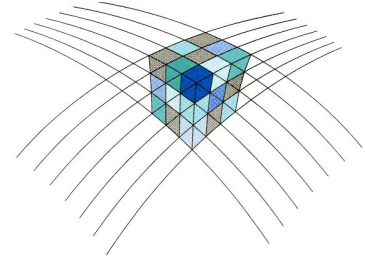


NCG



Netherlands Center for Geodesy and Geo-informatics

## Abstract submission for the NCG Symposium 2020

Abstract submission deadline: **24 August 2020**

Please submit your abstract EasyChair

<https://easychair.org/conferences/?conf=neg2020>

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Presentation title: Effects of former coalmining: decreasing the search space of sinkhole formation.

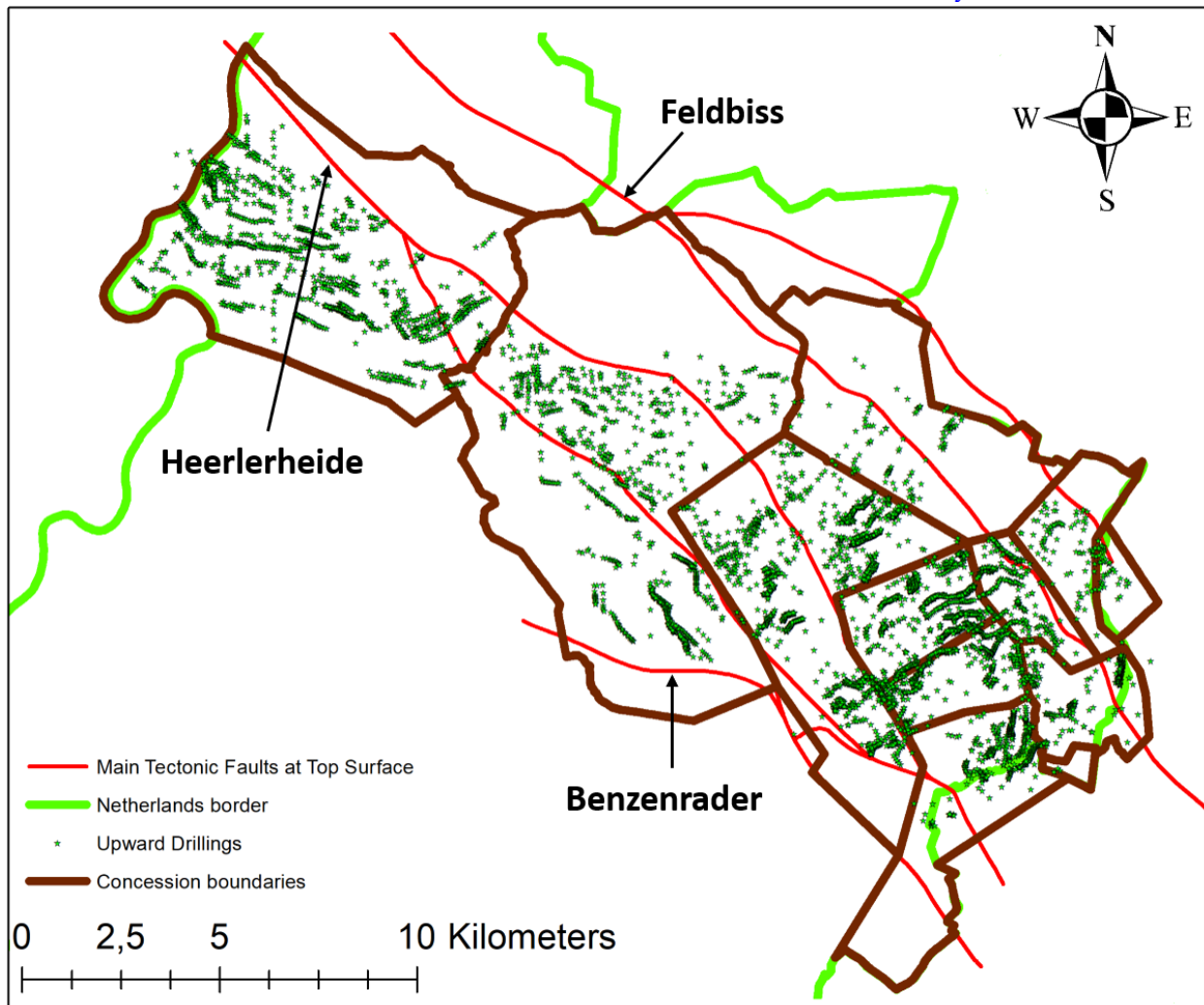
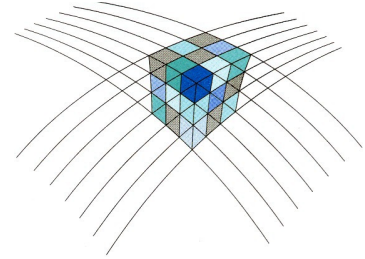
Demo: no

Abstract (~100 words and optionally 1-2 figures):

After decades of coal exploitation during the early 20<sup>th</sup> century in Limburg, lagging aftereffects at the surface, such as sinkholes, are still experienced today.

InSAR time-series have shown to contain information on accelerating surface deformation prior to sinkhole formation. **In principle this information may be used as an early warning system.** However, the signature for sinkhole deformation are often single point-scatterers which are difficult to identify due to the large surface area of the former mining concessions.

Here we exploit georeferenced historical mining maps, an upward drilling data set and building locations to significantly reduce the search space for identifiers of future sinkholes.



Overview of all upward drilling data logs in the former coal-mining concessions.