas or remote locations for operations assessments including security planning, threat and vulnerability assessments, evacuation and safe route identification, and more.

Threat and Hazard Data

Maps that highlight potential threats and hazards, such as natural disasters, conflict zones, and areas with a high likelihood of insurgent activity.

Tools that detect and analyze changes in the environment, such as new construction or altered terrain, to keep simulations current and relevant.



4. Mapping & Cartography

Mapping and cartography services are vital for geospatial intelligence capabilities in defense, environmental monitoring, urban planning, and disaster response.

We provide fast and flexible mapping solutions based on multisource data such as lidar point clouds and orthomosaics.

Any of our products can be transformed into desired projections, coordinate systems, and datums ready for immediate data registration enhancing the overall functionality, accuracy, and effectiveness of geospatial databases.

We also produce specialised maps focused on specific themes such as pre- and post-battle damage assessments, enemy dispositions, urban & population centers, environmental effects, infrastructure locations, population density, environmental effects and so much more.



Our mapping solutions include

Digital Mapping and GIS services

Including the creation, registration, and maintenance of digital maps and integration of data sources to produce interactive maps.

Topographic Mapping

Showing terrain features, elevations, and landforms are essential to ground operations, engineering, and strategic planning.

3D Terrain Modelling

Enhancing intelligence preparation of the operating environment and battlespace visualisations for better mission planning.

Mission Critical Map Deployment

For remote field operations where the ability to view, edit, and update mission-critical maps to keep the information relevant as situations, assets, and landscapes change.



5. Simulations & Wargaming

Geospatial support in defense plays a crucial role in all phases of military planning and execution , making it a cornerstone of effective training and operational readiness.

We want to enhance the realism and effectiveness of wargaming by providing accurate, detailed, and dynamic data for defense simulations.



Our support can include:

Dynamic and Interactive Geospatial Tools

Geographic Information Systems (GIS): advanced GIS platforms that allow for the integration, analysis, and visualization of geospatial data in real time

Simulation Software Integration: tools that integrate geospatial data seamlessly with simulation software, allowing for dynamic and interactive training scenarios

High-Resolution Terrain Data

Topographic Mapping: detailed topographic maps that include elevation data, landforms, and surface features that enable realistic ground simulations

3D Terrain Models: high-resolution 3D models of the terrain, which are essential for flight simulations, urban warfare training, and planning operations in complex environments

Environmental Data

Weather Effects Models: real-time and historical weather data to simulate various climatic conditions and their impact on operations

Hydrological Data: information on rivers, lakes, and other water bodies for simulations involving amphibious operations or flood scenarios

Critical Infrastructure & Mobility Data

Information on key infrastructure such as bridges, power plants, and communication networks to assess their strategic importance and vulnerability

Accessibility Analysis: Information on the accessibility of different areas, including obstacles, terrain roughness, and seasonal variations



6. Geospatial Training & Support

Geospatial training is not just maps.

We provide comprehensive geospatial and unmanned aircraft systems training solutions that prepare personnel for various defense applications.

Some of our training areas include:

Remote Sensing and Imagery Analysis

Satellite and Aerial Imagery Interpretation: analysing satellite and aerial imagery to identify terrain features, infrastructure, and potential threats

Multispectral/Hyperspectral Imaging: principles and applications of MSI/HSI for detecting materials and analysing environmental conditions

Advanced Geospatial Analytics

3D Modeling and Visualization: creating and interpreting 3D models of terrain and urban environments using geospatial data and software

Predictive Analytics: using geospatial data to predict future scenarios, such as enemy movements, environmental changes, and logistical challenges

Geospatial Data Management

Data Collection and Integration: techniques for collecting geospatial data from various sources and integrating them into GIS platforms

Data Quality and Standards: ensuring data accuracy, consistency, and adherence to NATO geospatial data standards for interoperability

Field Operations and Data Collection

Field Survey Techniques: conducting geospatial surveys in the field using GPS, Lidar, unmanned systems, and other geospatial technologies

Mobile GIS Applications: Using mobile GIS applications for data collection, analysis, and reporting in the field

Technical Support

Ongoing technical support to ensure that geospatial systems and data are up to date and functioning properly

7. Information Assurance

We know that protecting geospatial data and systems is vital to support the modern warfighter and achieve information superiority. We provide cybersecurity capabilities that protects geospatial operations and communications

We can provide cyber defense capabilities that:

Protects geospatial data and systems from cyber threats

Ensures integrity and availability of critical mapping information

Provides real-time surveillance tools to detect and respond to cyber threats

Secures communications channels from cyber attacks



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