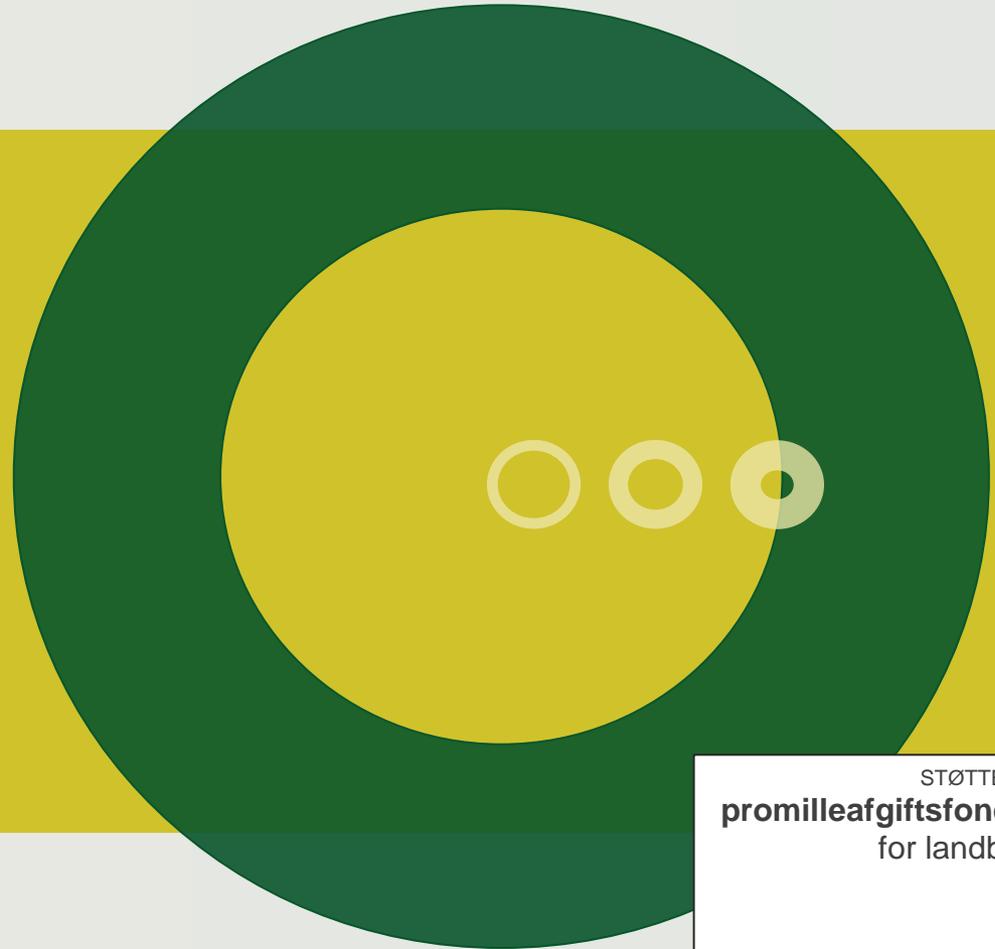


# Pheno- and genotyping in plant breeding

Lars Eriksen, VFL

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STØTTET AF  
**promilleafgiftsfonden**  
for landbrug

## Two projects: FAUPE and "Ny Udbyttefremgang"

- Initiated by: The committee for prioritizing initiatives within plant production
  - Agricultural organisations
  - Plant breeding industry
- Funded by "Promilleafgiftsfonden"
- Planned as three year projects
- One year funding

# FAUPE

- Participants
  - Copenhagen University
  - Aarhus University
  - Knowledge Centre for Agriculture
- Associated partners
  - DLF Trifolium, grasses
  - LKF Vandel, potatoes
  - Nordic Seed, cereals
  - Sejet Plantbreeding, cereals
  - CID, Crop Innovation Denmark

# Program

- 11:30 Lunch, Sandwich
- 12:00 Welcome
- 12:05: Status on the FAUPE project
  - WP 1 Plant-Phenomic infrastructure
  - WP 2 Genomics
  - WP 3 Validation
- 12.45 How can genomic selection be use in ryegrass breeding? 2 x 10 min presentation by Christian Sig Jensen (DLF) and Torben Asp (Aarhus University) and 25 min discussion
- 13.25 How can physiological phenotyping be used in breeding? 2 x 10 min presentation by Jens Kristian Olsen (LKF Vandel) and Thomas Roitsch (Copenhagen University) and 25 min discussion
- 14.05 How can phenomic selection be used in breeding? 2 x 10 min presentation by Rasmus Hjortshøj (Sejet) and Svend Christensen (UCPH)

- 14:45 Coffee in the new greenhouse facilities, and demonstration of new methods for monitoring root growth.
- 15:15 RadiMax, a new project to investigate root development, Christian Sig Jensen (DLF).
- 15:45-16.15 Visit to the field with demonstration of root screening and phenotyping

# The goal of FAUPE

- Development of new, fast and efficient methods for screening and selection for NUE, RUE, WUE, drought and disease resistance
- 2) new software protocols for measuring, storing and analysing big genomic and phenomic data

# FAUPE

- Faster breeding for complex traits
  - WP1: Plant phenomic infrastructure (Svend Christensen, KU)
    - Phenotyping, canopy and roots
  - WP2: Genomics (Torben Asp, AU)
    - Database
    - Analysis of pheno- and genotyping data
  - WP3: Validation (Svend Christensen, KU)
    - Field validation of methods for screening