
FORMIT

The Project:

Development of a Methodology and Research of Quantitative Data on the Economics of Security and Resilience in Critical Communications and Information Infrastructures – CIIs

Objectives

The main objectives of the SMART project are to collect qualitative information and quantitative data on Critical Communications and Information Infrastructures (CIIs), to develop a methodology in order to understand the socio-economic impacts of CIIs disruptions and to study the economics of security and resilience in CIIs.

Study's objectives are divided in two main sub-objectives:

- Identification and characterization of the economic rationale, incentives and related market drivers This will induce operators to invest and to install measures in order to protect, secure and increase the resilience of CIIs;
- Measurement of the direct and indirect economic impact of disruption of disruption or reduced performance in CIIs and assessment of general impacts on the society at large.

The study research is focused on Critical Infrastructures three main sectors:

- Internet
- Fixed Telephone
- Mobile telephone

Methodology

Several methodologies and approaches will be implemented during the various study phases according to the specific research scopes. The 2 main methodologies that will be employed in the project and will characterize the approach are:

- To assess the economic rationale for CII's security and resilience measures by collecting data through in–person interviews with members of reputable companies throughout Europe, as well as through an online questionnaire formulated to identify the functionalities of ICT in the various companies. The starting point is defining critical information infrastructure. To describing the reasons why internet, fixed telephony and mobile telephony are part of this framework and their strategic roles in enabling the social welfare. The next step is to identify the obstacles to the proper development of the infrastructures (i.e. externalities, information asymmetries, market imperfections) and the role for the stakeholders in the markets dynamic.
- To assess the impacts of CII's disruptions by processing the data received from the field with the aid of expert opinions and economic models, intending to assist the European Commission to better understand the problems of CIIs in order to formulate better incentives and policies to improve the European Union in this field. The approach implemented during the study will rely on the theoretical model implemented for the VIS (Vulnerabilities of Information Systems) project. The VIS model aims at assessing the socio-economic impacts due to unexpected critical breakdowns of ISs and at ranking sectors which belong to an economic system according to their vulnerability to information systems disruptions. The final goal is to provide decision makers with an instrument able to support policy for mitigating the effects of ISs breakdowns