



# U.S.-Israel Science & Technology Foundation Integrated Security Management Systems Approach Pilot Case Studies

## I. Introduction:

The U.S.- Israel Science and Technology Foundation (the "Foundation") has initiated a program to develop a security management system using a management system standards approach. The project will test and demonstrate an Integrated Security Management Systems Approach via in-house and externally funded pilot case studies. The integrated security management system will draw on elements derived from the current ISO 9001 (quality management), ISO 14001 (environmental management), BSI 18001 (occupational health and safety) standards and the new NFPA 1600 (disaster/emergency management and business continuity programs) standards. The Plan-Do-Check-Act (PDCA) model incorporating the 17 requirements in ISO 14001 is seen as a particularly relevant model in developing the integrated security management system. Working with a binational team of security and management systems experts, the USISTF has drafted a security management standard to use as a baseline in the pilot case studies.

The US-Israel Science and Technology Foundation (USISTF) is the funding and administrative arm of the US-Israel Science and Technology Commission (USISTC): a bilateral commission established by the United States Department of Commerce and the Israel Ministry of Industry and Trade in 1994 to foster scientific, technological, and economic cooperation between the peoples of the United States and Israel. The Foundation's mission is to:

- Promote the advancement of science and technology for the benefit of the general public of the United States and Israel.
- Encourage scientific exchanges between institutions in the U.S. and Israel.
- Stimulate mutually beneficial scientific and technical collaboration.
- Reduce barriers to bi-national cooperation on scientific and technical matters.
- Foster the growth of high technology industries in the U.S. and Israel.
- Promote the free flow of commerce and trade between the U.S. and Israel.

All USISTF programs have a bilateral focus; with benefit to U.S. and Israeli public and/or private sectors.

## II. Integrated Security Management Systems Program Objectives:

The goal of the project is to develop a blueprint for action for U.S. and Israeli private, public, and governmental entities. This will be accomplished by launching directly into "proof of concept" of an integrated security management system built on existing tools developed in the above-mentioned standards. A demonstration study of the combined quality/environmental/safety management-security management systems approach will be conducted using pilot case studies in Israel and in the U.S. At the conclusion of the pilots, information on the non-sensitive aspects of the pilot and collected non-confidential materials will be published as guidelines for the use of other organizations wishing to implement an integrated security management system. The case studies may also be used by the standards development bodies to propose a standard in accordance with the "Justification Study Process and Criteria" for developing a management system standard as described in ISO Guide 72:2001(E). The projects will establish broad-based guidelines for security enhancement through the application of a management systems approach.

The guiding principles in developing the integrated security management system are:

- Market Relevance
  - Meet demonstrated market needs
  - Encourage competitiveness and innovation
  - Avoid unnecessary burden
  - Avoid complexity
  - Does not imposed trade barriers
  - Used to achieve performance goals
  - Adds value to business and operations

- Compatibility and ease of use
  - Has common elements with similar management systems
  - Based on recognized model
  - Minimize sector-specific variances
  - Is flexible with regard to sectors, cultures, size
  - Enhances combined application of management systems

“Security” is defined as: “Security reduces the risk of intentional acts that disrupt and have consequences on human health, safety and the environment and includes economic and societal assets and continuity.” Risk includes response and mitigation, however, similar to the paradigms of environmental and safety management systems, risk and vulnerability awareness and prevention are at the pinnacle of priorities.

The immediate goal of this project is to provide the public and private sectors with relevant guidelines for an integrated security management system that are consistent with existing management system approaches, guidelines, and standards. As defined in the ISO Guide 72:2001(E) “Guidelines for the Justification and Development of Management Standards”; management systems are used by organizations to develop their policies and to put these into effect via objectives and targets, using:

- an organizational structure where the roles, responsibilities, authorities, etc. of people are defined,
- systematic processes and associated resources to achieve the objectives and targets,
- measurement and evaluation methodology to assess performance against the objectives and targets, with feedback of results used to plan improvements to the system, and
- a review process to ensure problems are corrected and opportunities for improvement are recognized and implemented when justified.

The immediate outcome of the pilot case studies will be a set of guidelines and tools for wide-ranging implementation of integrated security management systems across industry, government, business, and service sectors. It will test proof of concept prior to initiating the discussion of the mechanics of developing a standard. This provides the basis for either developing a set of guidelines as the end product, and/or providing the experience and data necessary to proceed with the “Justification Study Process” of developing a standard.

Key elements emphasized in the pilot “proof of concept” case studies are:

- Our goal will be a significant, documented, and measurable security and response improvement at a facility, whether it is a commercial property, post office, hospital, laboratory, refinery, chemical plant, port, railway, corporate factory, utility, transportation system, or other places where people congregate, and/or where hazardous materials may be found, where there exists critical infrastructures and where there exists high security risks.
- The integrated security management system approach will draw on elements derived from the current ISO 9001 (quality management), ISO 14001 (environmental management), BSI 18001 (occupational health and safety) standards and the new NFPA 1600 (disaster/emergency management and business continuity programs) standards.
- The Plan-Do-Check-Act (PDCA) model incorporating the 17 requirements in ISO 14001, as well as the BSI 18001 will be compatible with the integrated security management system, allowing for the use of joint audits.
- The pilot projects will incorporate the quality system way of thinking whereby system reliability probability is the product of the probabilities of the reliability of its subsystems, which in turn are the product of the reliability and the tolerance ( $6\sigma$ ) acceptance of their components.

The Foundation has established working groups to assist the pilot case studies by developing some starting point guidelines; helping to develop a timeline and milestones (implementation metrics); examining metrics for system performance and security assurance (performance metrics), and monitoring the progress and work products in the interest of evaluating the information relevant to an international standard on security management.