TERRORISM AND COUNTERTERRORISM

The theme of Terrorism and Counterterrorism deals with terrorism-related and other politically motivated threats and attacks. It aims to contribute to the societal and academic debate on these phenomena. The research combines policy-oriented research that contributes to evidence-based policies and a more nuanced debate on terrorism, with 'fundamental' research that looks into the causes of terrorism and draws historical comparisons.

Theme leader: *Professor Marieke Liem, Leiden University*

MICROBIAL SAFETY AND SECURITY

Bacteria in healthcare are becoming increasingly resistant and therefore more difficult to treat. As transmission within healthcare institutions is common, we focus our attention on this. To understand this transmission, we need knowledge from bacterial behaviour, technology and hardware in hospitals, organisational procedures and human behaviour as well. In addition, where and when and why does the dissemination occur and what are the stimulating and impeding factors for this; and more importantly, which of these factors are avoidable? This requires multidisciplinary research and education.

Theme leader: *Professor Margreet Vos, Erasmus University Rotterdam*

WORK WITH US

If you are interested in the topics we work on, or would like to discuss possibilities of collaboration, please don't hesitate to contact us.

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Centre for Safety and Security

In the Leiden-Delft-Erasmus Centre for Safety and Security, scientists from Leiden University, Delft University of Technology and Erasmus University Rotterdam collaborate in the field of Safety and Security.

SAFE AND SECURE SOCIETIES

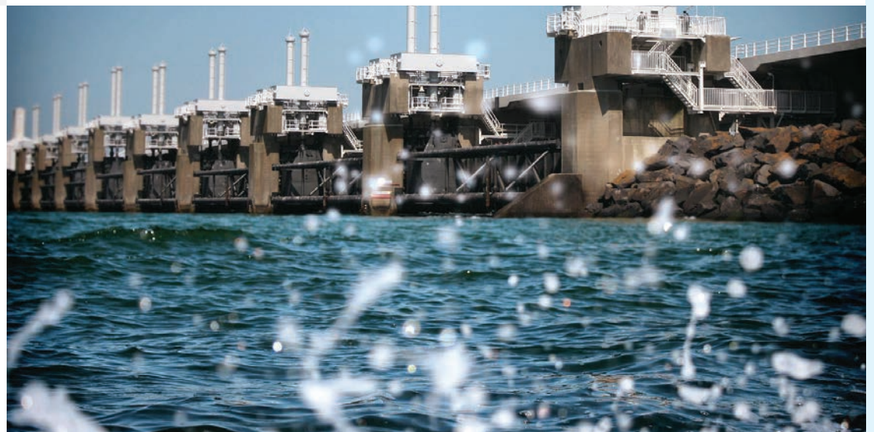
With news media filled with reports on terrorist threats and attacks, cyber risks and natural disasters, *Safety and Security* are on top of today's policy and research agendas. How safe are we, how can safety and security be enhanced, and what are we willing to pay in return in terms of money and privacy?

COMPLEXITY

The field of Safety and Security is all-encompassing and extremely complex. Therefore, multidisciplinary scientific research is crucial, with contributions from such fields as technology, legal studies, psychology, economics, political studies and ethics. Leiden University, Delft University of Technology and Erasmus University Rotterdam are highly complementary and harbor all fields of expertise needed to tackle the complexity of *Safety and Security*. In the Centre for Safety and Security, they have joined forces to be able to guarantee a truly multidisciplinary and interdisciplinary approach.

"To take a revolutionary step forward in the area of Safety and Security, a fundamental change in mentality is required. Judicious transparency and radical sharing of safety and security information will be crucial to bring about real progress. The methods and technologies needed for this new societal mind set are still in its infancy and will have to be developed by multidisciplinary teams of researchers and practitioners."

Professor Genserik Reniers, Scientific Director of the Centre for Safety and Security



Research Themes

CYBER SECURITY

Cyberspace is the complex socio-technical environment that is often called the '5th domain', next to land, water, air and space. As the news brings announcements of new cyber incidents on an almost daily basis, sometimes with high impact, there is an urgent need to better secure cyberspace. Both technical and human factors are of importance to do so, which is the rationale underlying this theme.

Theme leader: *Professor Bibi van den Berg, Leiden University*

INDUSTRIAL SAFETY AND SECURITY

Chemical industrial parks store or process high quantities of hazardous substances. The involvement of these areas in crisis scenarios, can escalate the impact of cascading events, deriving from natural hazards, terrorist attacks, or internal faults. The scope of conventional approaches to the safety and security of complex systems needs to be widened to include the specific scenarios involving chemical industrial areas. In the theme of Industrial Safety and Security, researchers from diverse fields collaborate to develop new risk assessment models and decision paths.

Theme leader: *Professor Genserik Reniers, Delft University of Technology*

NATURE-RELATED SAFETY AND SECURITY

The domain of natural hazards involves the understanding of the mechanisms behind these hazards, in order to model the complete source-pathway-receptor chain over space and time. It will be impossible to prevent natural hazards, but we can try to reduce the impact of natural hazards as much as possible, by building strong flood defences, faster urban discharge of excessive rain water, etc. The question is now, how we can stop the increase of economic losses and loss of human life due to these natural hazards? Technical solutions alone are clearly not sufficient. The domain needs multi-faceted contributions from socio-technical experts from TU Delft, University Leiden and Erasmus University Rotterdam

Theme leader: *Professor Pieter van Gelder, Delft University of Technology*