

Challenges of geostatistical methods

Spatial Statistics

Madlene Nussbaum

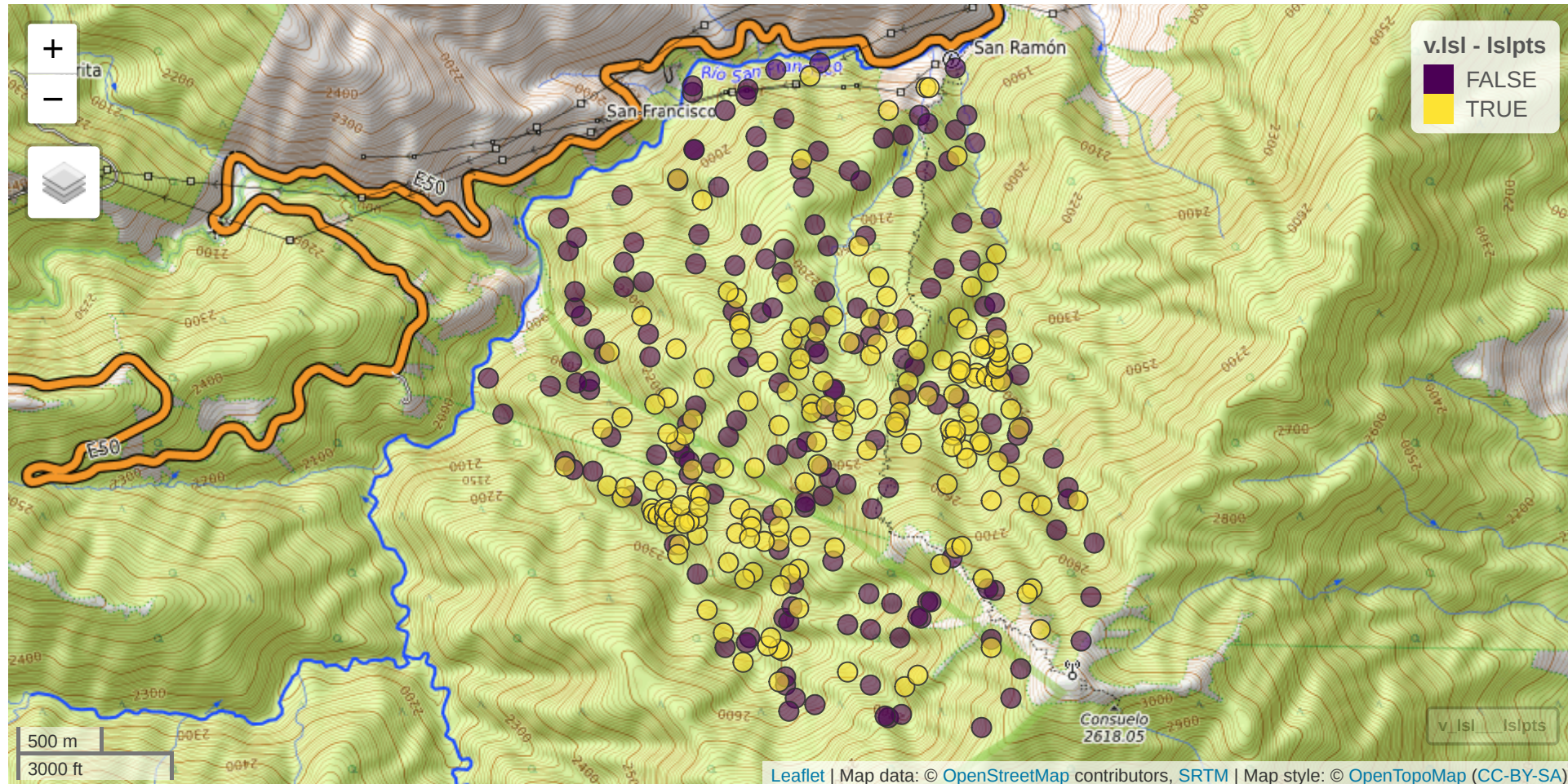
m.nussbaum@uu.nl

Utrecht University, Department of Physical Geography

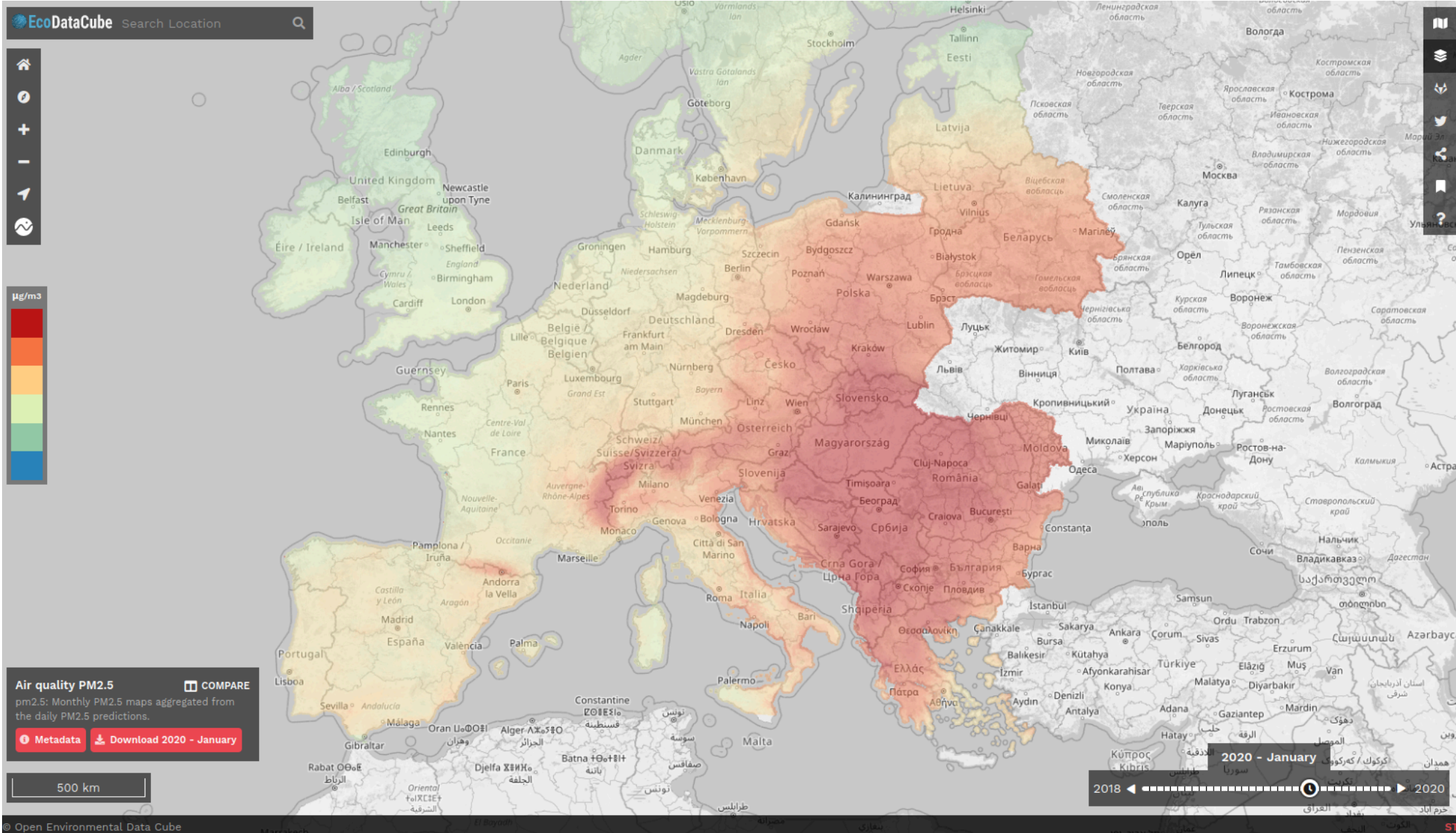
1 Geostatistical data analysis today

Spatial data analysis – examples

Binary responses – Landslide occurrence

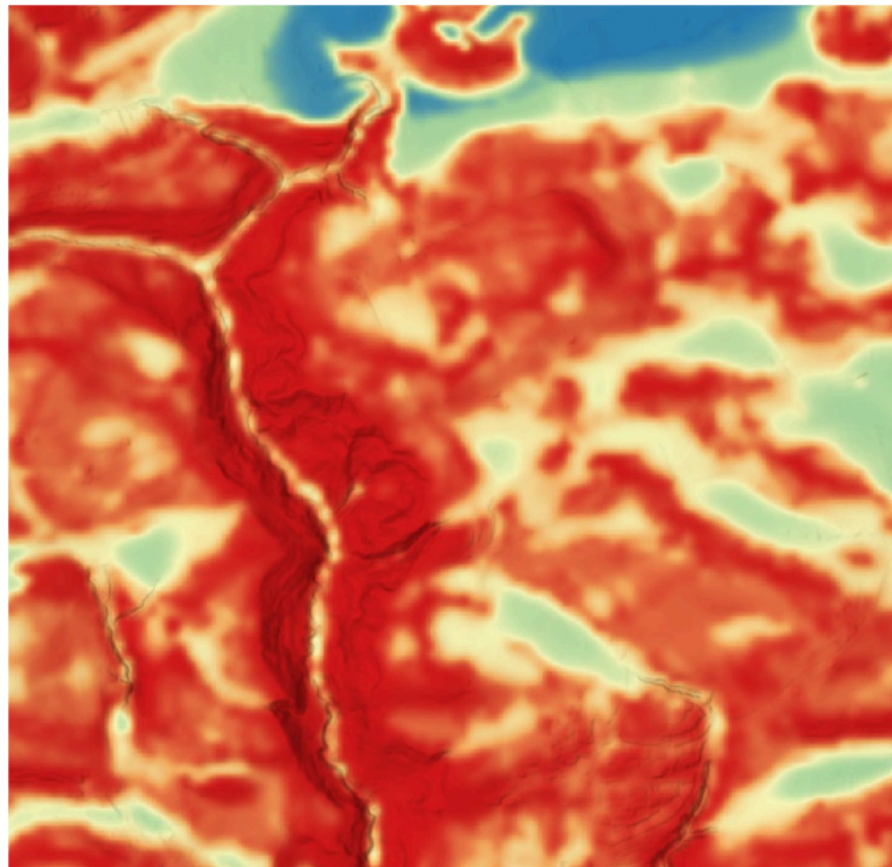


European wide air pollution mapping

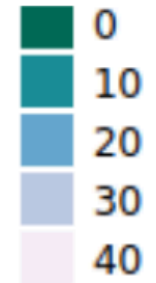
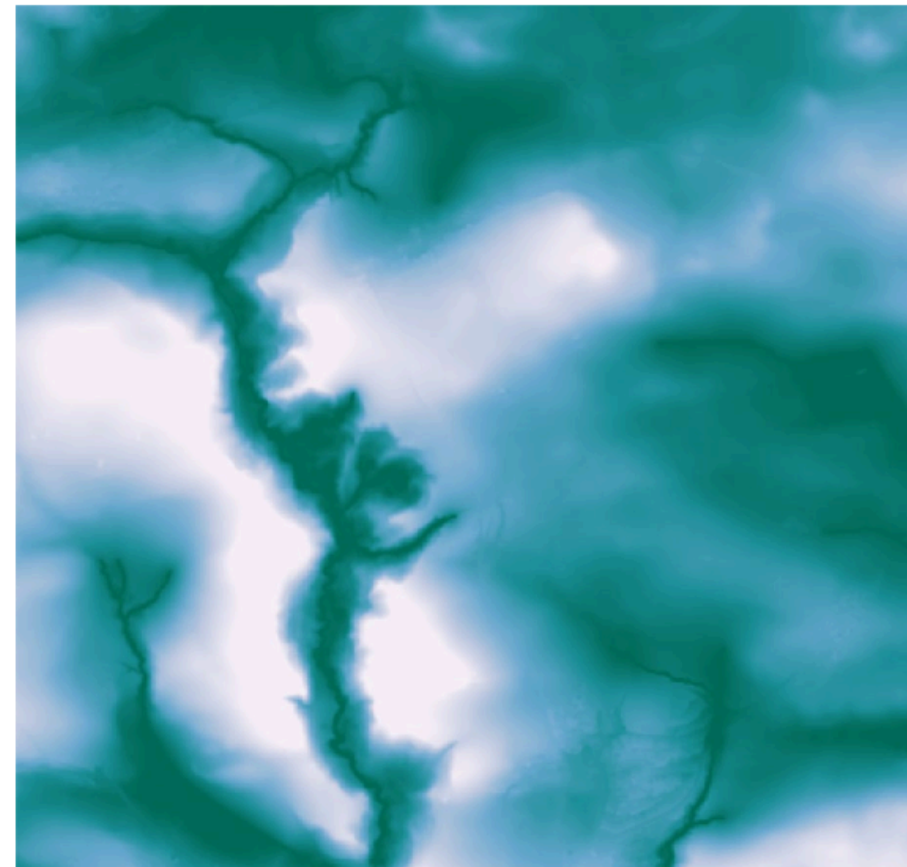


Feature engineering - algorithms

Erosionaccumulation-Index
MRVBF



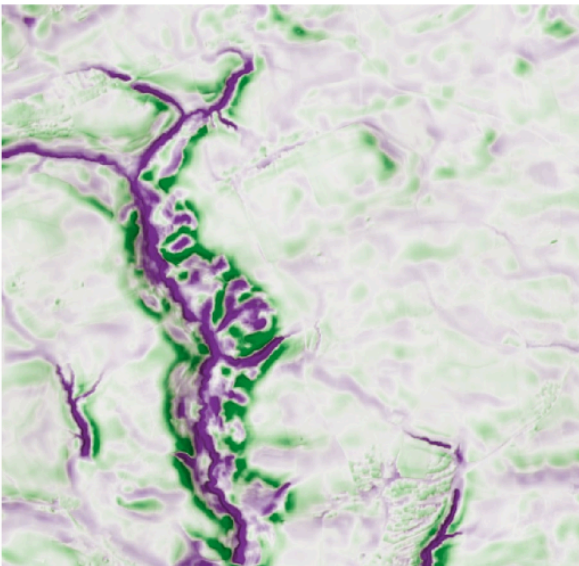
Vertical distance
to rivers



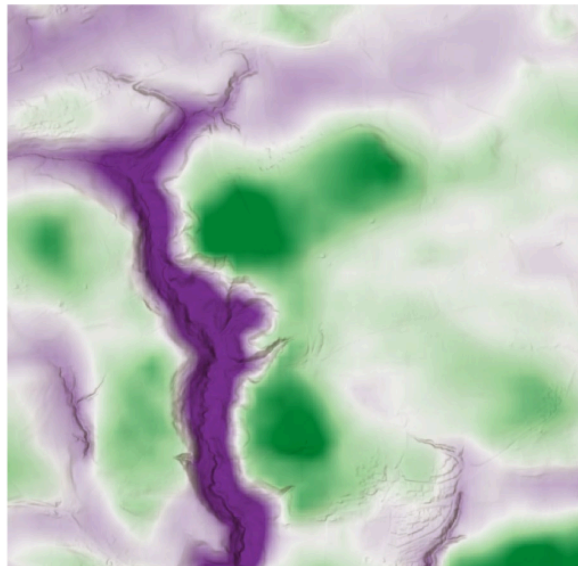
Feature engineering – settings

Topographic Position Index (TPI)

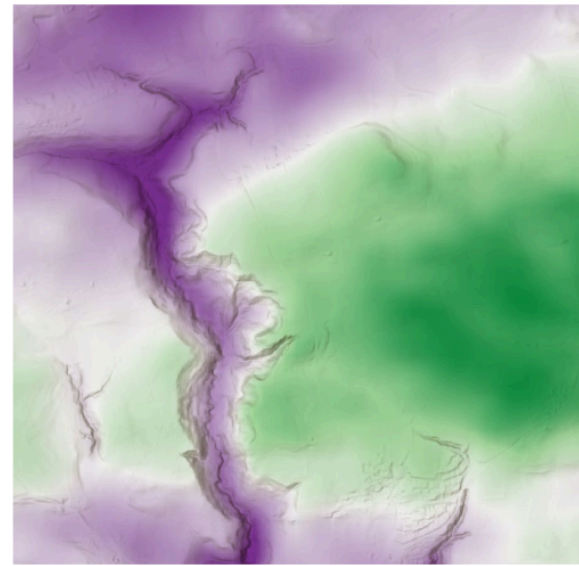
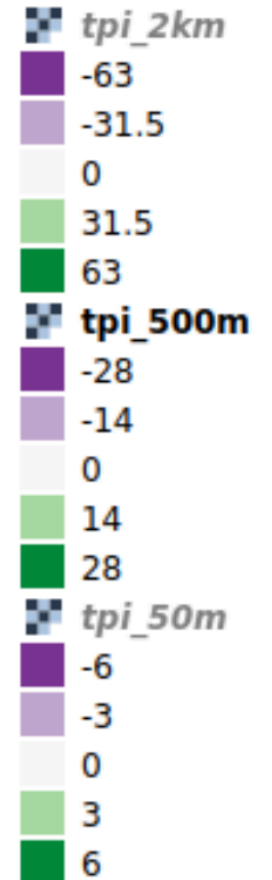
TPI Radius 50 m



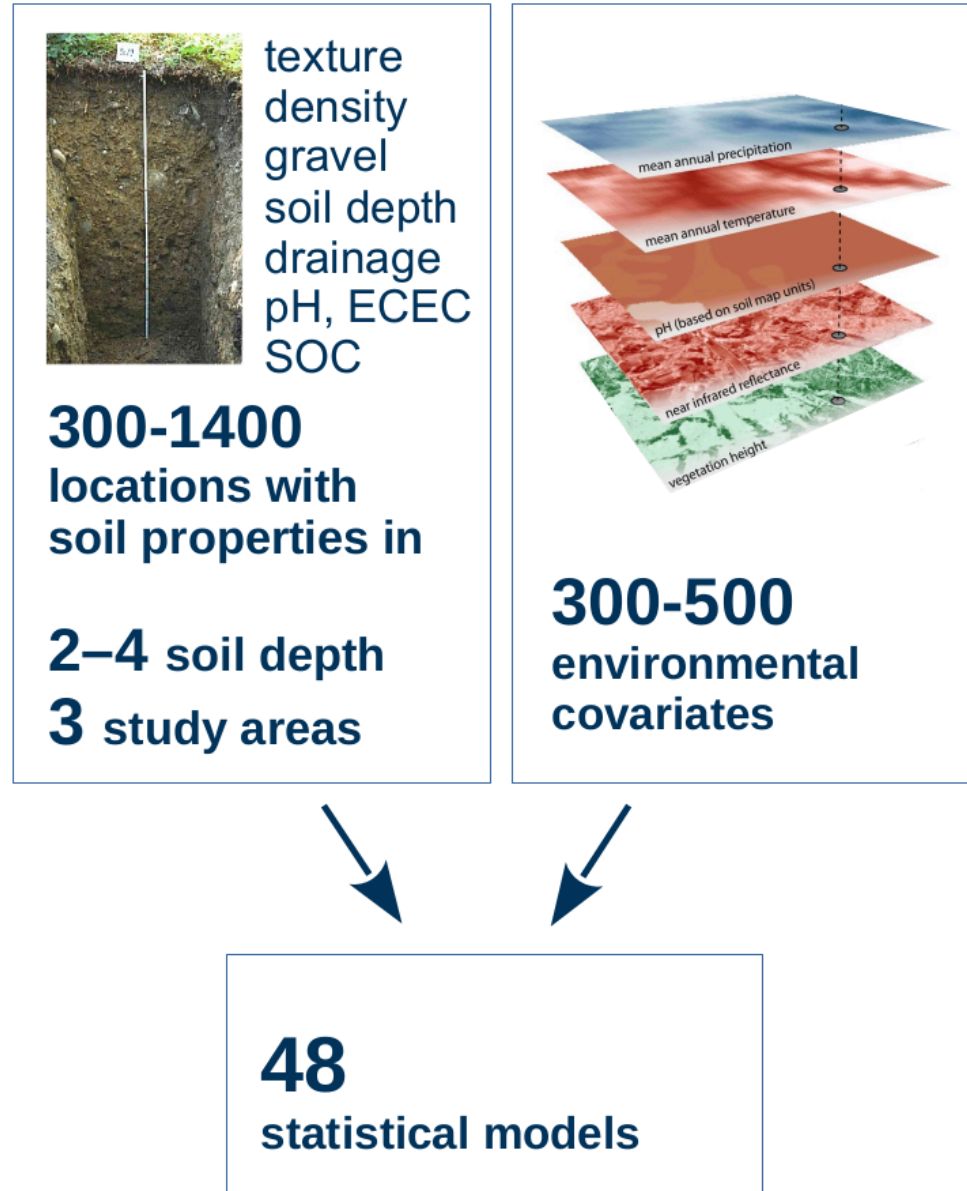
TPI Radius 500 m



TPI Radius 2 km



Multi-attribute soil mapping



2 Challenges for classical geostatistics

1. What “properties” does a spatial prediction method need to have to handle today’s spatial data problems?
2. What are the challenges with classical geostatistical approaches regarding these “properties”?



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