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## **Contributions to Education and Training for Security Management**

Globalisation, technological development and growth of ICT have changed the world. Worldwide networks of energy distribution, communication, transportation and banking will allow value creation in an extraordinary amount. Competitive economic structures ensure reasonable prices for the benefit of the citizens. But in pursuing profit, share of the market and productivity, security issues are in general of minor interest. However, recent terrorist events and natural disasters have indicated how vulnerable those structures are.

Infrastructures such as energy supply, telecommunication, transportation, banking, water supply and health service are mutual dependent on each other and have become critical for industrial operations, governmental capability to act and welfare of the society. Disturbance in one of these infrastructures will achieve follow-on effects in others and may at least cause short term severe breakdowns and severe financial losses in a long term.

It is an alarming phenomenon that knowledge about security issues such as interdependency of critical infrastructures, cascading effects, terrorist scenarios, consequences of attacks for the value of shares, the change of demand for particular products, changes of customer behaviour etc. is still being discussed and investigated by a very small amount of people. Managers, politicians and even security officers often have a tremendous lack in the understanding of interdependent security issues – and it is therefore no surprise that enterprises lack from own poor security provisions. Discussions between stakeholders are poor or even do not exist, security related public-private-partnership has little chance to be initiated and international cooperation between enterprises often ignore security issues of joint cooperative efforts though the risks of terrorist attacks may increase the need for joint operations by increased application of internet and other ICT based techniques. In addition the degree of awareness and insights into security issues differ from country to country, which might be a barrier for the development of common security concepts in industrial cooperative efforts including share of information.

Security experts expect high sophisticated terrorist attacks for the future (mixed scenarios such as “conventional” attacks and cyber operations) impacting critical infrastructures much more severe and sustainable in terms of impact than today. Society cannot longer afford to close eyes in view of increasing threats and subsequent cross border vulnerability and to let things run, hoping nothing will happen. Our society needs increasing awareness of societal vulnerability, to gain insights into future threats and scenario and build up knowledge of security issues to establish a common, EU wide security culture for minimising vulnerability of the European Society.

A major pillar towards a future European security culture will be the establishment of a comprehensive Course of Studies for Security at Universities and Academies. Up to know such a course of studies for security at European Universities and Academies does not exist.

The aim of the briefing will be to propose the development of training and vocational systems in the area of security to promote a common international level of awareness, a knowledge base to achieve a common understanding of risks and threats and knowledge based security behaviour as a basis for international cooperation between enterprises, for private-public security partnerships, common crisis management training and education and a step towards a vocational education and training for security officers.

The briefing addresses four elements:

**1. To develop a Course of Studies.** The Course of Studies will be of interdisciplinary nature. It will include lectures, seminars and exercises. Lectures will include courses in economy and business management, applied mathematics /Operations Research, IT/ICT engineering and technology, political science, sociology and selected security issues such as scenario techniques, critical infrastructures, feedback theory and cascading effects etc., specially tailored with respect to security issues. In Seminars basic knowledge will be deepened and extended in the context of particular security aspects.

Scenario based computer exercises, “free gaming” and role playing will help to bring the acquired knowledge in a comprehensive context of security and crisis management. The Course of Studies may take one year (2 Semester) plus an additional period of practical training of three months at a European enterprise.

The aim is to educate a nucleus of leaders, managers, security officers, politicians and experts in the security area, which speak a common security language, are well trained in security and emergency management and are fit for international security oriented policy and business management.

**2. To develop a standardized Security Management Training and Education Curriculum** (including methodology), to train and educate people in Security Management.

It will provide training to managers and security officers in security issues such as crisis management. It will consist of basic briefings and seminars on security issues such as Critical infrastructure protection, dependability, ICT vulnerability issues, scenario development and analysis, latest developments in security affairs and technologies. Focus of SEMANTEC will be scenario driven exercises using free gaming exercise and role gaming methodology, to challenge awareness, emergency and crisis management skills, insights into cooperative needs within a competitive society and insights into the necessity for international cooperation between private enterprises as well as with governmental and international authorities. Lectures and Seminars will be grouped around the exercises.

Students who are interested in security matters and are willing to invest additional value into their education increase their chances for better and advanced jobs in the European market. In the medium and long run this is the group is the “reservoir” for recruiting Security Officers with a good chance for positions in the upper management. In the medium an long run these people will increasingly occupy security related positions in the political administrations, in the economy and the society and will thus form the core people for a European security culture and international security relations.

Groups to be addressed may be:

- Medium and high level staff personnel in ministries and public administrations.
- Medium and high level representatives of the security forces (Police, Fire Brigades, Military, Militia and similar organisations).

- Representatives and security officers of Airport and Harbour Authorities
- Medium and high level representatives of security-sensitive industry, banks, insurances and critical infrastructure stakeholders.

The curricula will stimulate

- common understanding of security issues,
- development of a security culture and identity,
- cross border awareness of threats and future security,
- common language for security issues,
- common standards for communication, procedures and rules,
- communication between enterprises and governmental authorities.

**3.** To advertise for scenario based training and education. This is not a proclamation of worst case descriptions of the terrorist threats, to frighten people but the description of a complex but realistic threat framework taking into account interdependencies of infrastructures and related human behaviour in a short – and long term perspective.

**4.** To establish a common agreed exercise and training methodology and its scheduled application in various levels of decision making and resources management. Exercises, regularly applied cannot be overestimated for training and education. They range from scenario based table-top exercises to highly complex multi role gaming exercises up to high sophisticated field-exercises including parties such as private and public administration and all levels of decision making acting in a realistic threat environment

Though the role of Education and Training is well accepted, the number of exercises performed is still very low. The complexity of terrorist scenarios and the interdependency of critical infrastructures seems still to be underestimated by politicians, industrial managers and security forces. Not the primary effects are those who cost the bulk of money in case of an terrorist incident, but the follow-on effects are the most expensive in the long run. This insights are not yet common knowledge.

A more comprehensive approach – including academic resources –seems to be promising to educate and train people appropriate, involved in Security Management.

CESS is ready to contribute to all four elements of Security Education and Training (“SEAT”) described above.