



BENCHMARKING OF SOIL HEALTH

A CASE STUDY FROM DENMARK

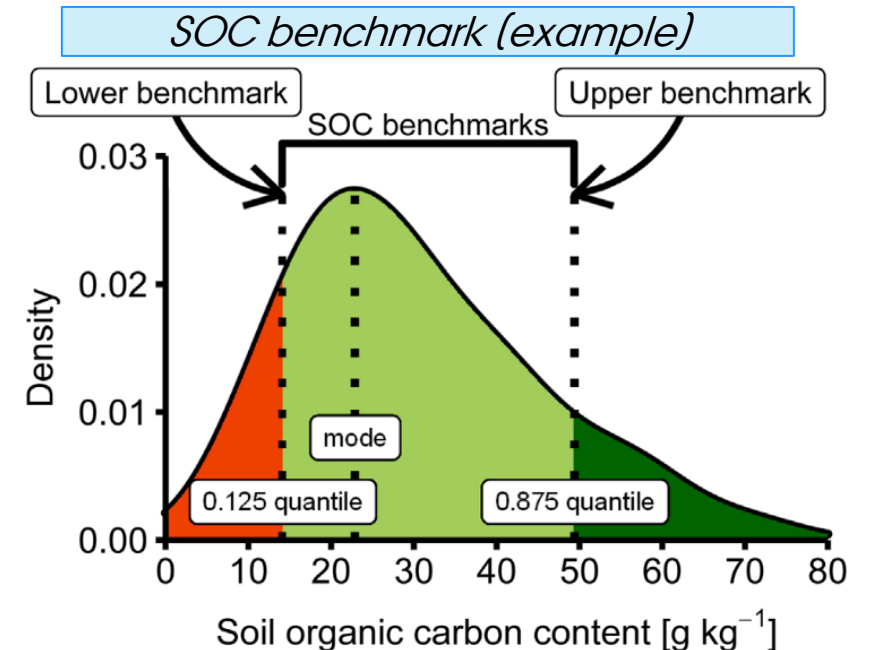


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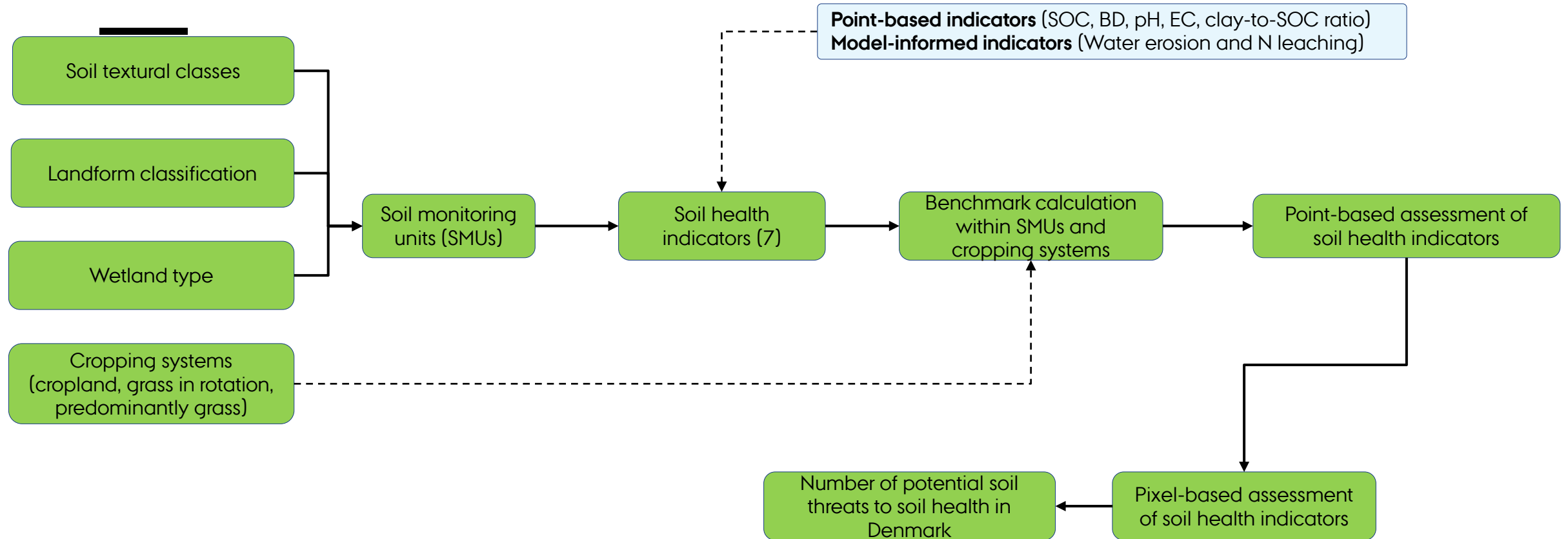


OBJECTIVES

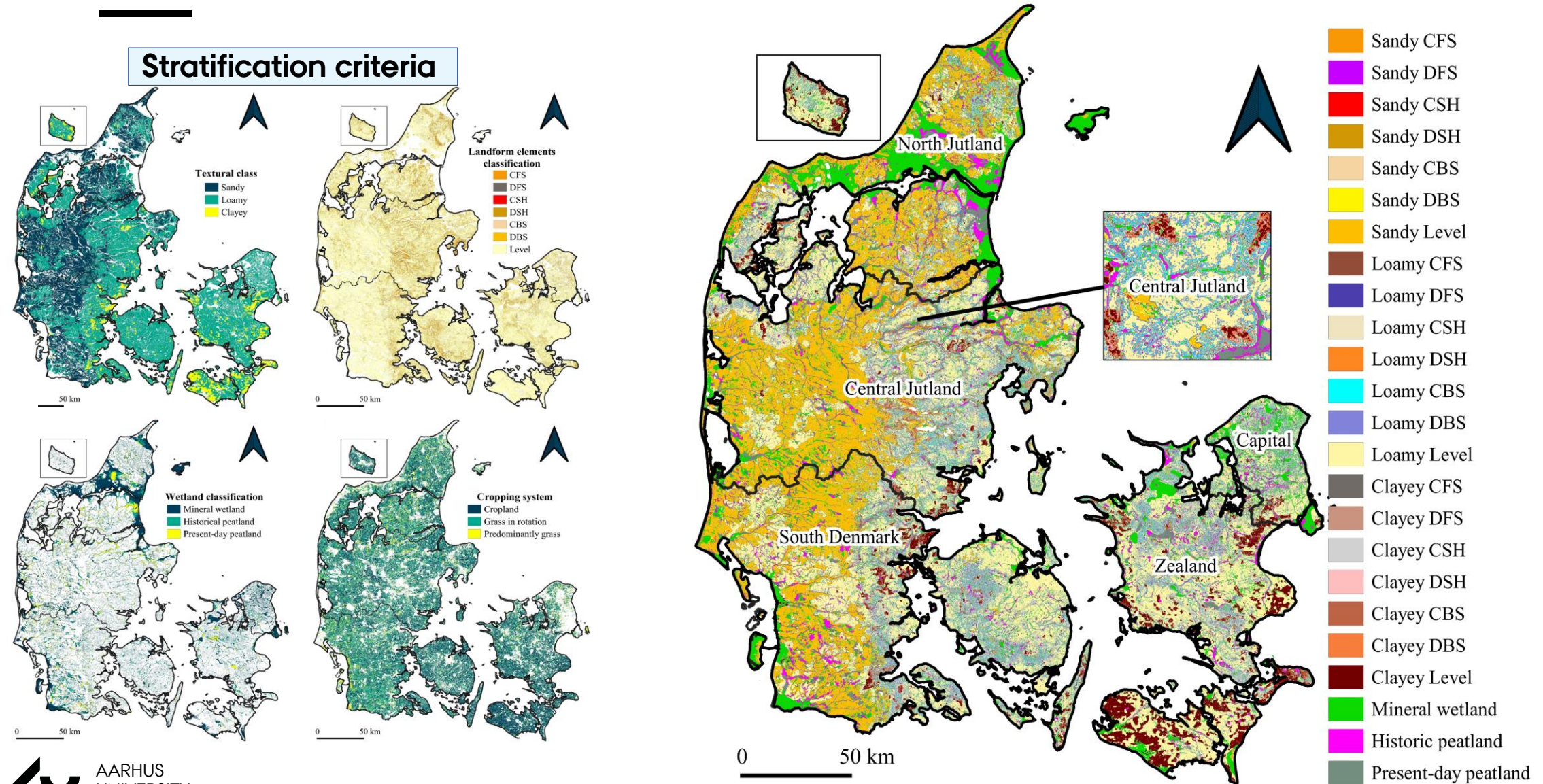
1. afgrænse jordovervågningsenheder, der svarer til regioner i Danmark med lignende jordforhold,
2. karakterisere fordelingen af jordsundhedsindikatorer inden for jordovervågningsenhederne
3. generere stedsspecifikke benchmarks, vurdere statussen for jordsundhedsindikatorer,
4. give en rumlig repræsentation af den overordnede jordhelsestatus på tværs af jordovervågningsenhederne i Danmark



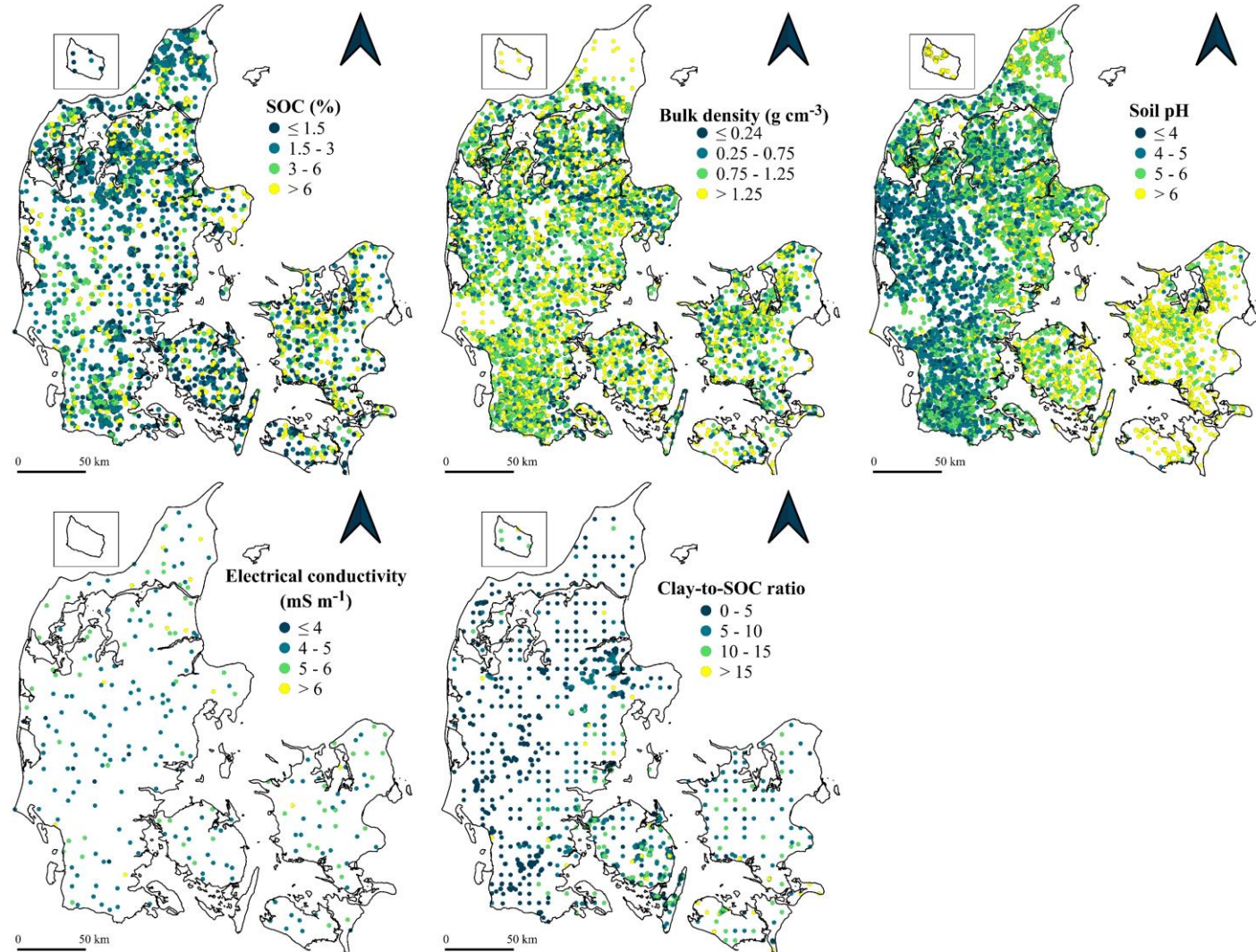
METHODOLOGY



SOIL MONITORING UNITS (SMUs)



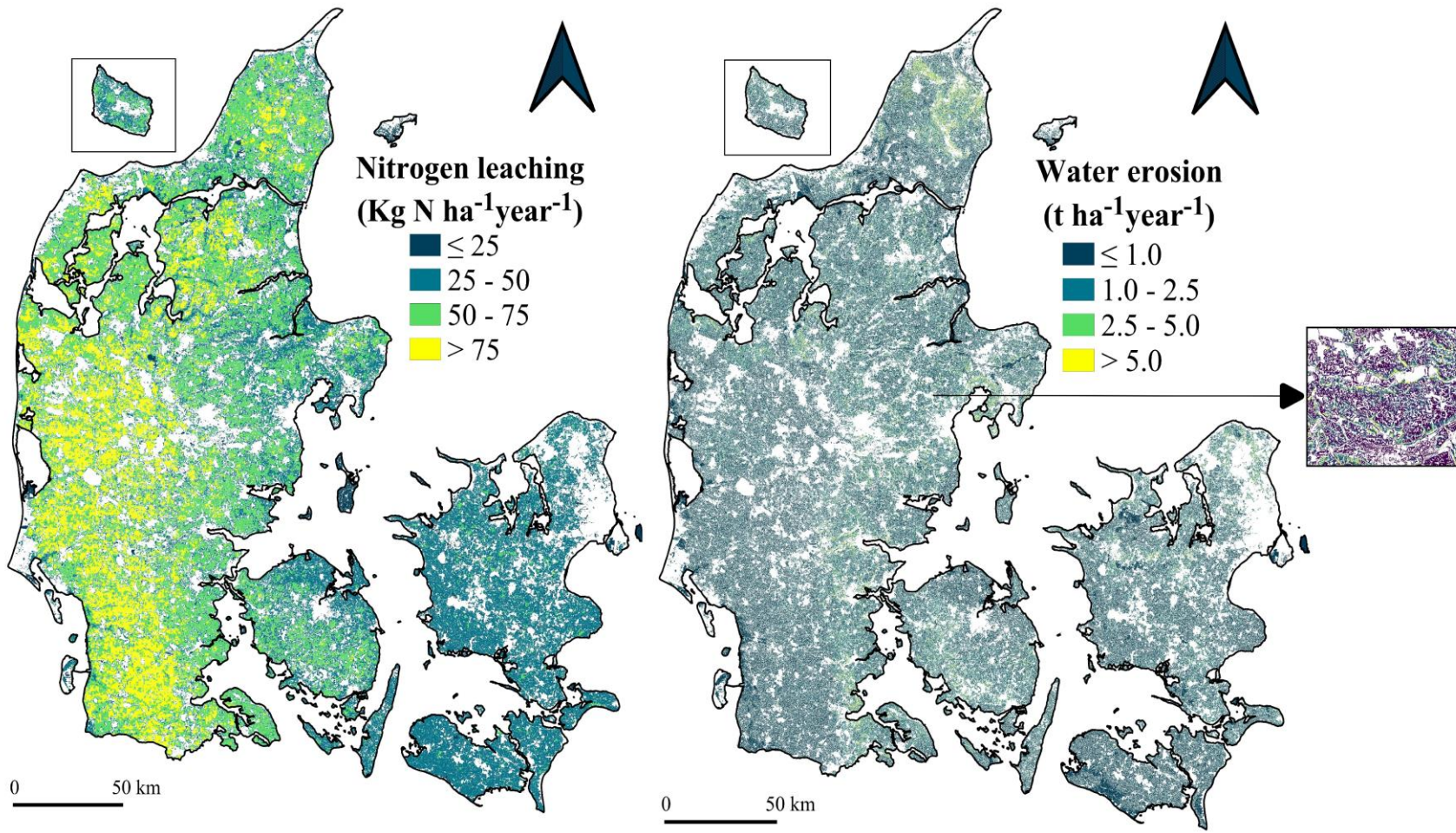
SOIL HEALTH INDICATORS



Point-based indicators (topsoil)

1. SOC (%)
2. Bulk density (g cm⁻³)
3. Soil pH H₂O
4. Electrical conductivity (mS m⁻¹)
5. Clay-to-SOC ratio

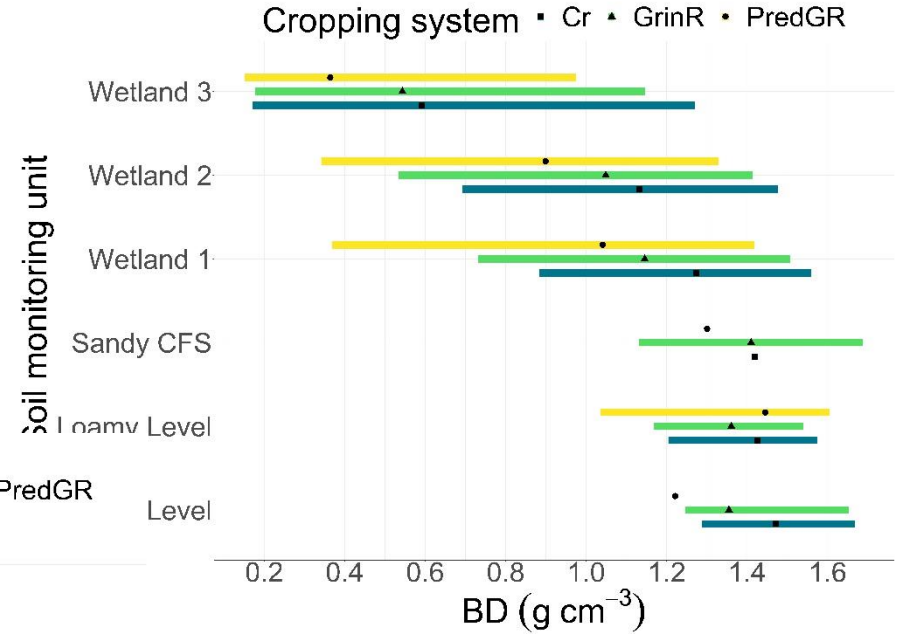
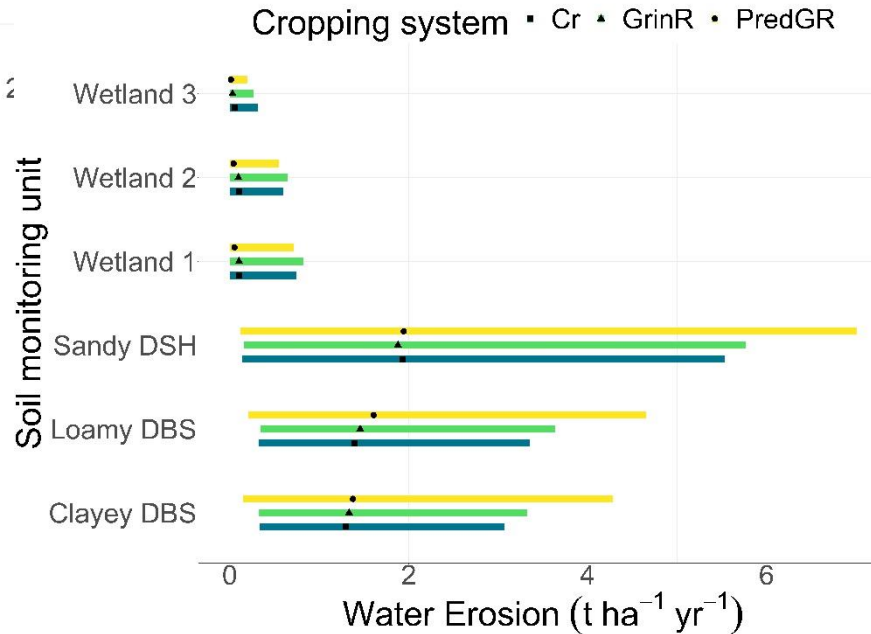
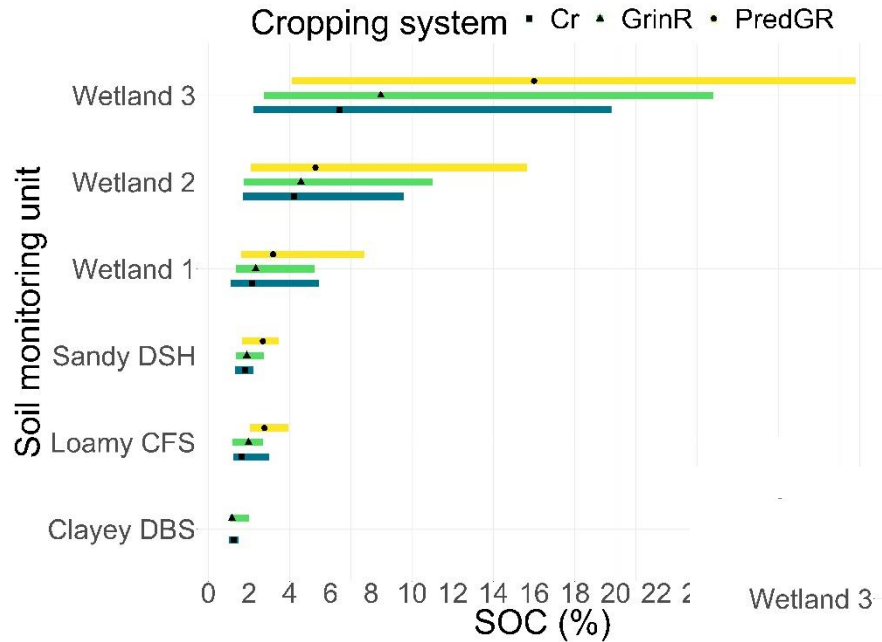
SOIL HEALTH INDICATORS



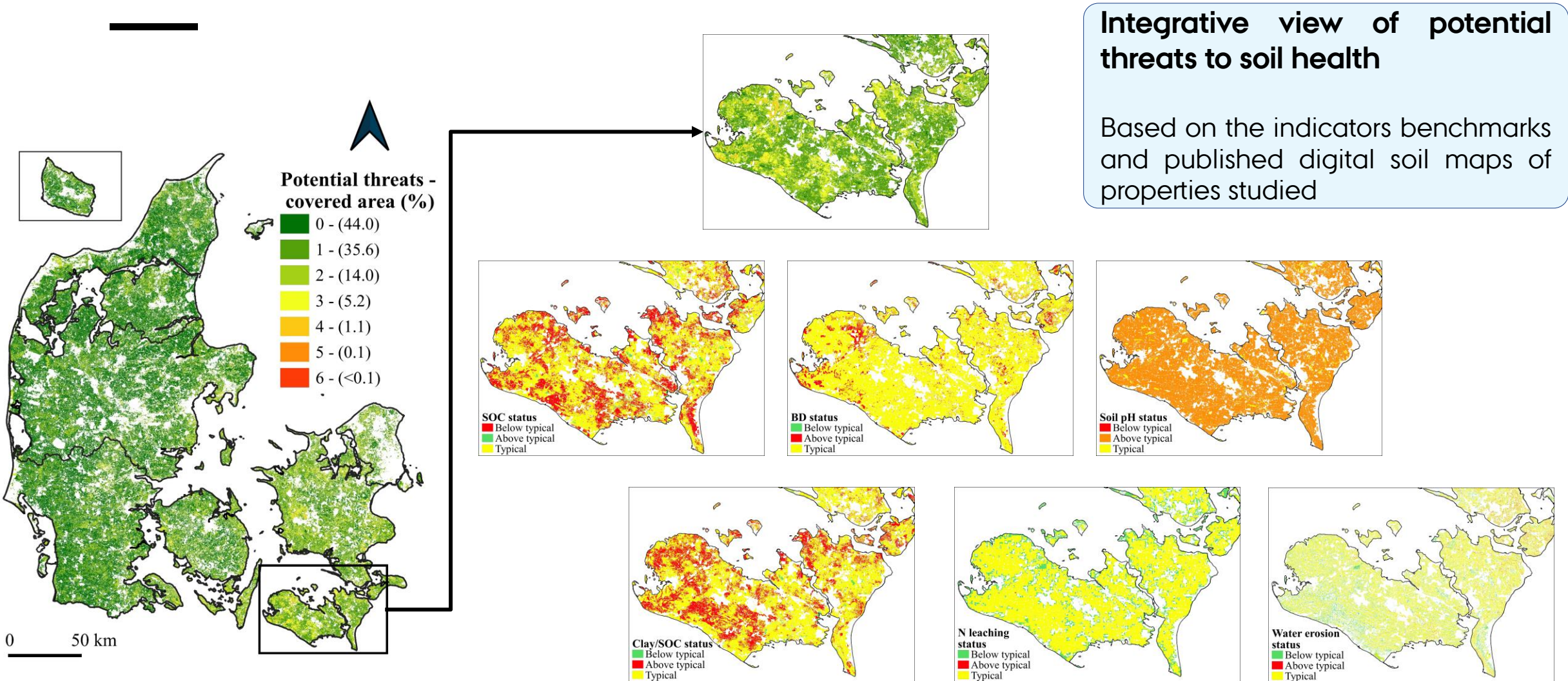
Model-informed indicators

1. Nitrogen leaching (Kg N ha⁻¹ year⁻¹)
(Børgesen, Sørensen et al. 2020).
Based on the **NLES5** model.
2. Water erosion (t ha⁻¹ year⁻¹)
(Onnen, Heckrath et al. 2019).
Based on the **WaTEM** model.

INDICATOR BENCHMARKS WITHIN SMUs



SOIL HEALTH ASSESSMENT





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