

B.PREPARED- Progressive forecast modelling of hazardous dispersions in a decision support system

Hieden Alexander¹

¹ GeoSphere Austria

The main aim of the FFG project B.PREPARED is the development of an emergency planning and decision support system for managing accidents involving hazardous substances and toxic materials in Austria. The system will support the first responders as well as decision-makers and authorities in disaster management. The timely availability of all decision criteria based on the actual current information is a major factor contributing to the successful management in such a situation with the goal of limiting detrimental effects on the health of the population and damages on the environment. The magnitude of the impact area generated by an accidental release of a toxic chemical depends on a number of parameters related to the modalities of the release under consideration, external conditions under which the dispersion will occur (meteorological, environmental, associated to the type of terrain, etc.), and on the chemical itself (physical properties and toxicity). Further, the B.Prepared system will implement preparatory data gathering, analyze threat situations using reference scenarios, information exchange with first responders, and modelled hazard forecasting in order to provide appropriate decision-making support based on the current information status.

In this contribution, we will give insights on the structure and the design of the system, explain the different states of the forecast modelling of hazardous substances within the system chain as well as present some preliminary results based on reference scenarios.