



Security

FORTRESS

At a glance

Title: Foresight Tools for Responding to cascading effects in a crisis

Instrument: Capability Project

Total Cost: 4,716,268.60 €

EC Contribution: 3,400,665.70 €

Duration: 36 Months

Start Date: 01/04/2014

Consortium: 13 Partners + associated partners

Project Coordinator: Technische Universität Berlin

Project Web Site: www.fortress-project.eu

Key Words: Interdependencies, cascading effects, historical and scenario case studies, decision support in crisis, common operational picture, foresight tool, training, policy recommendations

The challenge

Given the increasing interdependencies between different infrastructural sectors and between different countries, FORTRESS aims to improve crisis management practices by identifying the diversity of cascading effects due to the multiple interrelations of systems and systems of systems, and by designing a tool that will assist in forecasting potential cascading effects. Here, crisis management refers to a process made of actions, decisions, communications which is launched and implemented when an organisation has to cope with a major event with consequences beyond itself. A common understanding of the current situation, unfolding events, structures and processes is essential in order to achieve coordinated action and to avoid misunderstandings in the moment of crisis given the diversity of organisations involved.

Project Objectives

FORTRESS will examine dynamic webs of interdependent infrastructures in crisis situations by focusing on the different types of cascading effects. The empirical results will be consolidated to create an evidence-based tool that integrates system and spatial data as well as sociological, human decision-making data.

Methodology

To analyse interdependencies and cascading effects FORTRESS will use two types of case studies, a) historical crisis case studies and b) scenario case studies of crisis management, communication and structures. Four crisis exercises will be conducted (France/Italy, Germany, the Netherlands and France) that will be comprised of different scenarios in which cross-border incidents are acting as a Trigger for infrastructure breakdown.

Expected Results

FORTRESS will develop a collaborative and accesible, modelling platform for cascading and cross-border effects as well as a demonstrator of the FORTRESS Incident Evolution Tool (FIET), that can be used as a foresight tool to assist decision-makers in understanding the potential effects of their decisions in training environments.

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