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GeoEra HOVER WP7 – Harmonized vulnerability to pollution mapping of the upper aquifer

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45 Geological Survey Organisations (GSOs) from 32 European countries developed an ERA-NET Co-Fund Action: Establishing the European Geological Surveys Research Area to deliver a Geological Service for Europe (GeoERA). The GeoEra project HOVER (**H**ydrogeological processes and Geological settings **over** Europe controlling dissolved geogenic and anthropogenic elements in groundwater of relevance to human health and the status of dependent ecosystems) aims to gain understanding of the controls on groundwater quality across Europe using the combined expertise and data held by member states. Objectives of the HOVER work package 7 (WP7) are i) review of existing index methods for assessing the vulnerability of the upper aquifer to pollution and selection of the methods to be applied at the pilot and pan-EU scale, ii) compilation and harmonization of input data sets required for assessing vulnerability, and iii) assessment of aquifer vulnerability to pollution (both in maps and 2-d schematic cross sections).

The selected methodology adopted in this project is DRASTIC, which will be applied in ten pilot areas and at the pan-European scale. In karst regions, however, the COP method will be applied in the pilots. This is accompanied with comparisons with the outcomes of existing national vulnerability assessments. It is anticipated to validate the resulting vulnerability maps at the pilot level using available groundwater nitrate contamination information.

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