



# Air Dominance

Full European technology at the service of Air Force



**ELTGROUP**  
Defence

[ELTGROUP.NET](http://ELTGROUP.NET)



ELTGROUP

**We do not  
simply anticipate  
the future**

# Who we are

In a fast-changing world we represent the touchstone of technological evolution thanks to our creative and timely strategic thinking and an innovative portfolio of solutions unique in its entirety.

# What we do

To offer the most innovative solutions to guarantee the security of people, means and information in the most complex operational scenarios: this is our sole mission.

Our clients recognise the uniqueness of our offering: to work with us means entrusting themselves to an international company of outstanding excellence which, thanks to its Italian roots, creates bespoke solution with professionals who mould the best technologies to suit their needs.

# How we do it

We invest in our people, the most important asset, to anticipate the needs of tomorrow with the ingenious of today.

ELT Group designs and develops entirely in house, and complete the supply up to the finalization of each program, including integrations and installation on board of any type of platform.

We use cutting edge technologies suitable for export. We stay close to the customer with our network of offices, granting proximity to the end users of our solutions. A full expert and skilled team is at your disposal for the satisfaction of your EW exigencies.

ELT Group is a technical partner and a preferred solution provider of the Italian Armed Forces.

# Electronic Defence

Increase the survivability and success of the entire attacking forces against air defence systems and gaining air dominance and air superiority.

## EDGE

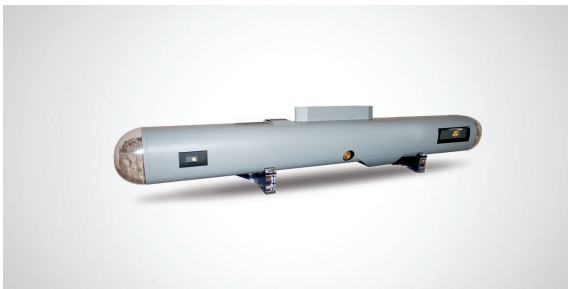
### Mission Accomplished

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EDGE is the new Mutual Protection Pod solution designed by ELT Group, mastering the highest technological challenges it deserves. It is an integrated system for detecting, identifying and automatically processing radar signals that constitute a threat.

It determines the appropriate counter-measures depending on the reaction of the system being jammed, and renders it ineffective. EDGE guarantees mission success by performing a complex and comprehensive cycle of early warning measures, which also increases knowledge of the systems to be countered.

EDGE is “digital and networking” native and the product and its technologies are designed for exportability.



#### EDGE at a glance

- EDGE allows the defeating of 2 and 3 digits SAM
- EDGE is the widest band system available on the market
- EDGE is self-contained, self-powered, self-cooled, and therefore it is “platform agnostic”
- EDGE has a real full ELINT capability, thanks to its derivation from VIRGILIUS
- EDGE can operate as a stand-alone equipment, overriding the existing platform’s SPS

# VIRGILIUS

## Back Home

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VIRGILIUS is the ideal solution when you cannot put options on your exigence to protect the platform and its crew. It is the integrated system par excellence, where integrated means that its architecture is fully software definable and then you have RWR/ESM/ECM inside one solution.

Specific threat awareness, surveillance and jamming functions are provided to the pilot's cockpit in full automated and continuous cycle. It becomes a consequence that it is suitable for a wide range of platforms and missions, with a particular focus on Combat SAR and Special Ops scenarios.

VIRGILIUS keeps the options away and guarantees high standards of protection for crews and platforms to ensure return to base.



### **VIRGILIUS at a glance**

- VIRGILIUS has a scalable architecture based on reprogrammable digital processing units
- VIRGILIUS performs optimal resource allocation through advanced scheduling approach based on artificial intelligence
- VIRGILIUS has the widest band and the highest sensitivity on the market
- VIRGILIUS is already in operation with CSAR helos

# Electro Optical Infra Red

A 360° capability against most deadly threats represented by Manpads and leveraging the combat capability of different platforms.

## ELT/572 - DIRCM

Defeat the kill chain

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Designed to provide protection for fixed and rotary-wing aircraft against current and future Manpads threats. The system engages when the missile has been already launched, operating on the “kill chain” before it is too late.

ELT/572 uses sophisticated algorithms to define the appropriate laser counter-measure combined with high-precision criteria in determining the direction of the source of the incoming missile.

The flexible system architecture can be integrated with Self Protection suites already equipped with MWS and CFD.



### DIRCM at a glance

- Fast, effective and reliable neutralization of present and future Manpads (adaptable to threat evolution)
- Prompt and effective reaction to counter multiple, even simultaneous threats (ELT patent)
- Rugged design for airborne environment
- Wide spatial coverage (well beyond the hemispherical sector) also with a single turret
- Designed to cooperate with flares against specific threats (imaging seekers)
- ELT/572 is in operation on C-130J and CSAR helos

# QCL-BASED DIRCM SYSTEM

All-in-one

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QCL-DIRCM represents the next generation in DIRCM technology, but already available and totally free of export restrictions.

It introduces Quantum Cascade Lasers to generate counter-measures, which represents a decisive step forward compared to semiconductor laser technology, along with a very compact design, now including a spherical dome.

Practically QCL-DIRCM can be installed on every type of platform, from helicopters to transport/tanker to wide body jet aircraft.



## QCL-DIRCM at a glance

- Laser unit inside the optical turret, optimization of size, weight & power
- Flexible use of QCL modules inside the units, to increase band coverage
- Complete European solution

# Self Protection

Anticipate and neutralize continuously evolving threats at the forefront of innovation for the protection of the crew and the mission success.

## ELT/162 Careful Thinking

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The Full Digital RWR is here! When early warning is not enough and you need to anticipate the mission's troubles then you come to ELT/162.

ELT/162 prevents crews from imminent threats long before they could become a "problem".

Conceived in a very compact module, the system monitors even the densest electromagnetic scenarios to protect combat aircraft, helicopters and transport aircraft.

It has the ability to designate countermeasures systems even in presence of threat-related but unknown emitters based upon their illumination characteristics.

There is no risk of mid-mission falter.



### ELT/162 at a glance

- Full Digital architecture
- Warning of high priority emitters
- Capability to operate also with raw data libraries (mission data)
- Capability to automatically analyze, classify, display and record also unknown emissions
- Capability to operate as an EW Controller that exploits/performs functions for multi-sensor coordination
- Able to designate counter-measure such as chaff and expendable active decoy
- Flight line re-programmable
- ESM functionality
- Strong Multi signal capability
- Emitter synthesis and identification powered by Artificial Intelligence
- Easy customization and installation
- Future growth capabilities



# ELT/590 SPARK

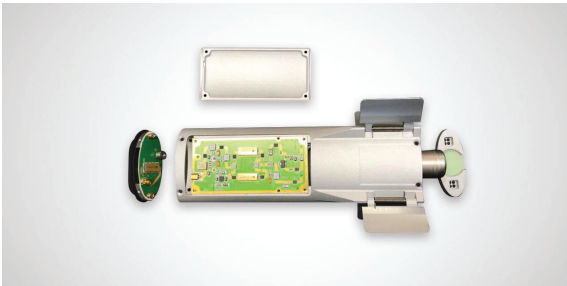
## Brilliant Protector

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ELT/590 SPARK is the ingenious solution that surpasses use of Towed Radar Decoy. As an off-board jamming device, SPARK is able to keep the most modern threats away from the platform. After its deployment, it is powered up and it delivers, by use of advanced DRFM technology and stored jamming techniques, a “fake signal” able to defeat the incoming missile.

SPARK is completed with a full list of services that includes training, operational ground support, life cycle extension management and upgrades, which make it a safe investment.

SPARK brilliantly protects your mission.



### ELT/590 at a glance

- Expendable Active Decoy optimized in different frequency bands
- Digital Radio Frequency Memory (DRFM) for modern coherent threats
- Programmable ECM Techniques (coherent, repeater and noise jamming)
- Compatible with on-board Countermeasure Dispensing Systems
- Flexible use: pre-programmed, pilot operated, stand alone
- Complies with NDAS standard architecture

# Intelligence Surveillance Reconnaissance

Deliver a unique capability for Tactical ISR through a combination of different platforms acting in combined operations.

## ELT/819

Feed the intelligence cycle

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ELT/819 is designed for advanced Signal Intelligence missions within ISTAR-EW platforms.

Its function is to collect electromagnetic emissions to determine their inherent features, including “fingerprinting” of the systems associated with them in order to feed the intelligence cycle.

Flexible deployment also allows tactical use during preparation and support for joint missions, for example on airborne Early Warning platforms.

There are no obstacles that intelligent technology cannot overcome.



### ELT/819 at a glance

- Large RF coverage from A to K band
- Dual receiver with extremely high sensitivity and high Probability Of Intercept (POI)
- Wide instantaneous IF bandwidth
- Capability to operate in dense, complex and a priori unknown electromagnetic scenarios; E.O.B. creation/ updating and presentation on digital maps
- Very accurate DOA measurements
- Automatic and computer-aided analysis both at Interpulse and Intrapulse level
- Digital recording of all the acquired data (PDMs and Intrapulse analysis data)
- Capability to be tasked and interrogated (through the on-board communication facilities) by a remote command center in a Network-Centric architecture

# Homeland Security & Force Protection

Deliver a comprehensive capability to assure a global security.

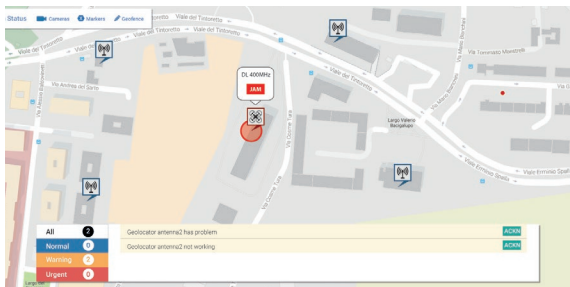
## ADRIAN

### Clear Skies

ADRIAN (Anti-Drone Interception Acquisition Neutralization) takes control of no-drone areas and assures detection, identification and appropriate reaction if becoming a potential threat.

ADRIAN is the state-of-the-art Counter-UAV solution designed to intercept and neutralize LSS (Low-Small-Slow) UAVs in multiple scenarios and environments, including urban and dense urban environments. ADRIAN can detect and resolve the latest problems in global security.

ADRIAN is the most complete solution available worldwide, integration 2D and 3D radar thanks to its system of systems architecture. ADRIAN is multidomain, fulfilling tasks ranging from Air Defence to Homeland Security.



#### ADRIAN at a glance

- Detection of very low power and Frequency Hopping Signals
- Real-time threat analysis (classification, identification, geo-location)
- Post analysis for forensic application
- UAV soft kill by counter-measure against radio control and GNSS system
- GNSS spoofing to force Drone landing in a safe area
- User-friendly HMI, with immediate feedback on alarms and threat features
- External interface to Central Operative Center
- Easy deployable and possibility to integrate on mobile vehicles

# Global Sustainment

Mastering the Electronic Warfare full capability with a global training, operational support and lifecycle logistic management in one global solution.

## Customer Support & EW Academy

Global Sustainment for Global Success

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ELT Group considers customer support as a global capability across all domains.

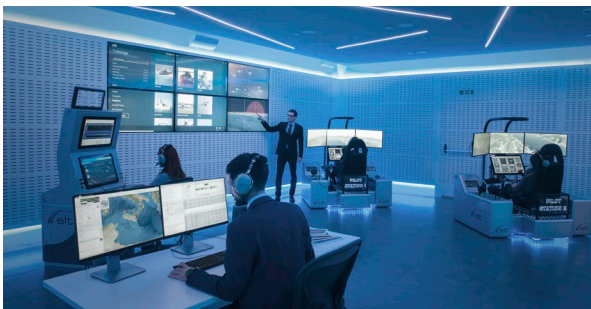
It consists of a complete, modular program to sustain the enter-into-service, training, maintenance & overhaul, mid-life upgrade and decommissioning phases of all ELT Group systems.

EW Academy is the new program developed to provide a full series of tools for customers, training and full immersion experiences related to the systems provided.

Highly specialised EW experts with heterogeneous knowledge of the various scenarios and products are available to users.

The Electronic Warfare Simulation & Training Center also offers training in an innovative EW BATTLE LAB with 3D simulation.

We deliver Global Sustainment because the success of a system lies in the combination of technologies and human skills.



# Our solutions

ELT Group is a world leader in Electronic Warfare for the aerial domain of military operation, with state-of-the-art technology portfolio that integrates several capabilities into software defined systems. This allows to perform Electronic Defence, ISR, Force Protection and extended combined aerial, terrestrial and naval operations with the same solution: full European technology at the service of Air Force.

Our solutions are designed for all types of platforms, from attack helicopters to transport planes, from special mission aircraft to unmanned aerial systems.

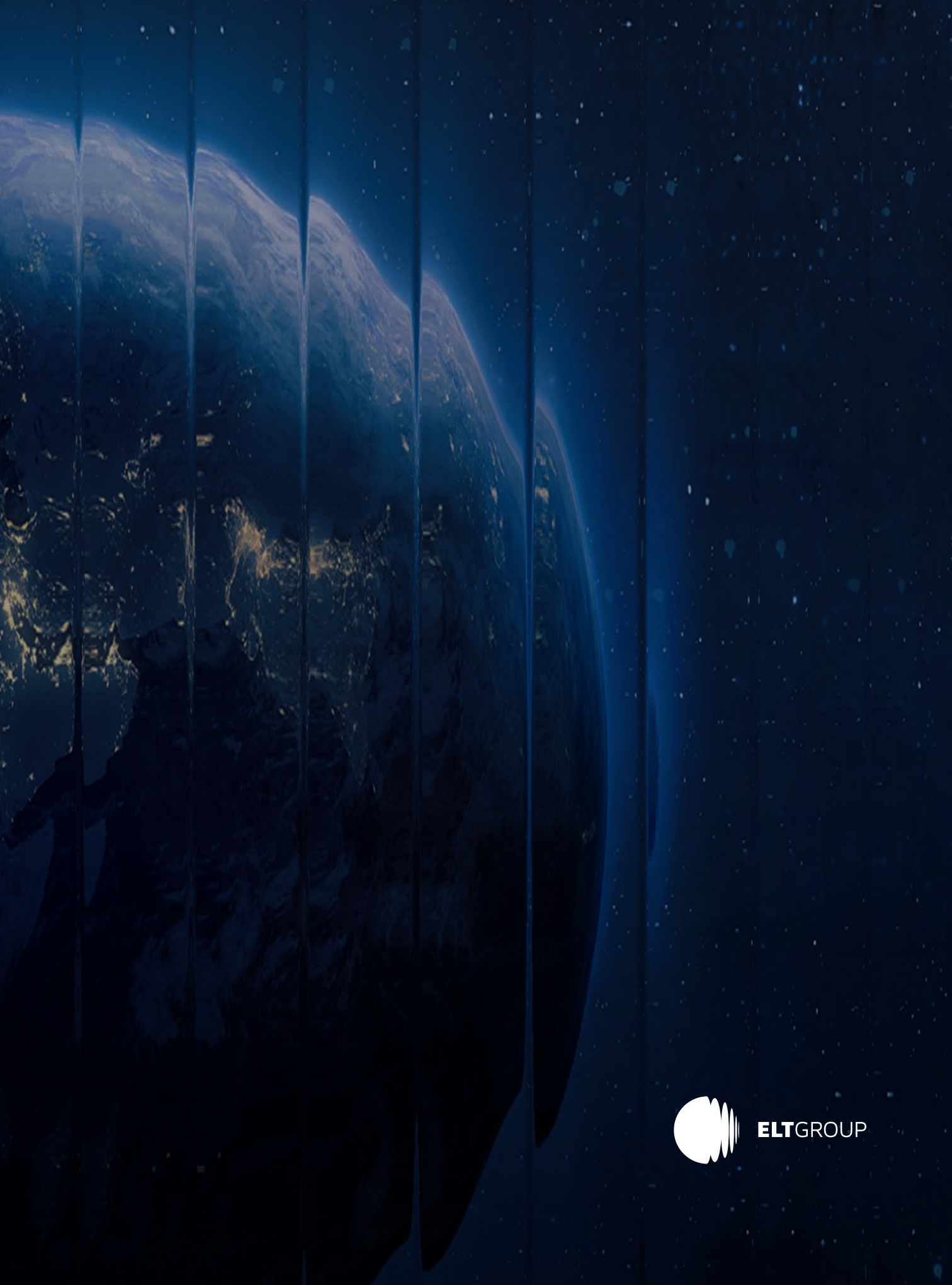
They are entirely conceived, developed and produced in-house, supported by internal R&D.

All our products and systems are designed for exportability.

## **We offer the following capabilities in Electronic Warfare:**

- Electronic Defence
- Electro Optical Infra Red
- Self Protection
- Intelligence Surveillance Reconnaissance
- Homeland Security & Force Protection
- Global Sustainment





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