



## **Influence of warning information changes on emergency response**

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Mitigation and risk reduction of natural hazards is significantly related to the possibility of predicting the actual event. Some hazards can already be forecasted several days in advance. For these hazards, early warning systems have been developed, installed and improved over the years. The formation of winter storms for example can be recognized up to one week before they pass through Central Europe. This relative long early warning time has the advantage that forecasters can concretise the warnings over time. Therefore, warnings can even be adapted to alternating conditions within the process, the observation or changes in its modelling.

Emergency managers are one group of warning recipients in the civil protection sector. They have to prepare or initiate prevention or response measures at a specific point of time, depending on the required lead time of the referring actions. At this point of time already, the forecast and its equivalent warning, has to be assumed as a stage of reality, hence the decision-makers have to come to a conclusion.

These decisions are based on spatial and temporal knowledge of the forecasted event and the consequential situation of risk. With incoming warning updates, the detailed status of information is permanently being alternated. Consequently, decisions can be influenced by the development of the warning situation and the inherent tendency before a certain point of time. They can also be adapted to updates later on, according to the changing 'decision reality'.

The influence of these dynamic hazard situations on operational planning and response by emergency managers is investigated in case studies on winter storms for Berlin, Germany. Therefore, the issued warnings by the weather service and data of operation of Berlin Fire Brigades are analysed and compared. This presentation shows and discusses first results.