



University of Stuttgart



Programme

DFG Round Table Discussion

***“Integrated Research for Enhancing the Resilience
of Critical Infrastructures through Strategic
Assessments and Innovative Planning Approaches”***

26th and 27th of October 2015, IREUS, Stuttgart

University of Stuttgart, 26th and 27th of October 2015



Contact:

Prof. Dr.-Ing. habil. Jörn BIRKMANN

Anna GORIS

Institute of Spatial and Regional Planning

University of Stuttgart

Pfaffenwaldring 7

70569 Stuttgart

Germany

Tel: +49 711 685 66332

Tel: +49 711 685 66329

E-Mail: joern.birkmann@ireus.uni-stuttgart.de

anna.goris@ireus.uni-stuttgart.de

Monday, 26 October 2015

10:00 University of Stuttgart, Pfaffenwaldring 7, Room No. 2.157, Stuttgart-Vaihingen

I – Introduction – Goals, Projections

10:00 **Welcome and Introduction**
10:30 *Prof. Dr.-Ing. Jörn Birkmann / University of Stuttgart*

10:30 **Introduction of all Participants**
11:00

Incentive Presentations: Terms, Definitions, Concepts, Perspectives

11:00 **Critical Infrastructure and Robustness of Building Structures**
11:15 *Prof. Dr. Ulrike Kuhlmann/ Dean Faculty II; University of Stuttgart*

11:15 **Recent Impacts of Disasters due to Natural Hazards on Critical Infrastructures (CI)**
11:30 *Prof. Dr. Friedemann Wenzel / Karlsruhe Institute of Technology*

11:30 **CI for Resilience: Contrasting its Role in Northern and Southern Contexts**
11:45 *Dr. Matthias Garschagen / United Nations University*

11:45 **The Change of Concepts: From Protection to Resilience of Critical Infrastructures**
12:00 *Prof. Dr. Alexander Fekete / Cologne University of Applied Sciences*

12:00 **National and European Security Researchprogrammes – Status and Perspectives**
12:10 *Dr. Steffen Muhle /VDI, Düsseldorf*

12:10 **Discussion and Identification of Questions**
12:45 *Moderation: Prof. Dr. Annegret Thieken / University of Potsdam*

12:45 **Lunch Break**
13:30

Incentive Presentations

13:30 **Critical Infrastructure from a Spatial and Urban Planning Point of View**
13:45 *Prof. Dr. Dirk Vallée / Dean, RWTH Aachen University*

13:45 **Critical Infrastructures from a Traffic Planning and Management Point of View**
14:00 *Prof. Dr. Markus Friedrich / University of Stuttgart*

14:00 **Critical Infrastructures and Resilience Concepts in the US**
14:15 *Prof. Dr. Susan Cutter / University of South Carolina, USA*

14:15 **Discussion and Identification of Small Groups**
15:00 *Moderation: Prof. Dr. Friedemann Wenzel / Karlsruhe Institute of Technology*

15:00 - 15:20 Tea Break

II – Discussion in Small Groups

15:20 **Small Groups for following subtopics:**
17:00

1. **Understanding Terms and Concepts of Different Disciplines**
(Moderation: Prof. Dr. Jakob Rhyner and Prof. Dr. Ulrike Kuhlmann)
2. **Understanding the Interactions of Climate Change and Extreme Events as well as Planning and Management of Critical Infrastructures**
(Moderation: Prof. Dr. Silke Wieprecht and Dr. Torsten Welle)

17:00 **Presentation of the Results of the Group Discussions:**
18:00 *Moderation: Prof. Dr. Stefan Siedentop / ILS Dortmund*

19:00 **Joint Dinner at the Commundo Hotel**

Tuesday, 27 October 2015

III – Chosen Concepts and Questions regarding the Resilience of Critical Infrastructures

08:30 **Wrap-Up – Essential Findings from Monday’s Discussion**
08:45 *Ms. Susanne Krings / Federal Office for Civil Protection and Disaster Assistance*

Incentive Presentations

08:45 **Critical Infrastructures and Regional Planning – Developments and Drawbacks when promoting Resilience – Case Study Region Cologne**
09:00 *Prof. Dr. Stefan Greiving / Technical University Dortmund*

09:00 **The Change of Natural Hazards and the Evaluation of Respective Damage to Critical Infrastructures**
09:15 *Prof. Dr. Annegret Thieken / University of Potsdam*

09:15 **Bottom up perspective on infrastructure recovery in coastal New Jersey after Hurricane Sandy**
09:30 *Prof. Dr. James K. Mitchell / Rutgers University, USA*

09:30 **Discussion**
10:00 *Moderation: Prof. Dr. Susan Cutter / University of South Carolina, USA*

10:00 **Holistic Approach to Resilience for Large Scale Urban Infrastructures**
10:15 *Prof. Dr. Frank Fiedrich / University of Wuppertal*

10:15 **Extreme Weather Events and Critical Infrastructure Resilience**
10:30 *PD Dr. Michael Kunz / Karlsruhe Institute of Technology*

10:30 **Discussion**
10:45 *Moderation: Prof. Dr. Susan Cutter / University of South Carolina, USA*

Discussion in Small Groups

10:30 **3. Relation between the Resilience of Critical Infrastructure and the Role of Spatial Planning as well as Sectoral Planning (traffic, water supply and distribution, construction)**
12:30 *(Moderation: Prof. Dr. Markus Friedrich and Prof. Dr. Stefan Greiving)*
4. Risk Evaluation and Management as well as Governance of KRITIS Risks – including new Methods for the Assessment of Direct and Indirect Losses
(Moderation: Dr. Jens Libbe and Prof. Dr. Astrid Ley)

12:30 – 13:30 **Lunch Break**

IV – Recommendation for further cooperation as well as follow-up action

13:30 **Presentation of the Results achieved in the Small Group Discussions**
16:00 **Discussion of Research Gaps and further Development of Research Questions**
Proposals (Book project / anthology as well as Research Proposal in 2016)
Summary of the Discussion
Moderation: Prof. Dr. Jörn Birkmann and Prof. Dr. Annegret Thieken

16:00 *End of the Round Table Discussions; homeward journey*

Objectives of the DFG Round Table Discussion in Stuttgart KRITIS and Strategic Planning

Objectives /DRAFT

Objective: Identification of Research Interests as well as setting up of a research community for the subject

Identification of blind spots within the framework of the topic

Define concrete possibilities and steps for further cooperation

Array of Questions / 1:

Understanding the interaction of climate change and extreme events as well as planning and management of Critical Infrastructures

- How to improve the understanding of the interactions, connections and dependencies of extreme events, hazards and safety questions as well as risks in the context of Critical Infrastructures, i.e. population groups and their resp. dependency of KRITIS?
- Which trends can be observed in the development of Critical Infrastructures (higher interdependencies versus decentralization) and in terms of the impacts of extreme events on CI?
- Which Critical Infrastructures are of importance to spatial and environmental planning as well as construction?
- Which kinds of extreme events are already being considered in current R & D projects? Which standard is to be considered, what are extreme events which are not yet being considered?

Array of Questions / 2:

Understanding terms and concepts of different events

- What exactly is the meaning of the terms robustness and resilience of Critical Infrastructures when being used in the scientific context of construction, environmental and spatial planning?
- Which criteria are being used for the resilience or robustness of Critical Infrastructures?
- Why is a Critical Infrastructure critical – definition of the term ‘criticality’
- Which elements and processes define a Critical Infrastructure?
- What are strategic protection objectives?

Array of Questions / 3:

Relation between the resilience of Critical Infrastructures and the relevance of spatial planning, i.e. sectoral planning

- Which are the interdependencies between planning, e.g. spatial planning, infrastructure planning and Critical Infrastructures?
- Do spatial or sectoral planning approaches actually influence Critical Infrastructures and their resp. criticalities?
- Which planning scenarios and timeframes are relevant?

Array of Questions / 4:

Evaluation of risks as well as management and governance of KRITIS (normative dimension)

- Who should promote strategic planning within the field of Critical Infrastructures?
- Which are the interdependencies between general planning (e.g. spatial planning), infrastructure planning and Critical Infrastructures?

- Which Critical Infrastructures are particularly relevant to spatial, environmental and construction planning?
- In which areas does spatial planning influence Critical Infrastructures and their criticality?
- How and to what extent do private property developers and operators of Critical Infrastructures take the criticality of Critical Infrastructures into consideration?
- Who should/could promote strategic planning in the field of Critical Infrastructure?
- How can the relation between worthiness of protection and vulnerability be described and defined – which protection standards are actually in place?
- Who is authorized to set those standards?
- How to develop different protection standards for Critical Infrastructures and how to apply these in planning processes?
- Which methodological innovations are needed in order to better assess and capture the direct and indirect losses and effects of the failure of critical infrastructures in cities for people and services?

Stuttgart, 24 September 2015 / JB