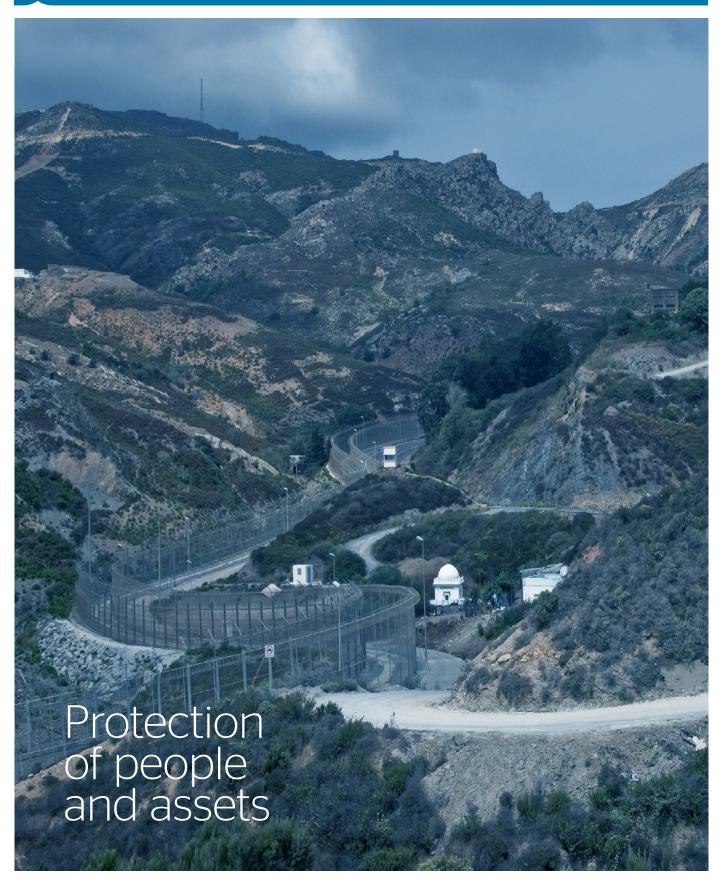# border protection



Protection
of people
and assets

**Bull**
atos technologies

# End-to-End Border Protection Solutions

## Ensuring national sovereignty

A sovereign state is responsible for the safety and security of its citizens. In particular, it protects them against organised crime, drug trafficking and illegal immigration. Passenger safety must also be protected at borders themselves, such as in airports. It is important for citizens to have confidence in the state, for services to be available and for citizens to feel they are living in a safe country.

Atos offers innovative border protection solutions to the armed forces, customs, the police and security agencies. Faced with the development and intensification of threats, Atos provides advanced and appropriate responses. In an increasingly connected world, Atos unites border control solutions with state of the art information solutions, with a centralised command centre. Information is sent in real time and in a relevant way. On detection, the recognition and identification of targets enables immediate and effective decision making. The methods used can combine fixed and mobile solutions. Maximum responsiveness allows rapid and effective intervention to be made.

Atos has a complete range of services. Its covers land, maritime and aerial borders, whether or not they are regulated.

## Regulated and unregulated borders

Atos Border Protection solutions cover both regulated borders such as airports, and unregulated borders such as sea and air.

## Fixed and mobile borders

Atos offers a broad range of solutions including fixed and mobile systems to suit the specific needs of its customers.

A mobile system can be used to replace a fixed system, in particular in case of failure.

## Command and control centre

▸ Detection of targets of interest and response coordination in real-time
▸ Communication between fixed and mobile systems units
▸ Integration with GEMMA, the Bull system of emergency management



## Complete turnkey solutions or adapted to existing ones

Atos supports its clients with the definition and implementations of their border security projects, bringing its consultancy services, its global integration capacity and its skills in developing critical technologies.

Atos provides turnkey solutions as well as customised ones, which can be adapted to existing solutions.

### Infrastructure solutions

▸ Fixed and mobile command and control centres
▸ High-precision sensors of various types: maritime and terrestrial radars, electro-optical sensors, Automatic Identification System (AIS) sensors, visible light cameras, infra-red cameras, smart video protection
▸ Vehicles equipped with sensors
▸ Information merge (multi-radar)
▸ High-quality image processing
▸ AVL (Automatic Vehicle Location for real-time monitoring of a vehicle's journey) with GIS (Geographic Information System)
▸ Data centre - Processing information with Big Data: analysis and correlation of data
▸ Interlinking of databases.

### Integration of telecommunications systems

▸ HF/UHF/VHF communications
▸ PDH/SDH optic fibre and microwave communications
▸ TETRAPOL, TETRA, LTE networks
▸ Data links (Link 11, Link 16)
▸ Satellite communications
▸ Vocal communication systems (VCS)
▸ Mobile units and tactical deployment
▸ Structured cabling and LAN network
▸ Communications management
▸ Secured communications.

### Services

▸ Integrated Logistics Support
▸ Preventive, corrective and evolutionary maintenance
▸ Training
▸ Life cycle or upgrade engineering
▸ Support for deployment
▸ Dismantling
▸ Crisis and emergency management: border control solution can be linked to GEMMA, the Bull emergency management system.

# Adapted to all environments

## Land

### Unregulated - mobile

- Extended range of mobile units
- Maritime surveillance: 4x4 (ELINT), including sensors
- Coastal surveillance: Off-road truck including cameras, sensors, a command room and an optional data centre
- Radar and optronic sensors
- Communication by radio or satellite link.

### Regulated - fixed CENTINELA

- SIAM: Automatic customs system that scans and analyses vehicle license plates, sends alerts in the event of anomaly and prevents travel if necessary
- Facial recognition and passport authentication
- Information carried by a person (e.g. driving licence) can be cross-checked with the vehicle licence database
- Fixed tower including cameras, sensors and radars.
- Regulated – fixed eGate
- Electronic ID system for customs and airports
- Processing of passport information, including biometrics, facial recognition and digital footprint
- Connected to the international information database.

## Sea

### Unregulated - mobile - at sea (VIGIA)

- Rapid visualisation and decision-making support software with capacity for the detection and automatic monitoring of various targets (AVL - Automatic Vehicle Location)
- Geographic Information System (GIS)
- Automatic Identification System (AIS)
- Signal processing
- Integration with surface drones
- Integration with GEMMA, the Bull solution for emergency management
- VTS (Vessel Traffic System) - Search and rescue.

## Air

### Unregulated - mobile

- Mobile vehicles, including cameras, sensors and a control room
- Reconnaissance aircraft
- Helicopters
- Airships for surveillance (sites, persons) and stationary observation, for cheaper border protection.

### 15+ years of experience, 2000+ km of coasts secured

- Spanish Guardia Civil: SIVE Program. Fixed Border Control Systems since 2003. Fixed, Mobile and Vessels
- Spanish Navy: Border Control on the South Border. Fixed and Vessel Systems
- FRONTEX, EU Agency: Pilot Project on Positioning System (2012)
- Dutch MoD: ABC Islands. Caribbean Coast Guard Information Exchange System.

# About Atos & Bull

Atos SE (Societas Europaea) is a leader in digital transformation with circa 100,000 employees in 72 countries and pro forma annual revenue of circa € 12 billion. Serving a global client base, the Group is the European leader in Big Data, Cybersecurity, Digital Workplace and provides Cloud services, Infrastructure & Data Management, Business & Platform solutions, as well as transactional services through Worldline, the European leader in the payment industry. With its cutting edge technologies, digital expertise and industry knowledge, the Group supports the digital transformation of its clients across different business sectors: Defense, Financial Services, Health, Manufacturing, Media, Utilities, Public sector, Retail, Telecommunications, and Transportation. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and is listed on the Euronext Paris market. Atos operates under the brands Atos, Atos Consulting, Atos Worldgrid, Bull, Canopy, Unify and Worldline.

For more information, **visit atos.net**

**Bull, the Atos technologies
for the digital transformation**

Bull is the Atos brand for its technology products and software, which are today distributed in over 50 countries worldwide. With a rich heritage of over 80 years of technological innovation, 2000 patents and a 700 strong R&D team supported by the Atos Scientific Community, it offers products and value-added software to assist clients in their digital transformation, specifically in the areas of Big Data and Cybersecurity.

Bull is the European leader in HPC and its products include bullx, the energy-efficient supercomputer; bullion, one of the most powerful x86 servers in the world developed to meet the challenges of Big Data;  Evidian, the software security solutions for identity and access management; Trustway, the hardware security module and Hoox, the ultra-secure smartphone. Bull is part of Atos.

For more information, **visit bull.com**

**Atos**

Trusted partner for your **Digital Journey**