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EDGE
Environmental Geosciences

This presentation participates in OSPP

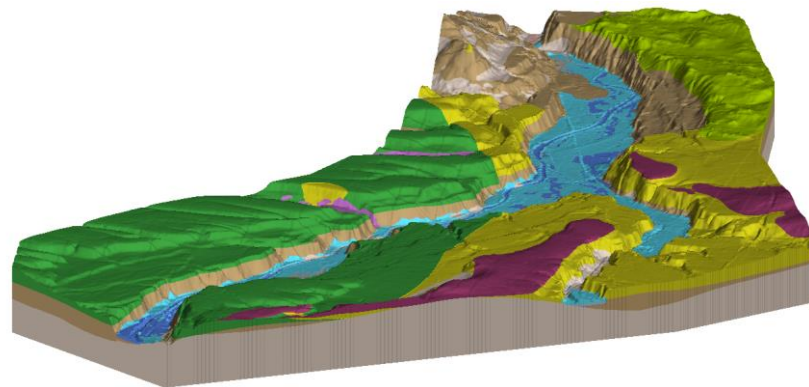


Outstanding Student & PhD
candidate Presentation contest

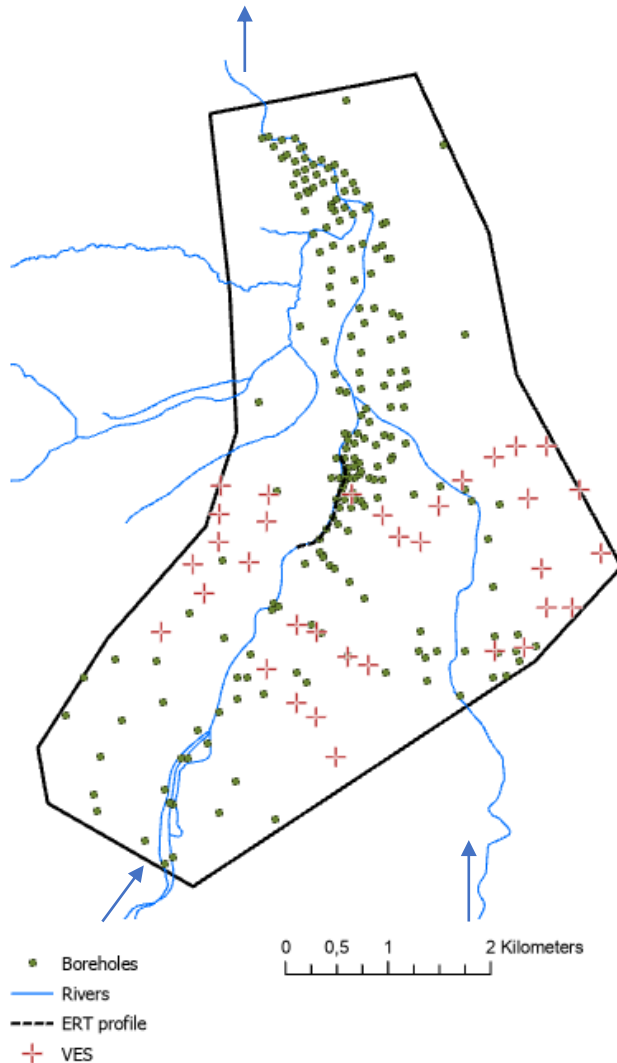
3D geological modelling of fluvio-glacial aquifers to improve water work operations

Johannes Ehrendorfer, Miguel Angel Marazuela, Klaus Erlmeier, Giovanni Formentin,
Georg Seidl, Thilo Hofmann

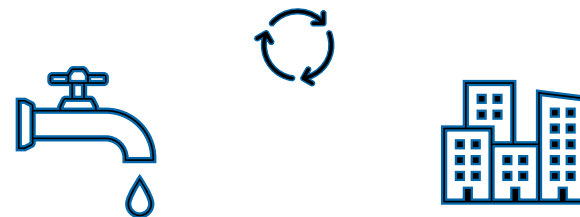
johannes.ehrendorfer@univie.ac.at



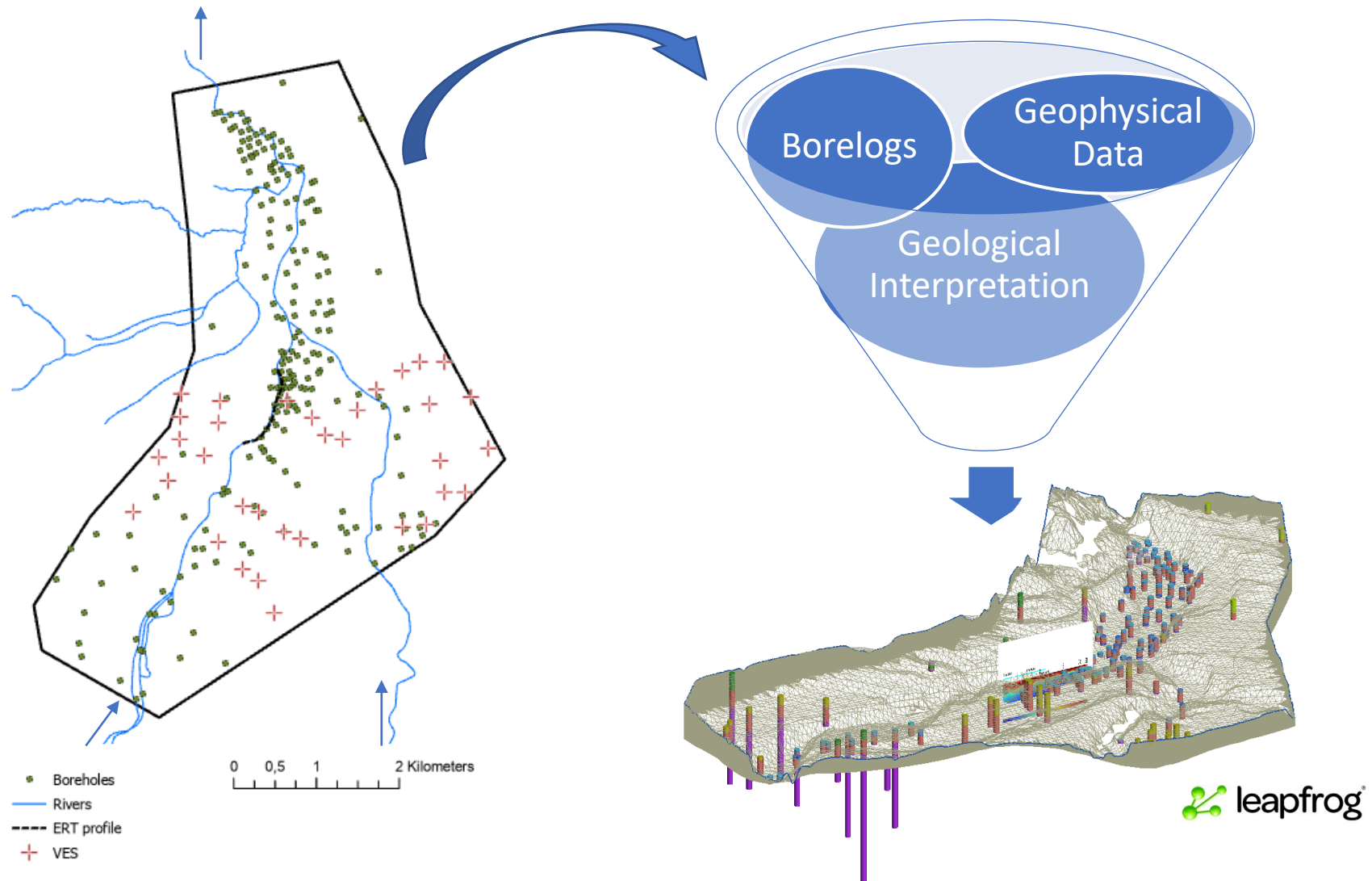
1. Motivation – Why bother?



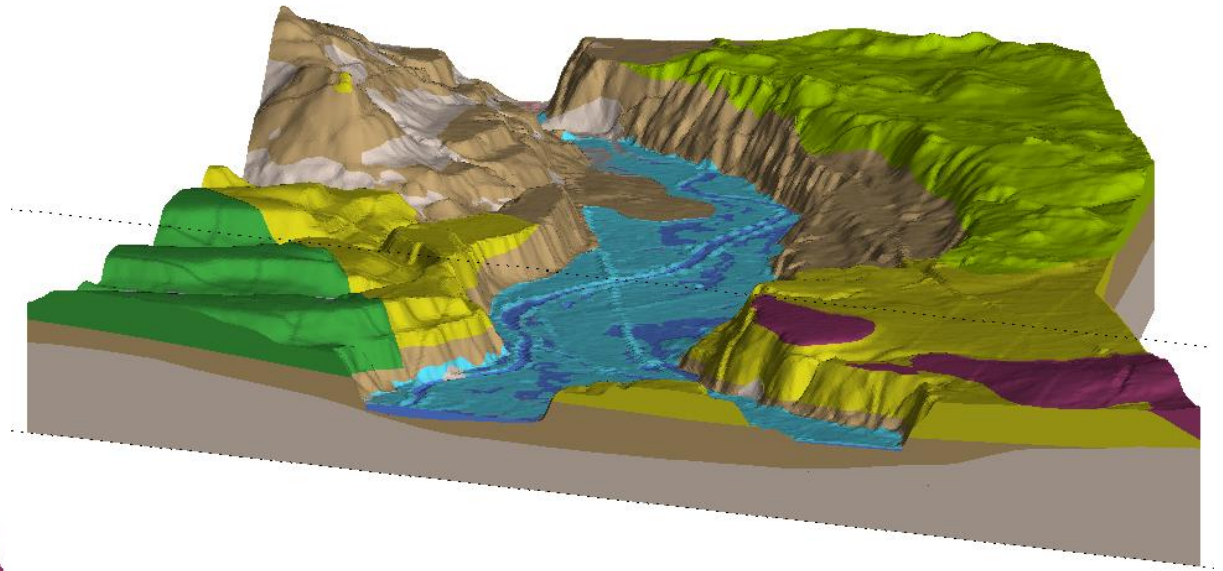
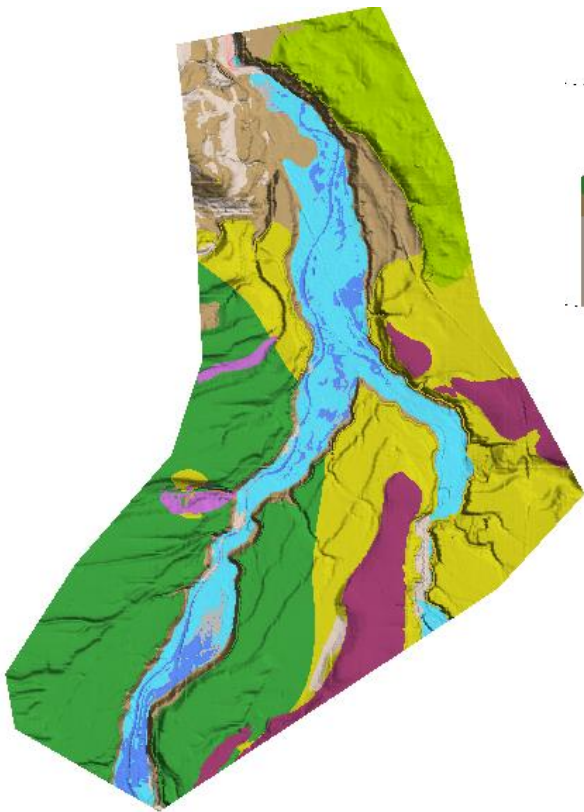
- Aquifer provides **drinking water** to major city
- Water **quality** and **quantity** needs to be preserved for future generations
- Visualization & Plausibility
- Constraint for numerical groundwater model



2. Materials and Methods

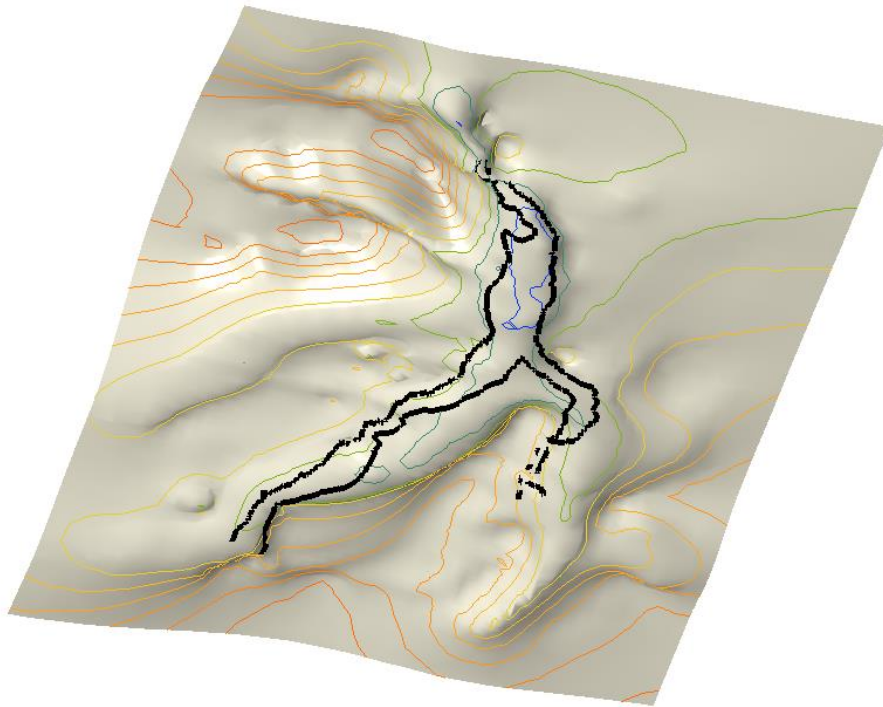


3. Results

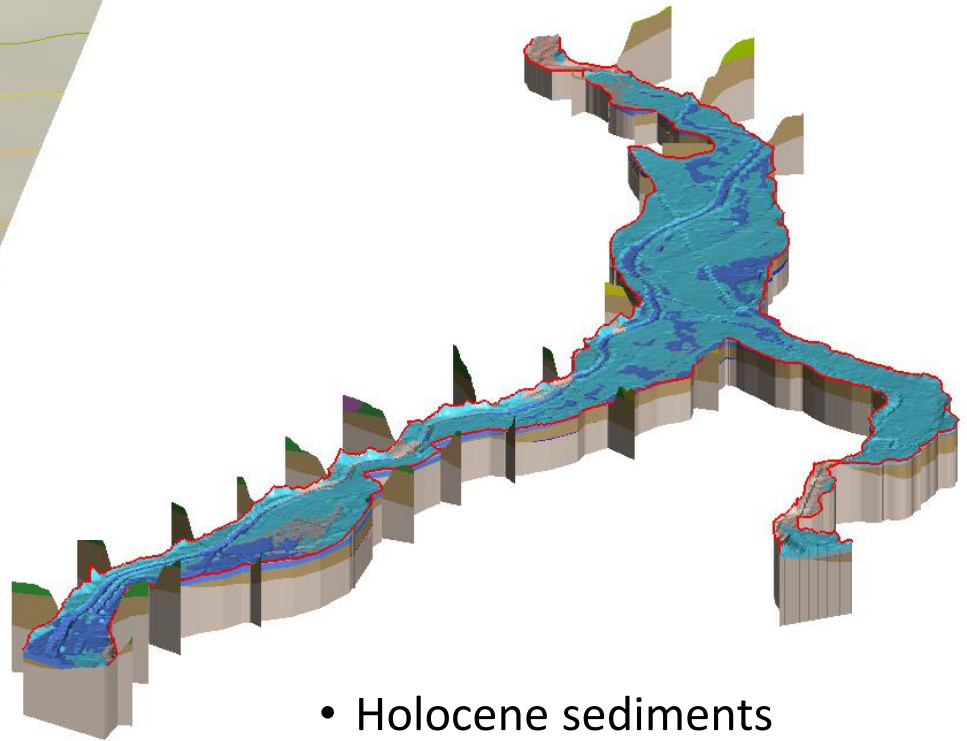


- Qualitative and Quantitative analysis

3. Results



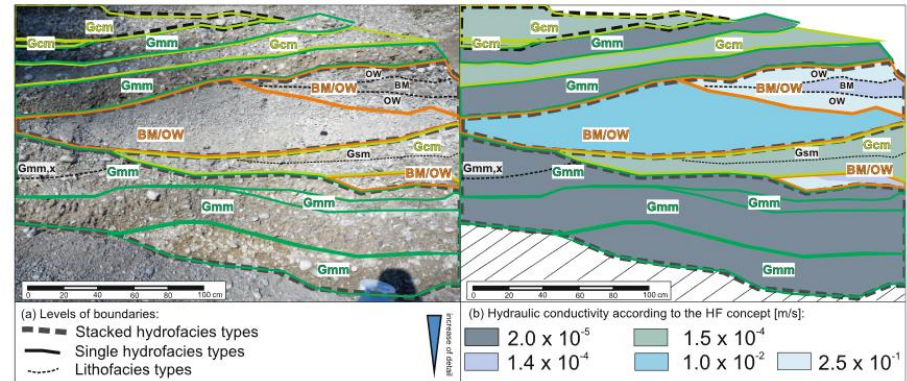
- Aquifer base



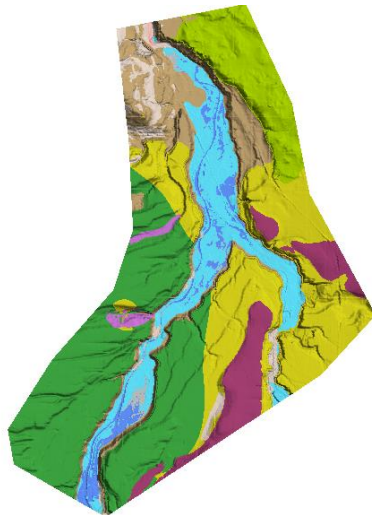
- Holocene sediments

4. Next Steps - Outlook

- Field survey
- Mapping lithofacies and hydrofacies
- Transition-probability approach (T-PROGS)



Theel et al. (2020)



Hydraulic conductivity

→ Lithofacies → Hydrofacies →

