

A total capability for global protection

The range of SELEX Sistemi Integrati Large Systems for Homeland Security is divided into six areas of application: border and territorial protection, critical infrastructures, transport infrastructures, crisis management and civil protection and management of large events. All the systems have a common architecture, which encompasses information sources, command and control, value-added services and effectors.

Border protection

Preventing illegal immigration, smuggling and illegal trafficking as well as supporting search and rescue operations; controlling national air, ground and coastline borders by closely observing and identifying suspect situations, and centralising information gathering and classification: to ensure effective protection is to rely on integrated systems.

SELEX Sistemi Integrati has developed with the Italian Coast Guard the widest coastal surveillance system, VTS (Vessel Traffic System), ensuring accurate and real time coverage of the Italian coastline for 7,500 Kilometers (4,660 miles).

The main functions and components of a border protection system are:

Sources of information

- Check-point sensors
- Area and anti-intrusion sensors (perimeter)
- Short, medium and long-range surveillance sensors

Command and control

- Multisensor tracking and data fusion
- Common operational picture
- Video-surveillance and alarm management

Value-added services

- Radio links
- TETRA
- Satellite communications
- System security
- VTS - Vessel Traffic Service

Effectors

- Ground-based effectors (sensor-equipped vehicles, wireless communications, instruments for decisional support)
- Seaborne effectors (fast sensor-equipped vessels, wireless communications, decisional support instruments)
- Helicopters/sea vessels for search and rescue



Territorial protection

This area concerns the security of daily life in a broad sense, and it involves seeking out and analysing any sign, however small, that could forewarn of a threat.

The SELEX Sistemi Integrati solution is part of a framework for security management characterised by very complex and varied scenarios requiring detailed investigation and communication.



The main functions and components of a territorial protection system are:

Sources of information

- Sensors for identifying/checking people (multibiometrics)
- Sensors for identifying/checking vehicle

Command and control

- Data correlation/data mining
- Investigation management
- GIS management

Added-value services

- Radio links
- Broadband data links
- TETRA
- WIMAX
- System security

Effectors

- Ground-based effectors (sensor-equipped, wireless communications, support and decision tools)



Via Tiburtina Km 12,400
00131 Roma - Italy
T +39 06 41501
F +39 06 4131133

www.selex-si.com

© SELEX Sistemi Integrati
All rights reserved

Published by
SELEX Sistemi Integrati
External Relations

June 2008

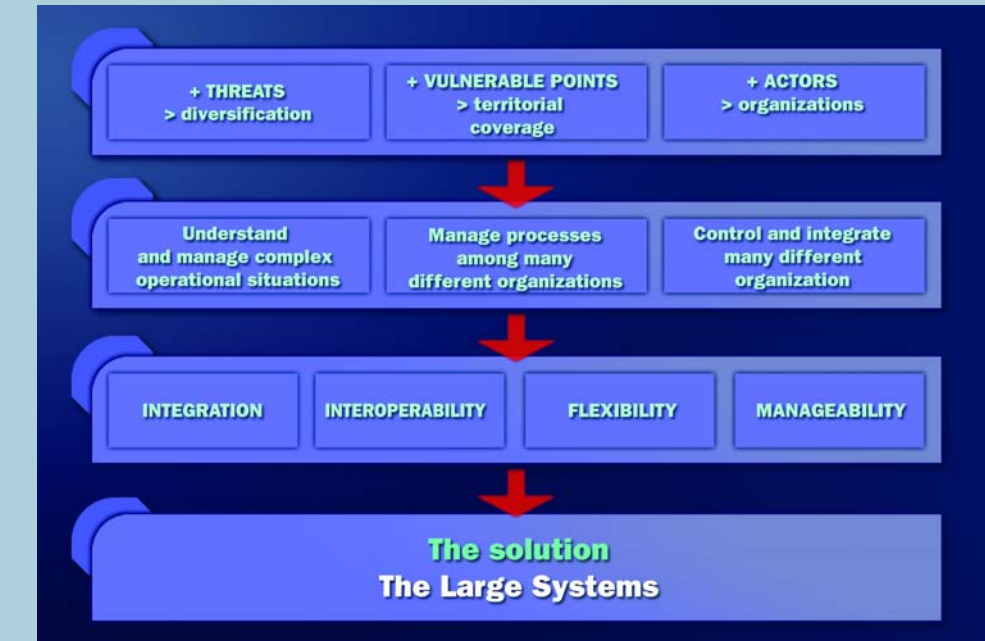
Large Systems for Homeland Security



Predictable results
for unpredictable threats



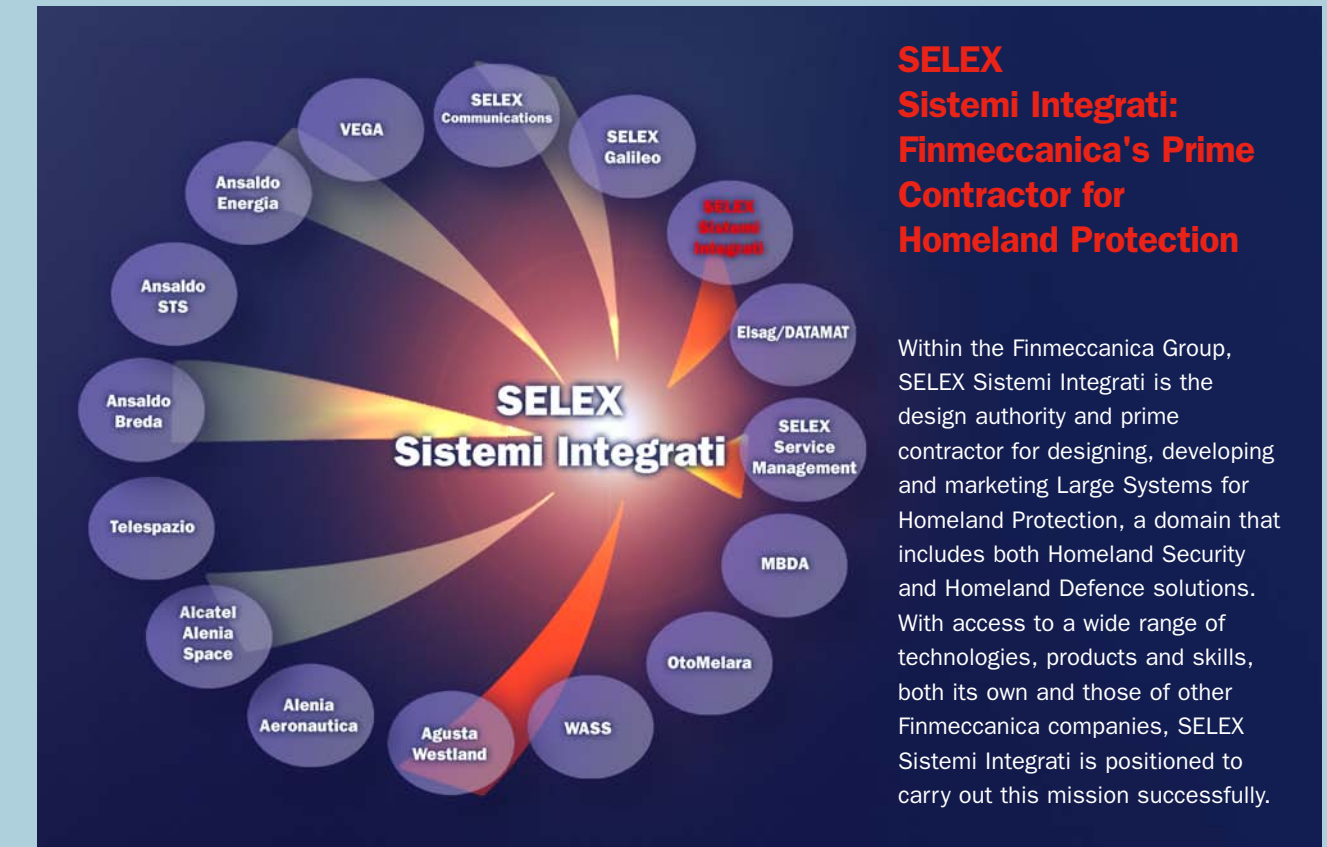
SELEX Sistemi Integrati: Homeland Security Mission



The increasing frequency and diversity of threats such as terrorism, criminal attacks, natural disasters to the territory, population and institutions of a country or a community make the issue of Homeland Security of paramount importance. Guaranteeing security and improving the resilience of communities today means having quick, reliable information to be processed, shared and integrated in a unique operational environment showing the most effective steps to be taken. The Large Systems produced by SELEX Sistemi Integrati provide the answer.

Large Systems solution

A Large System is a group of operators and systems capable of gathering and distributing information, enabling collaboration between the components, sharing the evaluation of situations, and automatically synchronising actions. A Large System has greater capacity and capability than the sum of individual parts, and its effectiveness increases as a result of coordinating and rationalising resources already present, while also introducing new enabling technologies.



SELEX Sistemi Integrati: Finmeccanica's Prime Contractor for Homeland Protection

Within the Finmeccanica Group, SELEX Sistemi Integrati is the design authority and prime contractor for designing, developing and marketing Large Systems for Homeland Protection, a domain that includes both Homeland Security and Homeland Defence solutions. With access to a wide range of technologies, products and skills, both its own and those of other Finmeccanica companies, SELEX Sistemi Integrati is positioned to carry out this mission successfully.



Critical infrastructures protection

With the globalisation and evolution of society, the very sensitive and critical infrastructures of a country increase in number and type. Some of these belong to the government and support its function such as institutional offices, while others are indispensable for everyday life, such as electricity and water. Other types of infrastructure are an integral part of the economic and social fabric of a country: for example the banking and telecommunications systems. In these cases, the heart of the Large System is a control centre interconnected with an interoperable communications system, protected and inaccessible, that can communicate with the control rooms of the single infrastructures where the local systems gather and analyse the relevant information.



The principal functions and components of a critical infrastructure protection system are:

Sources of information

- Check-point sensors
- Area and anti-intrusion sensors (perimeter)
- Short and medium-range surveillance sensors

Command and control

- Multi-sensor tracking and data fusion
- Video-surveillance and alarm management

Added-value services

- Radio links
- Ad hoc network
- TETRA
- System security

Transport infrastructure protection

The increase in terrorist threats makes protecting transport infrastructure a high priority.

SELEX Sistemi Integrati designs and develops Large Systems that provide security for journeys of any distance by any means of transport including urban railways, international flights, cruises and the intercontinental movement of high-risk material.



The principal functions and components of protection systems for infrastructure and transport are:

Sources of information

- Check-point sensors
- Area and anti-intrusion sensors (perimeter)
- Short and medium-range surveillance sensors

Command and control

- Data correlation/data mining
- Multi-sensor tracking and data fusion
- Video surveillance and alarm management

Added-value services

- GSM-R
- TETRA
- Satellite communications
- System security
- VTS - Vessel Traffic Service



Crisis management and civil protection

Dealing with emergency situations caused by humans or by natural disasters is a complex task handled by civil protection organisations. The process is divided into four phases: forecasting (prediction and monitoring), prevention (drawing up plans of action, procedures and regulations), response (emergency action) and recovery (restoring the situation to normal).

By analysing the various requirements, SELEX Sistemi Integrati structures and organises support for civil protection, by means of a situations room and a network-enabled information system allowing operators to access databases containing all the required information. Large Systems also improve interoperability between the field teams, thereby increasing knowledge of the territorial situation, both locally and nationwide.



The main functions and components of crisis management systems for civil protection are:

Sources of information

- Environmental sensors

Command and control

- Multi-sensor data fusion
- Common operational picture
- Alarm management
- Workflow management
- Shared collaboration

Value-added services

- Ad hoc network
- TETRA
- Satellite communications
- System security

Effectors

- Ground-based effectors (vehicles equipped with sensors, wireless communications, decision support tools)
- Helicopters

Large event management

Events of great national or international interest with participants from the political, economic, religious and social communities require reliable solutions that can guarantee maximum security. These systems must foresee or counterbalance any threat of terrorist or criminal organisation attacks.

The key element in defining the system is the logistic component that can vary from a very wide geographic area (e.g. the Olympic Games) to a smaller one such as a concert or a government meeting.



The main functions and components of a protection system for managing large events are:

Sources of information

- Check point systems
- Area and anti-intrusion sensors
- Short and medium-range surveillance sensors

Command and control

- EDB & media management
- Common operational picture
- Video-surveillance and alarm management
- Shared collaboration

Added-value services

- Ad hoc network
- TETRAWIMAXSatellite communications
- System security

