

Using data to make advances in Danish agriculture

Julie Therese Christensen

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STØTET AF
Promilleafgiftsfonden for landbrug

SEGES
INNOVATION

Agenda

- SEGES Innovation
- Danish Agricultural data
- Digital solutions for farmers
- The yield prognosis in winter wheat

SEGES Innovation

- SEGES Innovation is a private, independent, non-profit research and development organization
- The leading agricultural knowledge and innovation centre in Denmark

Data: what we have access to

SEGES

Danish Field database (field level)

- Sowing/harvest date
- Variety
- Amount of fertilizer/manure/ pesticides used
- Date of application
- Crop type
- Climate emission (CO2 eq)

The danish cattle database

- Milk yield, kg EKM/cow/day
- Fed amount of roughage, kg DM
- Yield (FEN/ha)
- Cell number
- Quality of feed

Soil database

- Soil pH, TN, TP, OM, Texture, K, Ca, CU

Field trials (plot level)

- Yield
- Protein %
- Dry matter %
- Stach content
- ... and much more

Public data

Earth Observations

- Sentinel 2 (10x10m to 60x60m)
- Sentinel 1 (5x5 to 20x40m)
- LandSat8 (15x15m to 100x100m)

Danish Elevation Model (0,4 m)

Field polygons with crop type (Field level)

Soil type (30x30 m)

Wheater measurements (DMI) (10x10 km)

Digital programs related to plant production



FarmTracking



Biogas Online



SmartSlurry



Mark Online



Vandregnskab Online



CropManager



KemiTjek

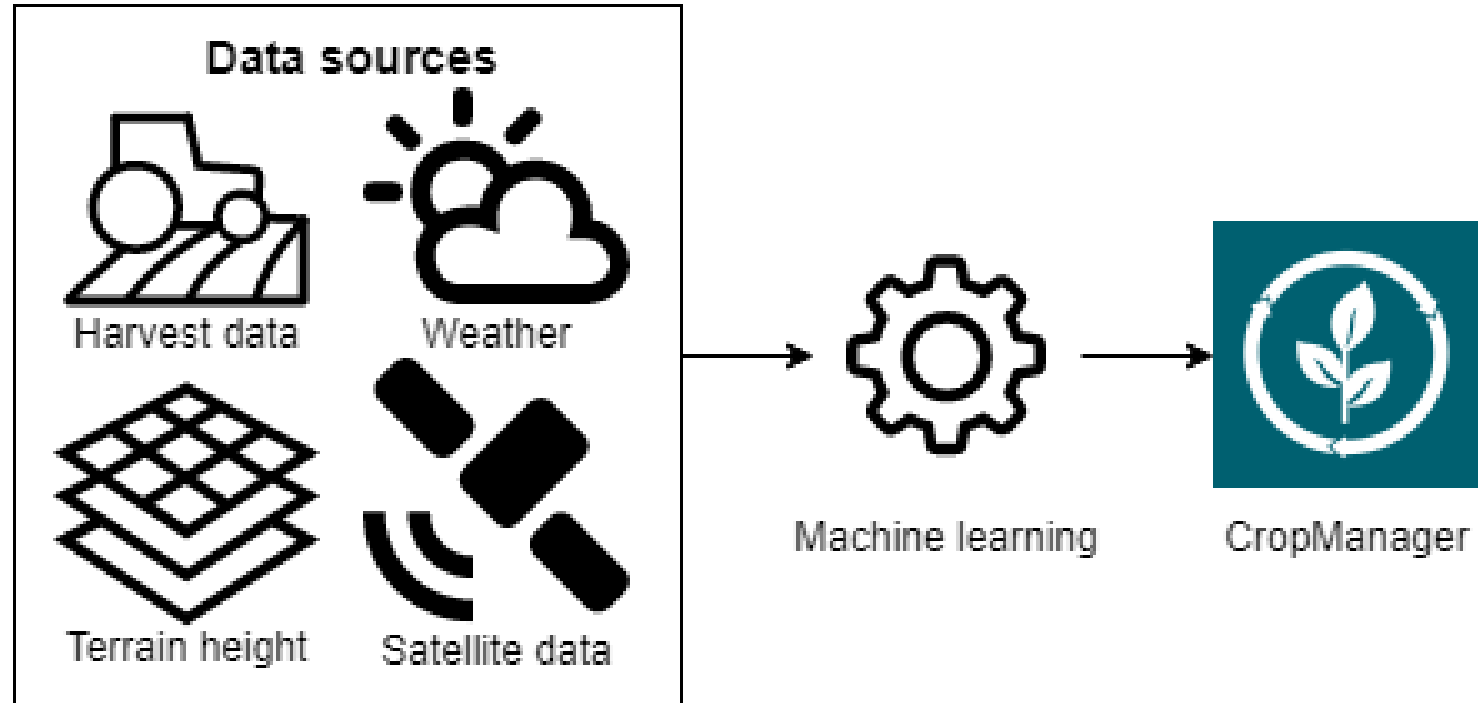


FarmTime



Planteværn Online

Winter wheat yield prognosis



Yield prognosis in CropManager



How well does prognosis work?



Take home

- We have large amounts of agricultural data stored at SEGES
- These data have a large potential:
 - Development of new models to improve management: lower environmental impact and higher profits for the farmers
- Collaborations with companies and universities