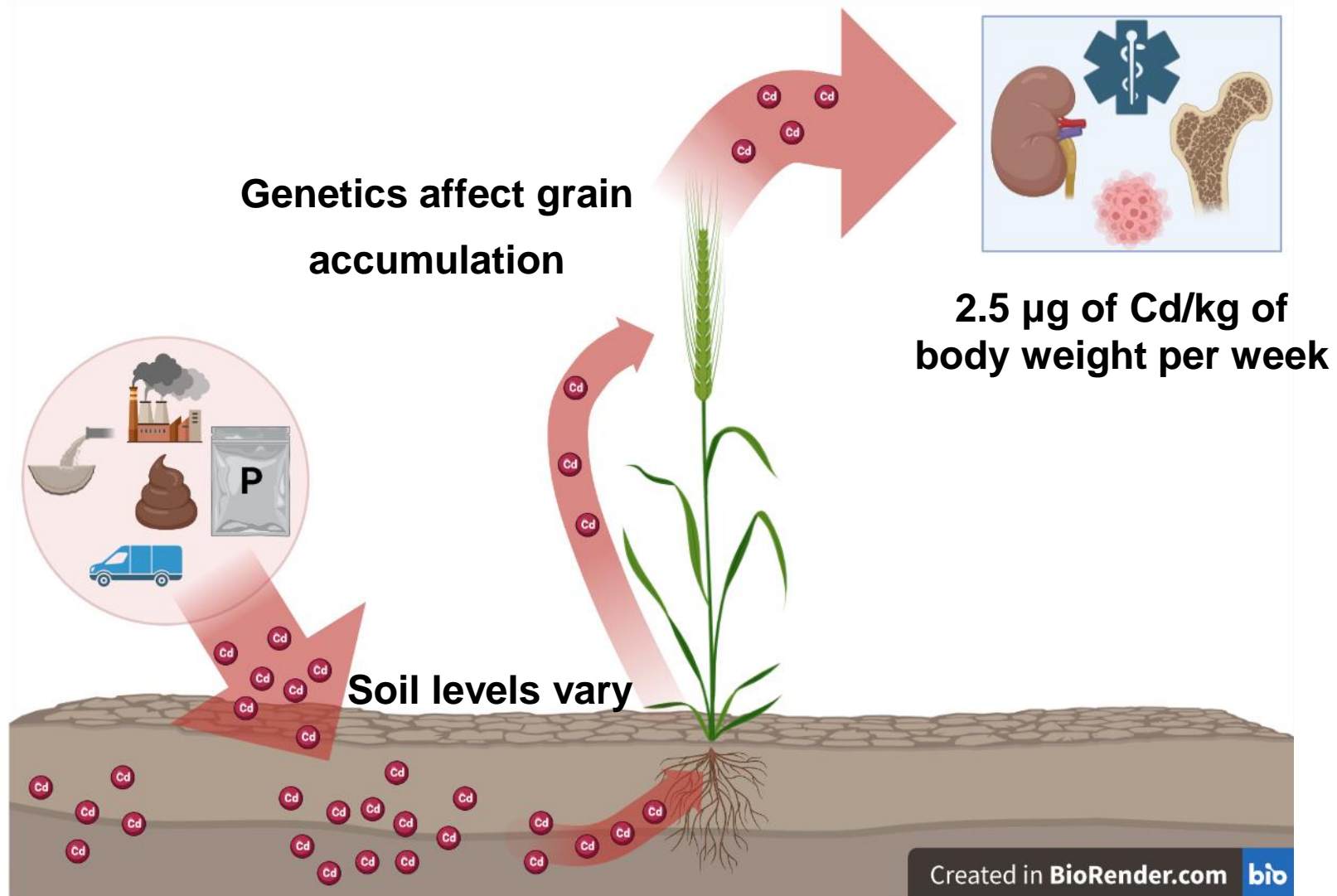


# Towards winter wheat and oat cultivars with low grain cadmium content

Rami-Petteri Apuli

# Background

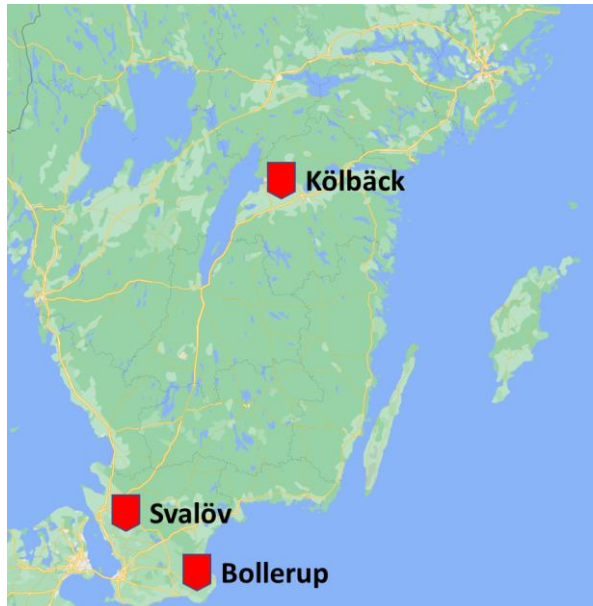


# Breeding tools we aim to develop

- 1. An improved grain Cd genomic prediction model**
  - Climate, growth/development and soil variables
  
- 2. A robust set of genetic markers for low grain Cd**
  - Reduced need for high-cost lab analyses

# Project outline – Data collection

- Breeding lines of wheat (n≈400) and oat (n=266)
  - From Lantmännen yield trials
  - Genotyped SNP-chip
  - Grain Cd, ear emergence and height
- Soil estimates:
  - Cd levels
  - Clay content
  - Organic content
  - pH
- Climate variables:
  - Temperature
  - Rainfall

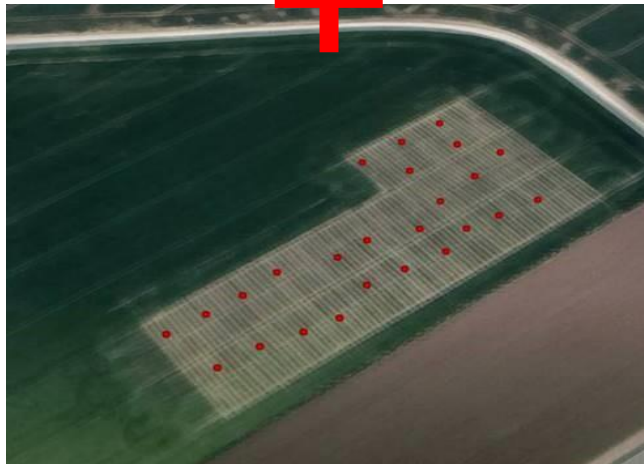


Site	Expected soil Cd level	Species	Years of study
Bollerup	Medium - High	Wheat	2022-2023
Kölbäck	Medium	Oat	2022-2023
		Wheat	
Svalöv	Medium	Oat	2021-2023
		Wheat	

**Initial results soon!**

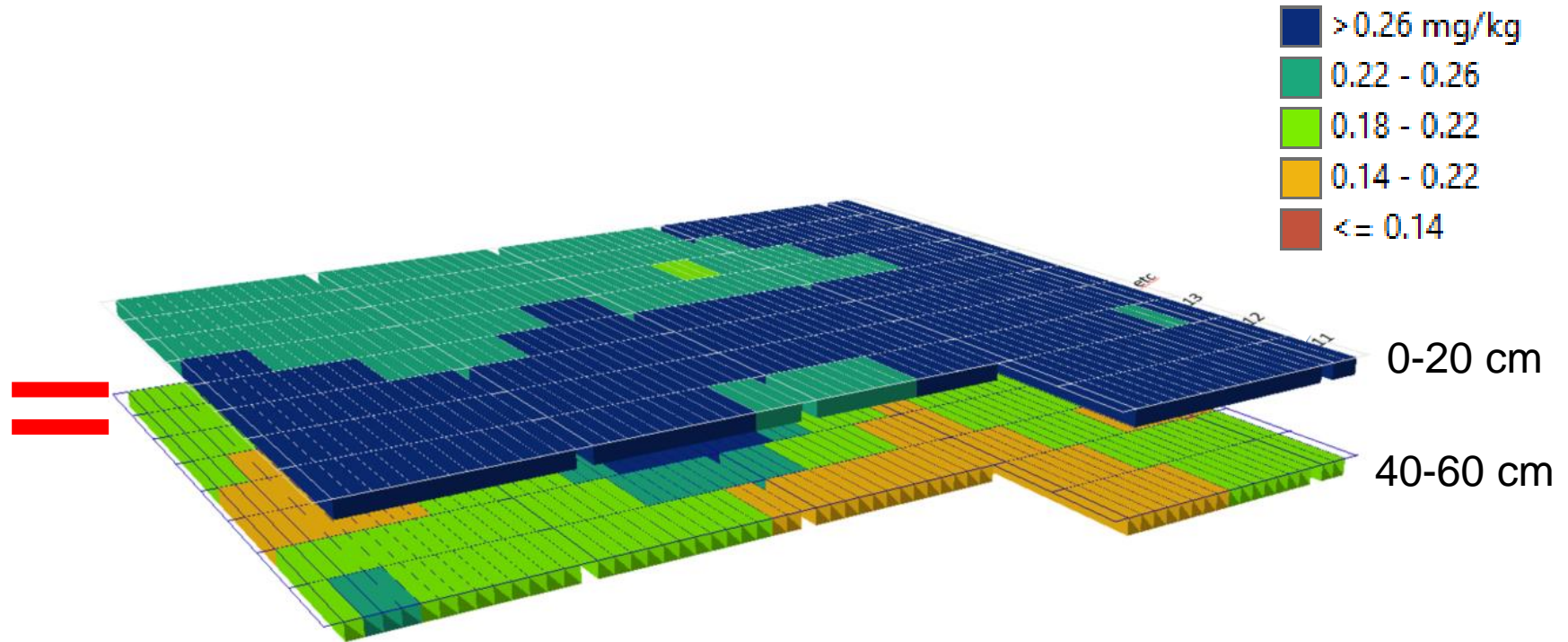
# Project outline – Data collection

## Gamma-ray sensing



Soil samples

## Soil Cd estimates



# Thank you for your attention!



## CONTACT DETAILS:

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