



Public Warning Information – Warning – Alerting Basic's

Prof. Dr.-Ing. Peer Rechenbach



Who is who?



- Prof. Dr. Peer Rechenbach
Civil Engineer of Power Electricity, Chief Fire Officer(retired)
- Senior Expert of Disaster Response Management, Civil Protection, Leadership Organization and CBRN-Measurement based on international experiences. Former Head of the State Department of Civil Protection, Fire and Emergency Medical Services, Civil-Military Coordination and Disaster Response Management of Hamburg (retired). Expert in the German Delegation of ISO/TC 292 and CEN/TC 391.
- Former Member of the United Nation Disaster Assessment and Coordination Team (UNDAC) and High Level Coordinator of the Disaster Response Mechanism of the European Union.
- Part Time Lecturer at the Hamburg University of Applied Science, the Friedrich-Wilhelm University of Bonn, and at the Institute of Emergency Medicine of the ASKLEPIOS Clinics Hamburg.

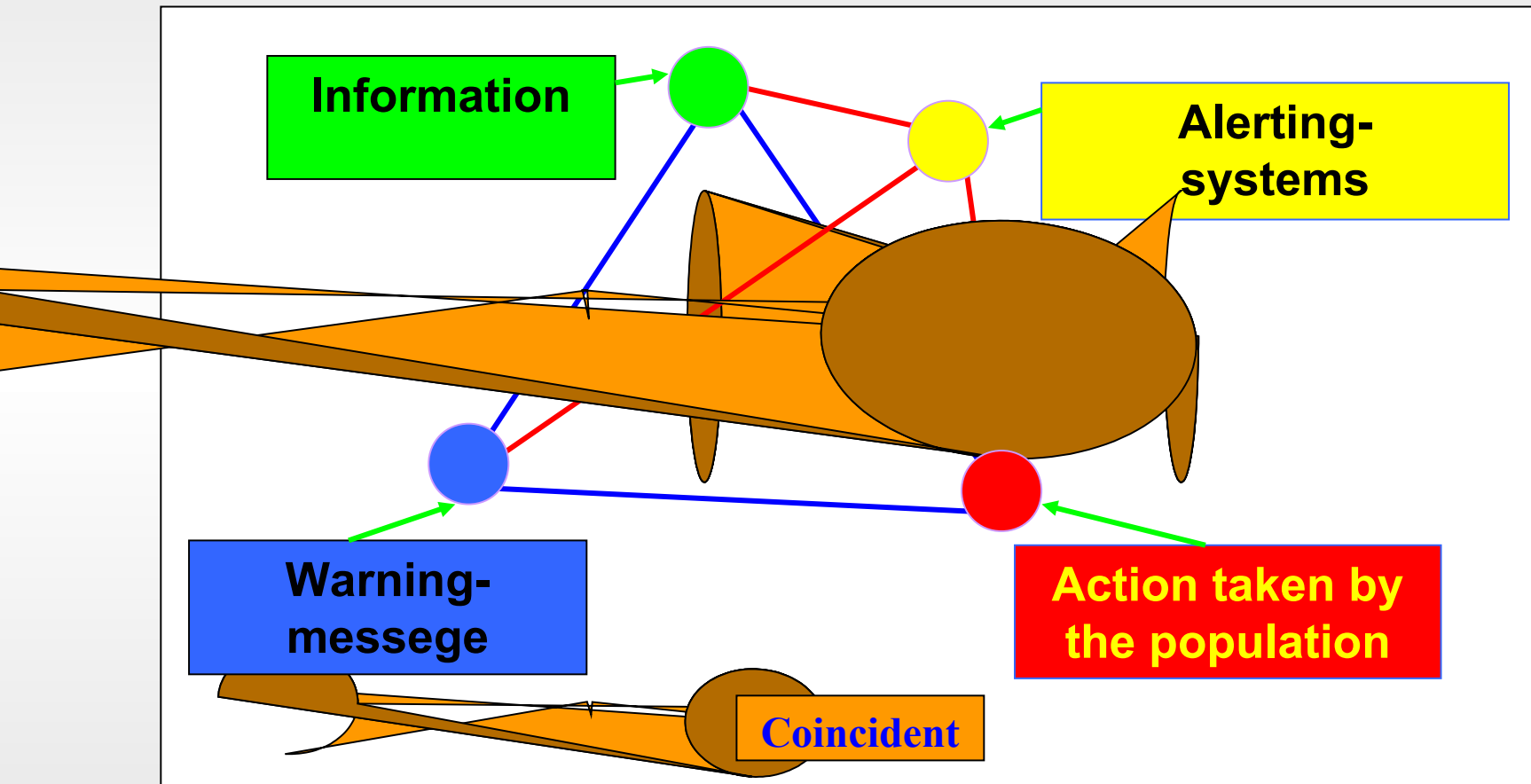


COMMUNICATION EMPHASIS ACROSS A TIME CONTINUUM

- **Warnings = one end of the continuum:**
 - ★ Specific detected event about to impact a population
 - ★ Rapid public protective action response warranted
- **Education = other end of the continuum:**
 - ★ Risk of events that could occur in the future
 - ★ Public household readiness actions warranted
- **And everything in-between:**
 - ★ Focus on warning and alerting systems



Information-, Warning- and Alerting-System





Information

- What kind of Risks are in the area
 - ★ Flash flood
 - ★ Toxic gases
 - ★ Explosion
- What is happened or could happened (e.g.)
 - ★ Evacuation starts at 10:00 h a.m.
 - ★ High rising water will flooded the main road
- Information basics:
 - What happened
 - Where is happened
 - Who is effected
 - Who could be effected
 - Who is save
 - Who and what is activated to solve the problem
 - Who will support us and is activated



education of the population

Warning messages

- If the disaster occurs, the population should/must (e.g.):
 - ★ Take shelter in place
 - ★ Close all windows and doors and shut down the air-condition
 - ★ Go up stairs / down stairs
 - ★ Preparing the evacuation



Alerting-Systems

- Sirens
 - Loudspeaker
 - Radio / TV
 - Broadcast by mobile Phone
 - Door to door
 - Social media
 - SMS
 - E-Mail
 -
- Wake up?



PURPOSE

- **Synthesize findings from research:**
 - ★ In the social sciences
 - ★ To bridge the gap between research & applications

- **By presenting:**
 - ★ Evidence-based applications for practitioners based on research findings regarding.....



THE BASIC QUESTION

How do you reach people in case of acute danger

-STOP....

-HEAR.... &

-TAKE PROTECTIVE ACTION for.....



Basic's elements of an effective warning-system

- Analyse all hazards/risks
- Information Channel
 - ★ Radio / TV
 - ★ Loudspeaker
 - ★ Social media
 - ★ Print media
 - ★
- Education of the public
 - ★ What should / must they do (well trained procedures)



Basic's elements of an effective warning-system

- Establishing an Alerting system with wake up effect
 - ★ Sirens
 - ★ Loudspeaker
 - ★ SMS
 - ★ E-Mail
 - ★
- Warning the public before alerting
- Alerting the public
- Warning and alerting at the same time



TERRORIST ATTACKS





TECHNOLOGICAL EVENTS





NATURAL DISASTERS





BUILDING FIRES





BIOLOGICAL HAZARDS





HAZARDOUS MATERIALS AND MORE....





INCLUDING PUBLIC PROTECTIVE ACTIONS SUCH AS....



VEHICLE EVACUATION





PEDESTRIAN & OCCUPANT EVACUATION





SHELTERING IN PLACE





BREATHING PROTECTION





ABOUT THE RESEARCH BASIS FOR WHAT WE'LL COVER



KNOWLEDGE PATHWAYS

- **Four bases for human knowledge:**
 - ★ Experience: events in our lives (*“lessons learned”*)
 - ★ Revelation: someone told you (*“best practices”*)
 - ★ Intuition: it seems right (*an “idea”*)
 - ★ Science: scientific method (*“a” predicts “b”*)

- **Presentation basis is knowledge gained using the scientific method:**
 - ★ May/may not conform to what you “know” based on experience, revelation or intuition



Incident Command Post for





Summary to MAC

The Multiagency Coordination

- Acquires, analyze and communicates situation reports
- Provides resources to support the incident command
- Operates crisis communication





Thank you!

I am ready!

**I am glad about
the following
Discussion!**

**Prof. Dr.-Ing. Peer Rechenbach
Email: rechenbach@t-online.de**