



# Preparatory Action for Security Research (PASR 2004)

## ISCAPS

INTEGRATED SURVEILLANCE OF CROWDED AREAS FOR PUBLIC SECURITY



The general objective of **ISCAPS** is to reduce the risks of malicious events by providing efficient, real-time, user-friendly, highly automated surveillance of crowded areas. This goal is achieved through industrial research in complementary technologies, bringing some existing technologies to maturity and demonstrating them in a real world environment.

The general scenario for **ISCAPS** is a public area in which people are moving around, and where there is an opportunity for expected threats. The project examines different types of public areas and their surveillance requirements.

These types include:

- different crowd densities – ranging from isolated individuals to fairly crowded areas (using standard definitions of groups and crowds);
- different control levels for managing the public area – gated (restricted) areas, channelled areas and open areas.

**ISCAPS** is being implemented in several steps:

1. Scenarios & Requirements: Identification & analysis of potential threat scenarios. Several of these scenarios have been selected. They serve as the basis for the requirements of the application being developed.
2. Technology development: Development of the system solution (hardware, algorithms, application) for covering the requirements developed in step 1.
3. Integration & Demonstration: Integration of the technology developed by the partners, and demonstration based on selected scenarios.
4. Road map: Based on the results of the demonstration, determination of the areas where additional research efforts are needed.
5. In parallel: Analysis of the social, legal and ethical aspects associated to the project; dissemination of the results.

## Results and achievements

The following categories of results have been defined and completed:

- A. Understanding and description of the different types of threats. Definition of the corresponding suspicious behaviours.
- B. Design of a system architecture suited to address these threats, using break through technologies.
- C. Knowledge of the difficulties to address to develop operational solutions, and of the areas where research efforts have to be increased. Definition of a roadmap.
- D. Development of a dialogue with the end-users facing these potential threats.
- E. Integration of privacy concerns in the design of solutions.
- F. Demonstration of a global multi-sensor integrated system for detection of abnormal behaviour in a crowd

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