
Geode
GLOBAL EOD EXPERTS
geode.lu

The COMPANY

Implemented in the Grand Duchy of Luxembourg, Global EOD Experts (GEODE) is a company which mainly operates in developing countries or states in crisis, offering consulting, training and technical assistance. Its mission is to assist clients in their development abroad and contribute to the success of their projects. In order to achieve these goals prospective vision, operational approach and assistance in the execution of missions are combined.

A group of international experts

GEODE relies on its network of highly qualified experts who benefit from recognized skills in all fields linked to Armed Violence Reduction (mine action, explosive remnant of war elimination, weapons and ammunition physical security and stockpile management, Improvised explosive device disposal). The international dimension of such expertise provides GEODE with the ability to intervene wherever the interests of their clients lie.

Institutional and Private Clients

GEODE targets a wide and diversified clientele (international and regional organisations, states, companies, NGOs) thanks to three key elements: a wide range of services, solutions tailored to the needs of any client and the ability to intervene in the most sensitive regions of the world. Such flexibility and a united team of passionate collaborators allow GEODE to claim a strong leadership in the international community.

A Strong Sectorial Expertise on Three Continents

The success of our work is based on a strong topical approach and prioritized areas of intervention which allow GEODE to pursue its strategy of development whilst respecting crucial values. Amongst them are professionalism, a constant focus on quality, the respect of engagements, the reinforcement of local capacities and the reestablishment of an environment that puts an emphasis on human development.

A Result-Oriented Engagement

Our corporate-driven spirit based on field experience, transparency and of course assessed results allow us to assist our clients in building a solid project which is sustainable, develops internationally and in the long term.





Destruction caused by ground fighting and airstrikes

Our ACTIVITIES

With the aim of reducing armed violence and promoting security, we develop solutions on demand and in situ of advice, training, and technical assistance for our clients. We answer the needs of states, international or regional organisations, private companies and NGOs.

Training

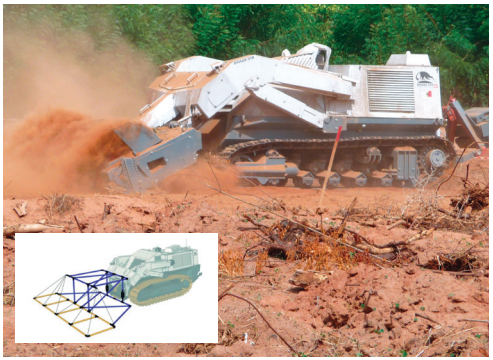
We organize our training sessions on demand, in situ or in official training centres in Africa, Asia and Europe. We discuss with our clients the appropriate agenda tailored to their needs and calendar.

Main standardized or tailored training courses, in situ or in training centres, likely to be provided by GEODE

- Prevention and management of new threats
- Explosive Ordnance Disposal (EOD)
- Counter-IED (Improvised Explosive Device)
- Underwater Survey and Clearance
- Mine Action Quality Management
- Biological and Chemical Munitions disposal (BCMD)
- Weapons and Ammunition Management (WAM)
- Train the trainers
- Refresher training courses



Ammunition Stockpile Destruction



Mechanized demining system D-250



Set up of a device used for moving a submerged load



Quality training audit and humanitarian mine clearance operations support

Technical Assistance

We assist our clients in the implementation of their projects by reinforcing their capacities:

- Provision of internationally qualified experts, experienced in work in a multicultural environment in challenging conditions during short or long-term missions
- Support in the writing of SOWs and responses to calls for tenders
- Support in project management (assisting in the definition, implementation and conduct of projects)
- Support in the process of selection and purchase of equipment oriented towards land and underwater survey and clearance
- Support in the process of selection and contractualisation of experts meeting the clients' professional criteria and adaptability

Expertise

- Execution of initial evaluation and audit missions (quality, security, safety)
- Technical and financial evaluation for demining projects
- Development and publication of technical and operational documents.
- Drafting of SOPs, national standards and project management documentation

Research and Development

- Adaptation of innovative technology to survey and clearance operations
- Research for solutions to maximize safety and effectiveness of operations



Deployment of Unmanned Aerial Vehicle (UAV) with sensors in order to define the areas contaminated by buried ammunition



Risk assessment in former contaminated fighting areas and development of clearance solutions



Stockpile securing via the destruction of dangerous munitions and obsolete weapons



Clearance of ammunition storage sites destroyed during combat

Our INTERVENTIONS

EXPERTISE ACHIEVEMENTS

Analysis of environments contaminated by explosive remnants of war, definition of prevention and clearance solutions with Project management assistance

› **Middle-East** - Needs assessment missions destined to identify the problem of explosive remnants of war (nature, density), measure its impact on civilian populations and suggest a risk reduction strategy (awareness, surveys, clearance etc.)

› **Caucasus** - Project management assistance concerning clearance of large areas contaminated by both conventional and non-conventional munitions – Technical evaluation and quality management (compliance with international standards and national regulations) in order to attain an optimal level of security for the end users

Securing and reducing weapon and conventional ammunition stockpile

› **Africa** - Reinforcement of institutional capacity in the sector of weapon and ammunition stockpile securing – Risk assessment of storage sites – Training of specialized staff in stockpile management – Training of specialists/experts in weapons and ammunition marking and tracing - Support in the destruction of obsolete and dangerous weapons and ammunition in accordance with the international standards in force

Our INTERVENTIONS

TRAINING COURSE – LAND ENVIRONMENT

Establishment of a training engineering allowing individual and pragmatic teaching on a practice-oriented basis

› **Middle-East** - Training of mine clearance experts specialized in the intervention on improvised explosive devices and explosive remnants of war

› **Eastern Europe** - Training of government representatives on the securing and management of weapon and conventional munition stockpile

› **Africa** - Development and review of training modules in the Explosive ordnance disposal (EOD) and improvised explosive devices disposal (IEDD) sectors

› **Middle-East** - Training, then Mentoring of local demining teams for the neutralization of explosive remnants of war, including improvised explosive devices (IEDs)

› **Middle-East** - Training of government demining units on neutralization of ammunition and toxic ammunition and improvised explosive devices



Practical training on neutralization of improvised explosive devices



Training on quality management for survey and clearance operations



Set up of a mini observation drone on the front platform of a RoV for CBRNE intervention



Counter-IED training



Underwater countermining



1st promotion of underwater demining specialists (Iraq 2018)



HUD Search methods training underwater

Our INTERVENTIONS

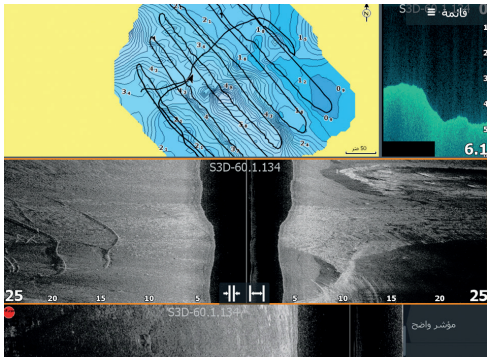
TRAINING COURSE - MARITIME ENVIRONMENT

Establishment of a training engineering in the maritime sector allowing individual and pragmatic teaching on an operational practice-oriented basis

› **Middle-East** - Reinforcement of institutional capacity aiming at extensive knowledge of the underwater environment, including inland waters and coastlines

These training activities are referenced in the “humanitarian underwater demining” (HUD) category

Provided training activities:
- Training for underwater clearance (UW-EO)
- Training for the reconnaissance and marking of submerged or floating explosive devices (EOR-Diver)
- Training for marine detection and bathymetric surveys
- Training for marine activity quality management
- Specialized medical training for humanitarian underwater demining





Implementation of the VSW2S (Very Shallow Waters Survey System) marine detection system

Our INTERVENTIONS

RESEARCH AND DEVELOPMENT

Research, technical testing and implementation of optimization solutions of safety, productivity and mobilized resources for clearance in contaminated areas

› **Drones** equipped with on board sensors allowing quick detection of buried or above-ground ammunition – The system is designed for large open areas with the ability to autonomously cover a surface between 15 to 20 hectares per day

› **Observation drones** equipped with a load release system – The system is designed for safety increase for operators by allowing the remote dismantling and destruction of located improvised explosive devices

› **CBRNE Remotely operated Vehicle** - Robot equipped with a support platform for an observation mini-UAV in order to optimize diagnosis and intervention time

› **Marine detection system** - Detection and mapping of underwater explosive devices on the seabed or buried in sediment through Unmanned Surface Vehicle (USV) equipped with sensors

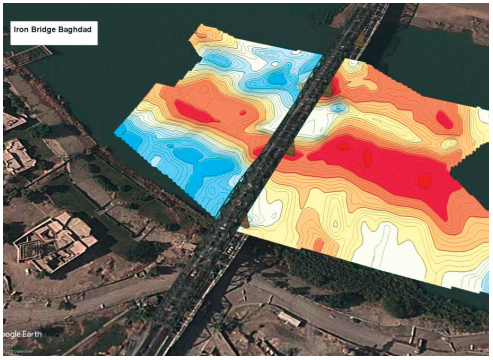
› **DIGGER SMART System** for the detection of explosives with the help of dogs. With a GPS camera and built-in speakers, the detection dogs are able to work with precision, over 100m away from their handler

› **DIGGER SCRAPER System** for the clearing of high-risk areas with a remote-controlled vehicle, up to 500m distance, and equipped with a stereoscopic camera and augmented reality glasses

› **DIGGER D-250 System** - Remote controlled mechanical demining device (12 tons) resistant to anti-tank mines explosion



Explosive detection dog equipped with SMART system developed by the DIGGER foundation



Mapping of the Tigris seabed derived from sampling carried out through internally developed detection means



Testing of the observation drone equipped with remote transport and load release devices



Testing and checks on proper operation of the large surface detection drone before take-off

Intervention on chemical ammunition



Explosive devices risk education in rural areas



Awareness on the dangers of explosive devices in urban areas



National capacity building to further eliminate toxic IEDs

Our VALUES

Quality
By respecting international standards and various socio-cultural environments, the Global EOD Experts team implements sustainable solutions for the relevant countries.

Compliance with the commitment
The client's satisfaction is a major concern for the GEODE teams. They are therefore constantly seeking the establishment of a trust relationship with their clients and partners and put an emphasis on listening to their needs.

Professionalism
Efficiency, rigor and security are the central concerns of our Global EOD Experts. These principles guarantee the best results.

Reinforcement of local capacities
Skill transfers and the contribution of technical and managerial expertise in favour of both institutional and private actors remain priorities all throughout the project. They facilitate the autonomy of these actors.

Human development
By mainly intervening in the aftermath of armed conflicts, our actions contribute to re-establish an environment that puts an emphasis on human development.



Our areas of intervention



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