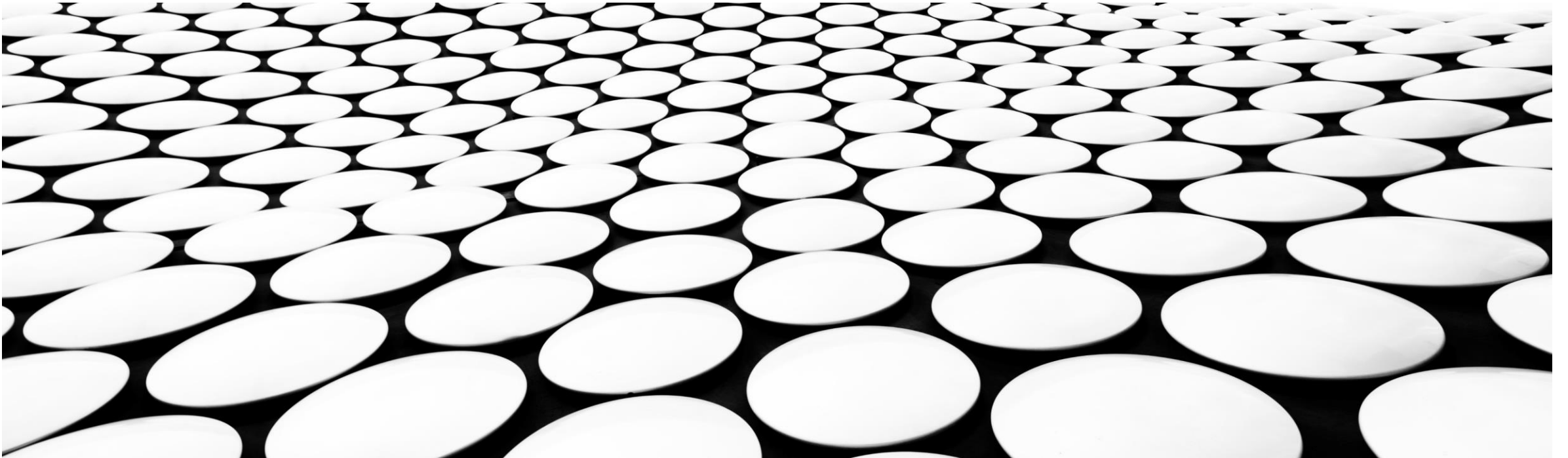

Safety and Disaster Management in Germany

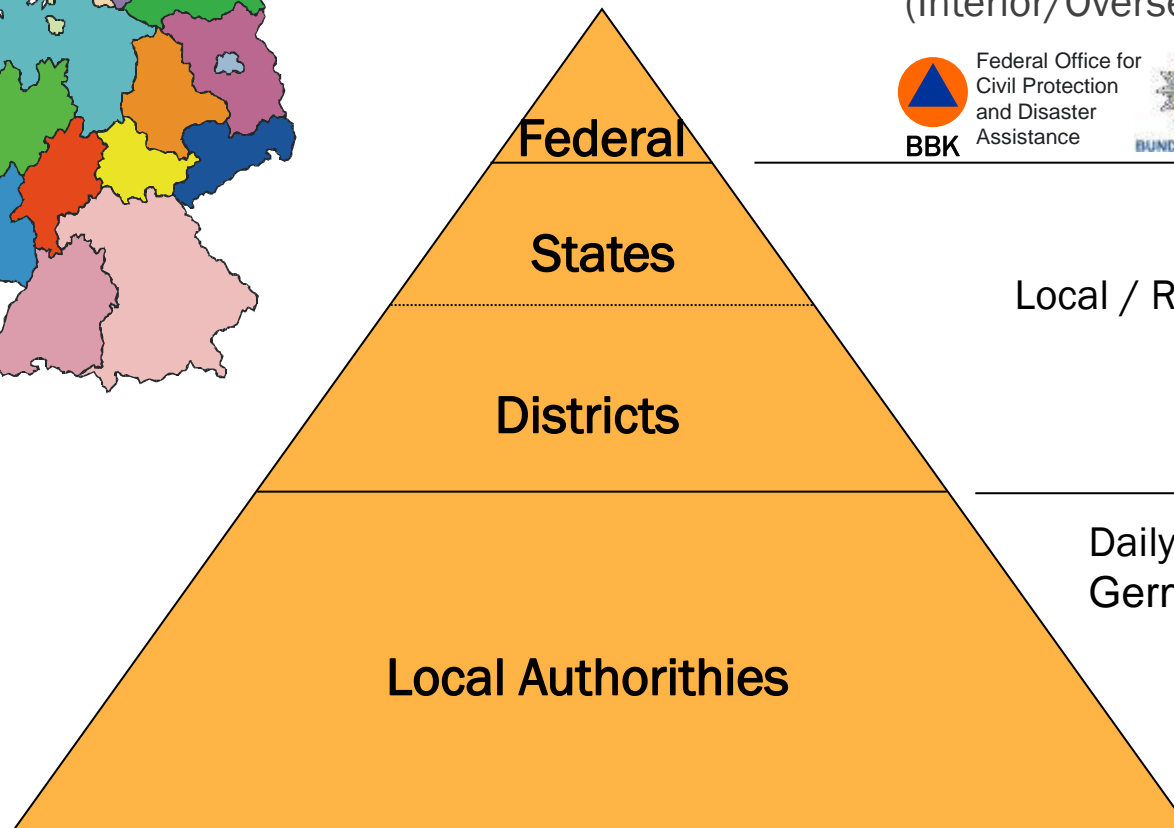
Victory comes from finding opportunities in problems

(Sun Tsu, Chinese General, ca. 500 BC)



Safety and Disaster Management in Germany

Emergency Rescue Operations



- National Disasters, Military Conflicts
- Tasks of the Federation with regard to Civil Defense (Interior/Overseas)



Federal Office for
Civil Protection
and Disaster
Assistance



Technisches
Hilfswerk



Local / Regional Major Incidents and
Disasters

Daily Incidents / Fire and Rescue Services,
German Federal Agency for Technical Relief



Deutsches
Rotes
Kreuz

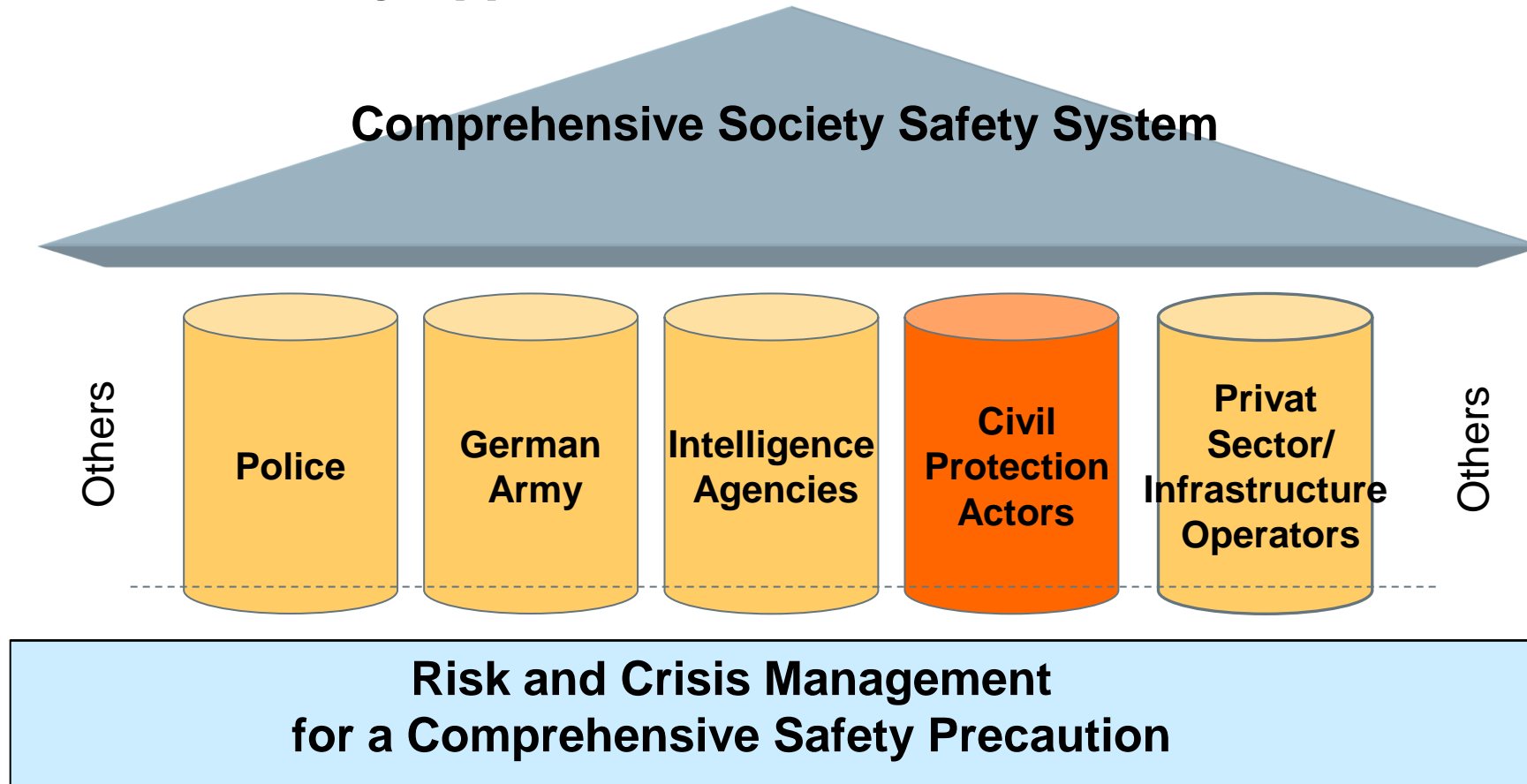
DIE
JOHANNITER



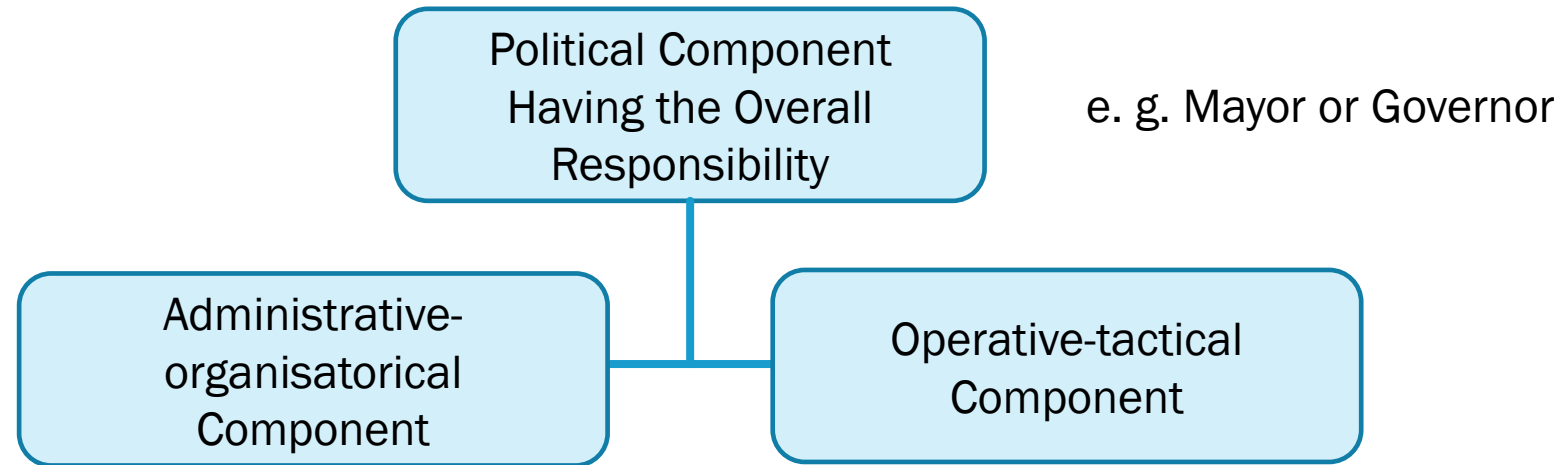
Bundesamt
für Bevölkerungsschutz
und Katastrophenhilfe

Safety and Disaster Management in Germany

Comprehensive Society Approach



Levels of Command of large scale Disasters in Germany



This component is mainly an administrative council according to the legal regulation of the federal state that integrates all administrative institutions, organisations and departments needed for mastering of the disaster and the restoration of normal conditions. Examples are decisions to evacuate residential areas, care for displaced or otherwise concerned people, and initiating measures for others at their behalf per administrative regulations, sanitation and health care, and the protection of property.

e. g. the command posts on the different levels of command. The commander of this component has to be assigned in accordance with the legal regulations of the federal state.



Operational Units in Civil Defense and Disaster Management



Germany - 81 million residents



- 22,167 Volunteer Fire Brigades (almost one in each community)
 - 110 Professional Fire Brigades
 - 760 Plant Fire Brigades
- Totally 1,348 Million Fire Fighters

For quick help

Technisches Hilfswerk 

79,927 Members of German Federal Agency for Technical Relief
Organized in eight national associations



For long-term help

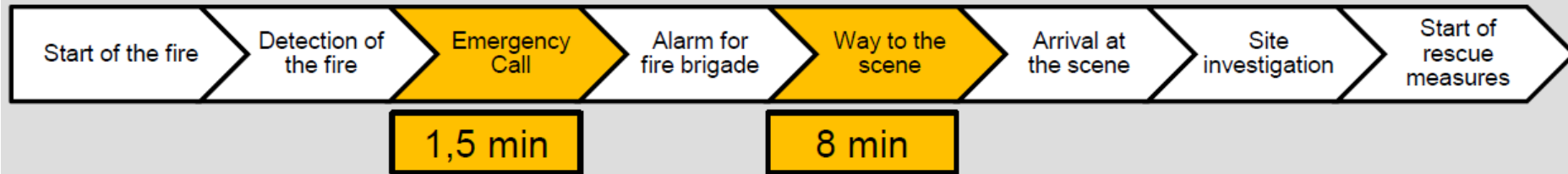


The Goal of Rescue Operations by Fire Brigades



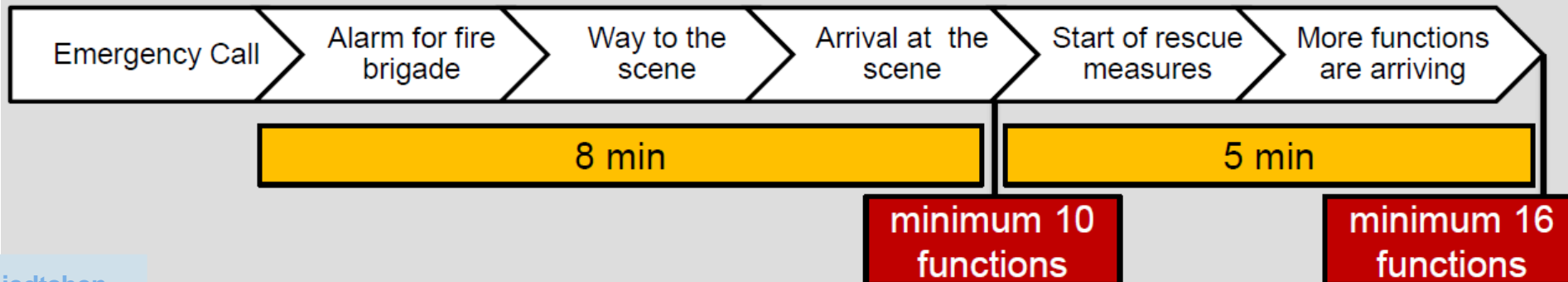
Legal rescue time

- the most critical part is to rescue people's lives
- hazard of toxic gases and high temperature
- important to safe time

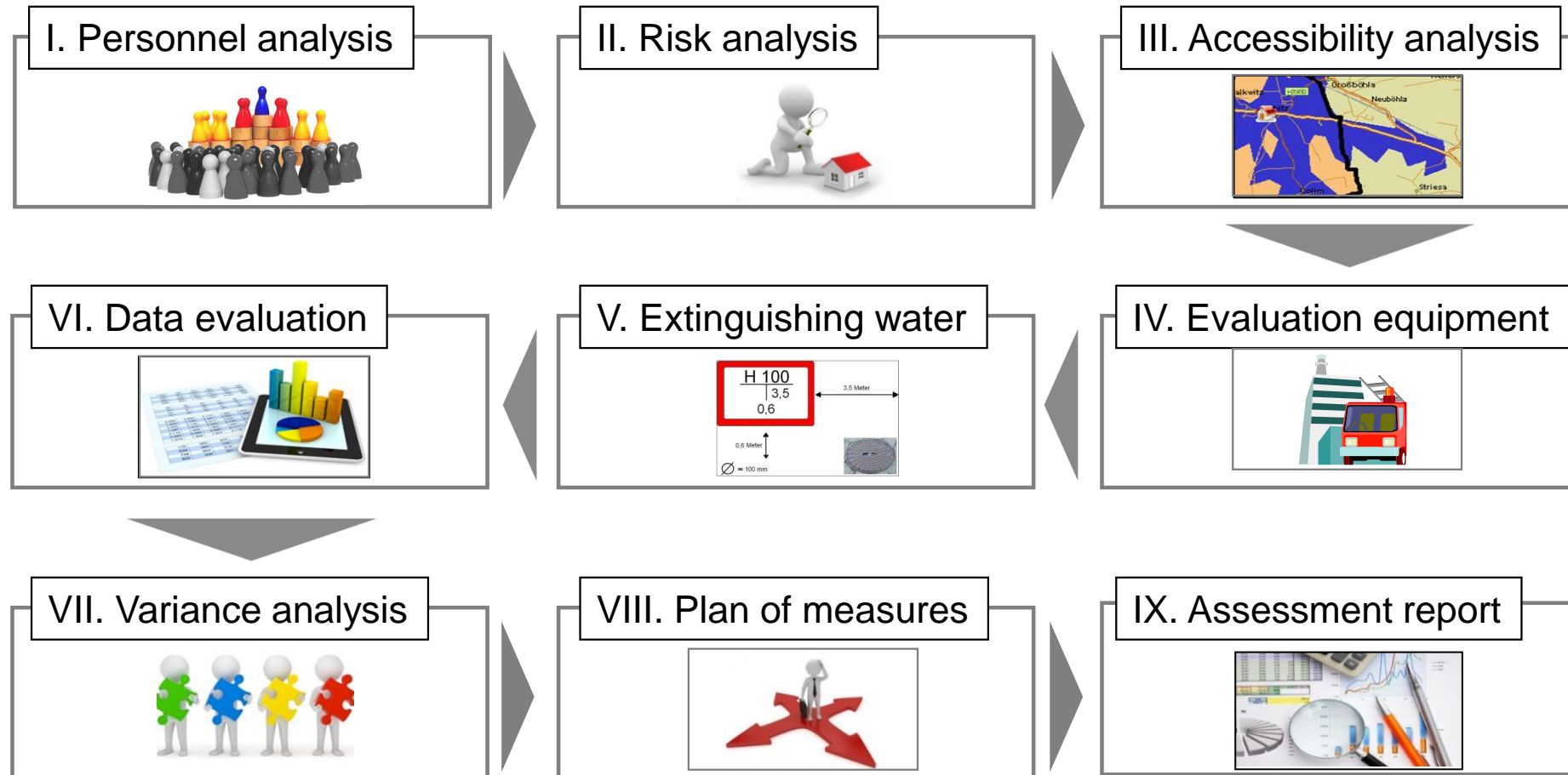


Personnel requirements

- firefighting needs a lot of personal
- for the critical apartment fire minimum **16 firefighters** (functions) are required within **13 minutes**



Emergency Planning in Germany - Empirical Mathematical Model



Personal Experience in the Flood of 2002

Incident
Commander

Personell/
Administration

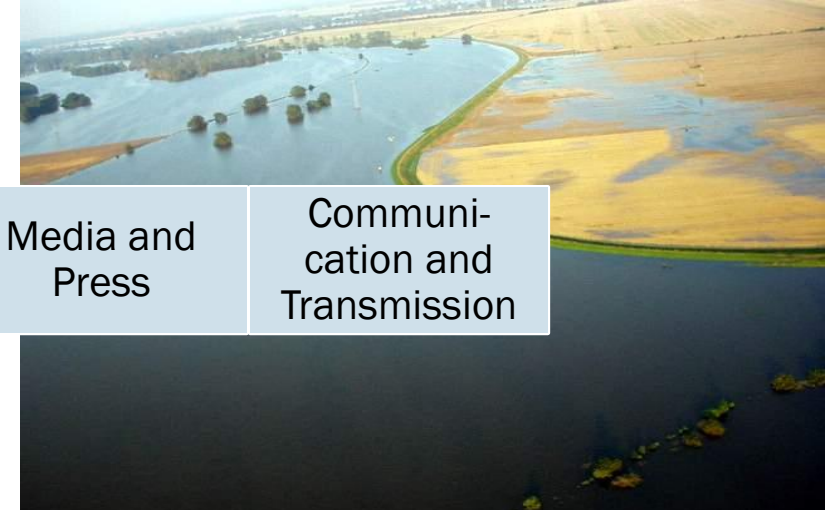
Information
gathering/
Assessment

Operation

Logistics

Media and
Press

Communi-
cation and
Transmission



Personal Experience in the Flood of 2002



Incident
Commander

Federal Army

Fire Brigades

Federal Agency
for Technical
Relief

Volunteers

Devastating Flood, Germany, July 14th, 2021

141 Fatalities

766 Injured

Damages in the amount of more than 29.2 billion €



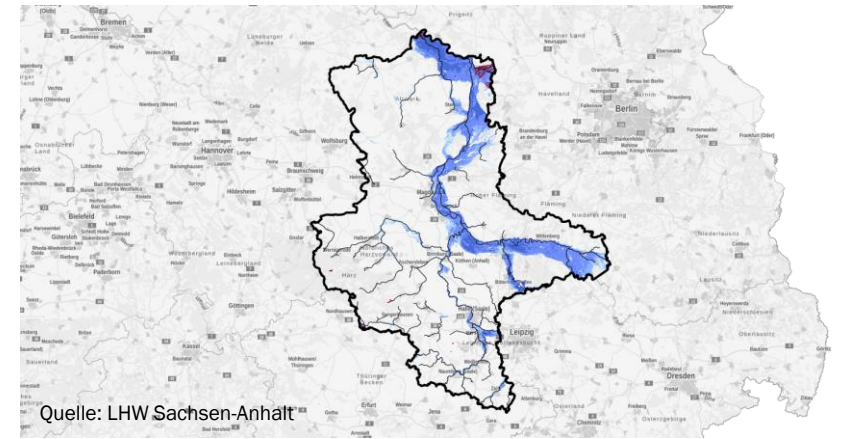
Quelle: Wikipedia



Quelle: SWR>>Aktuell, 10.09.21

First Recommendations for an Optimization of Disaster Management

- In all counties and independent cities install and train regularly the Administrativ-organisatorical Component.
- Train the Operativ-tactical Component for large scale disasters.
- Create Flood Risk Maps.
- Create evacuation plans (with what and where).
- Install, improve the early warning systems.
- Improve communication tools. Create redundancies.
- Adapt vehicle and equipment technology to large scale disasters.
- Plan in advance for involvement of spontaneous helpers and private resources.



Thank You for Your Attention

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