

# Preface

In the field of civil security research, many research efforts come down to technological security measures and how these measures improve security (e.g., in critical infrastructure). Information about natural disasters, hazards, and threats such as terrorism are communicated around the world in seconds due to media or social media. Although security standards are very high in Germany, the feeling of insecurity in society has never been so high. Different stakeholders (e.g., politicians, authorities, providers) have the challenge of maintaining public awareness without increasing insecurity in society. The implementation of increasing numbers and types of security measures provides more security and moves attitudes toward a positive perception of security, but the objective and subjective effects of security can be opposed. The assumptions that highly effective security measures are always accepted and raise customers' perception of security are not necessarily true in all cases. Often, the restrictions and interference caused by measures (e.g., loss of privacy, personal rights, freedom, or integrity) lead to dissatisfaction and negative attitudes.

These interferences are difficult to deal with in social-technological systems and challenging for decision-makers to handle but must be considered as part of integrated risk management. Therefore, new approaches are needed to introduce social-scientific aspects into risk management systems and decision support.

This book aims to enhance risk management systems with the subjective effects of security measures using rail-bound public transportation system as an example. It is an interdisciplinary research, combining engineering, social science, and economics to develop a contribution for end-users (public transportation providers).

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Cologne, May 1<sup>st</sup>, 2016

Securing Public Transportation Systems  
An Integrated Decision Analysis Framework for the  
Prevention of Terrorist Attacks as Example

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2017, XXII, 213 p. 69 illus., 10 illus. in color., Softcover

ISBN: 978-3-658-15305-2