



# Introduction to SEGES Innovation Digital Crops

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# Meet SEGES Innovation

We are a private, independent, non-profit research and development organisation

We are the leading agricultural knowledge and innovation centre in Denmark

We collect data and service Danish agriculture as market leader

We offer sustainable solutions for the agriculture and food sector of tomorrow



**We connect science to value in practice!**



**SEGES**  
INNOVATION





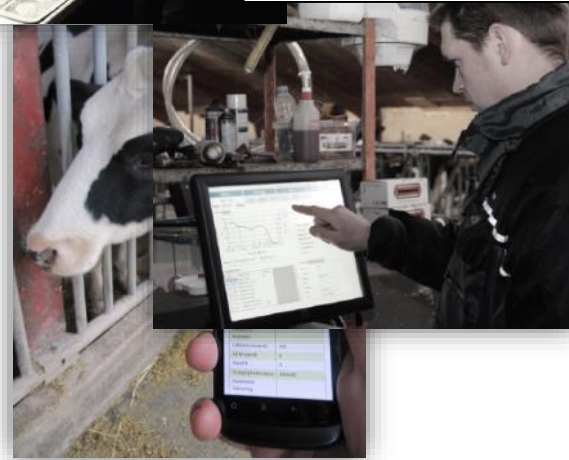
SEGES Innovation P/S is part of Agro Food Park in Aarhus  
SEGES Innovation P/S has 530 employees



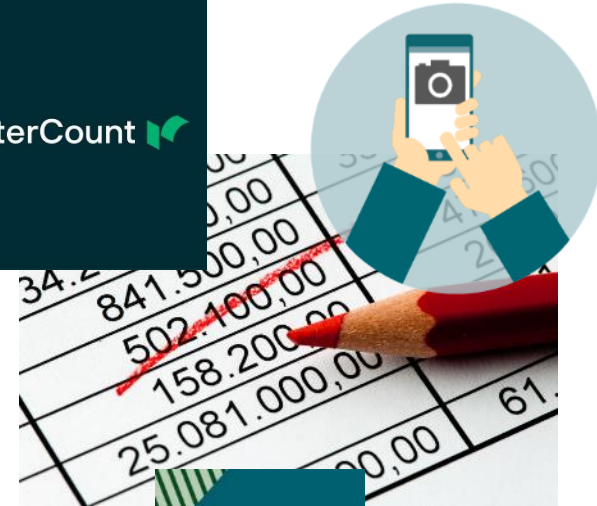
# Introduction to SEGES Software – converting data and agricultural knowledge to digital solutions



**Crops**



**Livestock**



**Accounting & Finance**

# The Crop Portfolio



## FarmTracking

- The fieldworker



## CropManager

- The farm manager and the owner



## Mark Online

- The plant advisers
- The advanced farmer



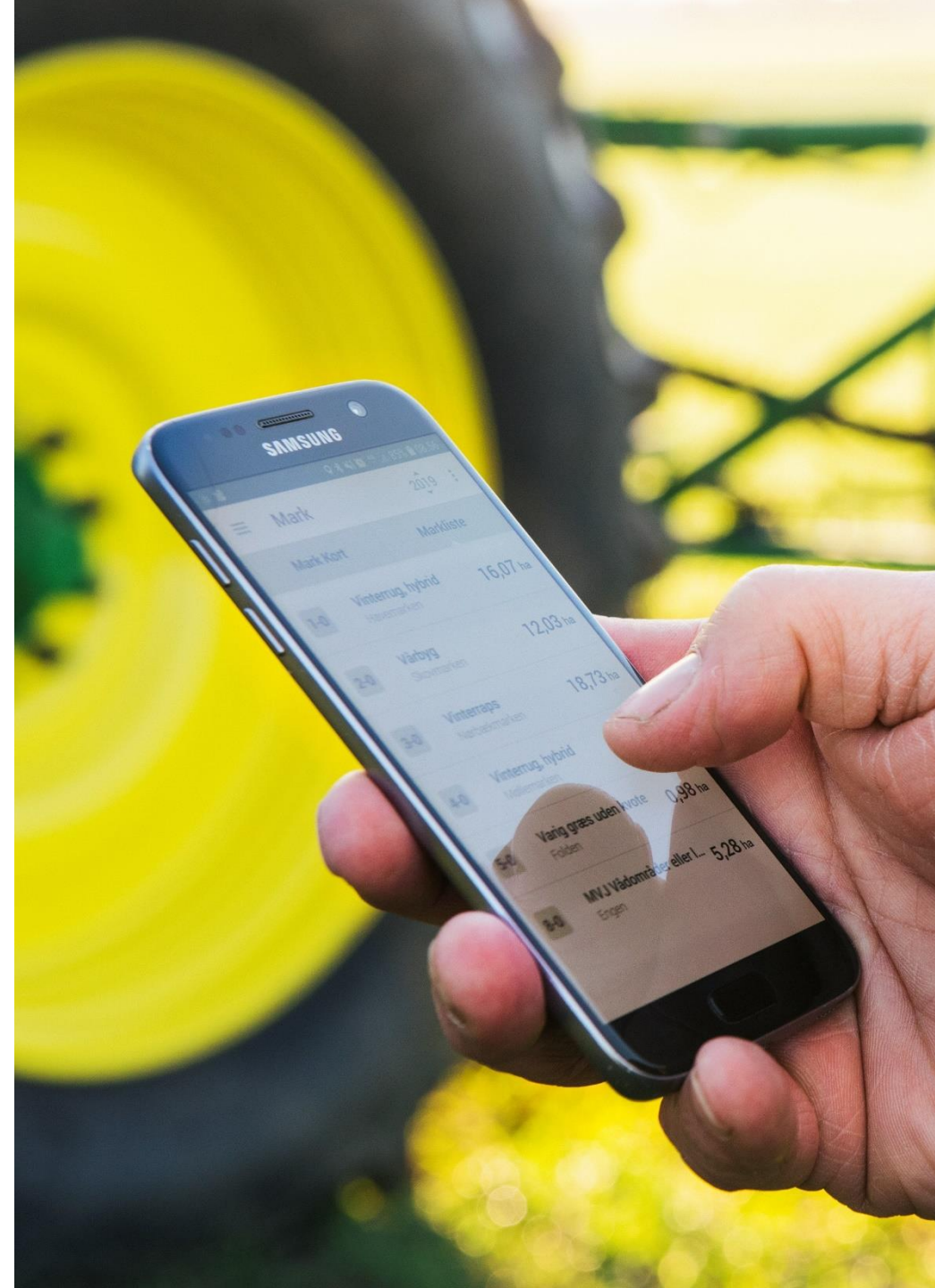
KemiTjek



FarmTime

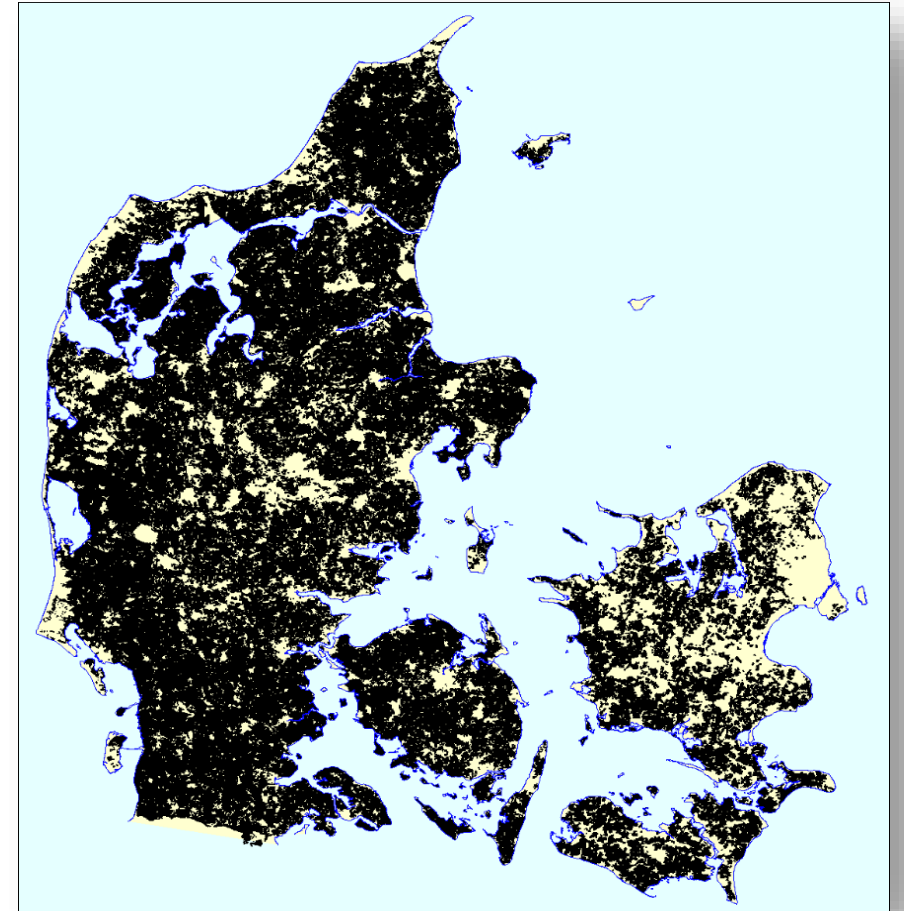


Biogas Online



# Adoption in Denmark

- FarmTracking application coverage 1,65 mill Hectares
  - 5000 daily and 10000 monthly users
  - Documentation
- KemiTjek
  - 4000 subscribers
- Precision farming is moving forward with 300.000 hectares
  - Accelerated by the precision farming legislation
- Crop advisers uses Mark Online covering 2,1 mill. Hectares
  - 500 Advisors uses the platform daily to help the farmer apply for EU subsidies and report to public authorities
  - Field, crop and fertilizer planning

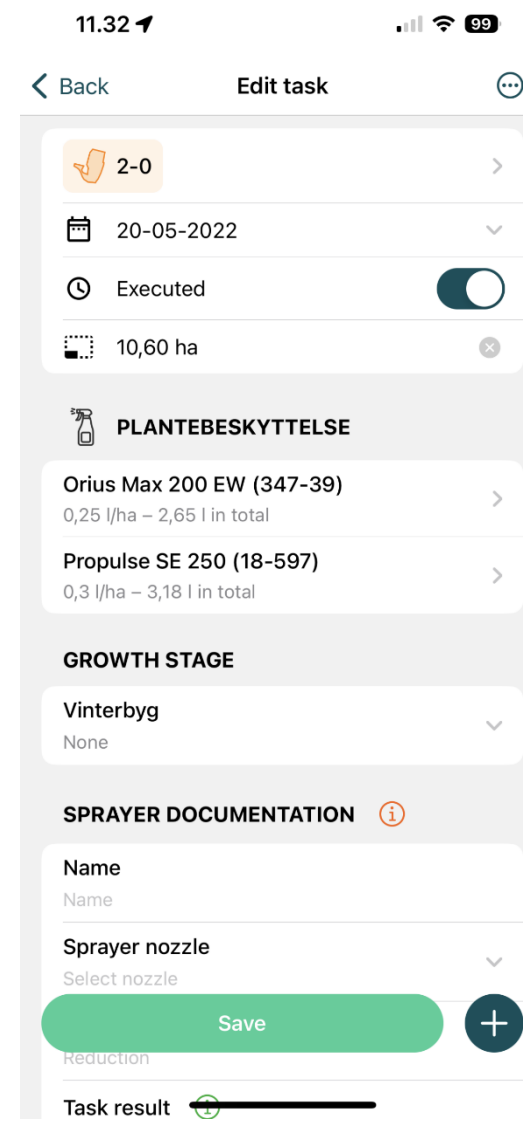
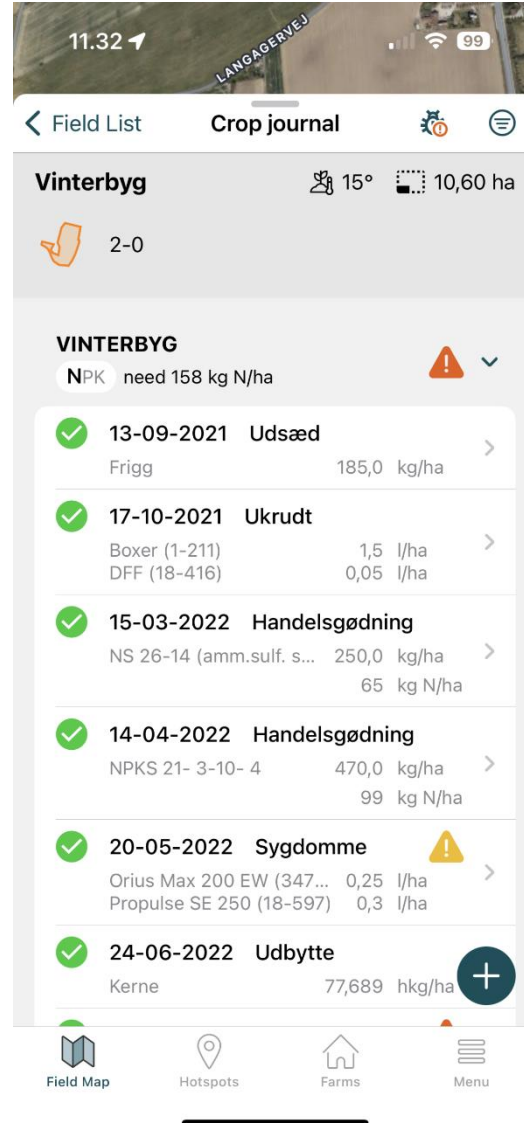
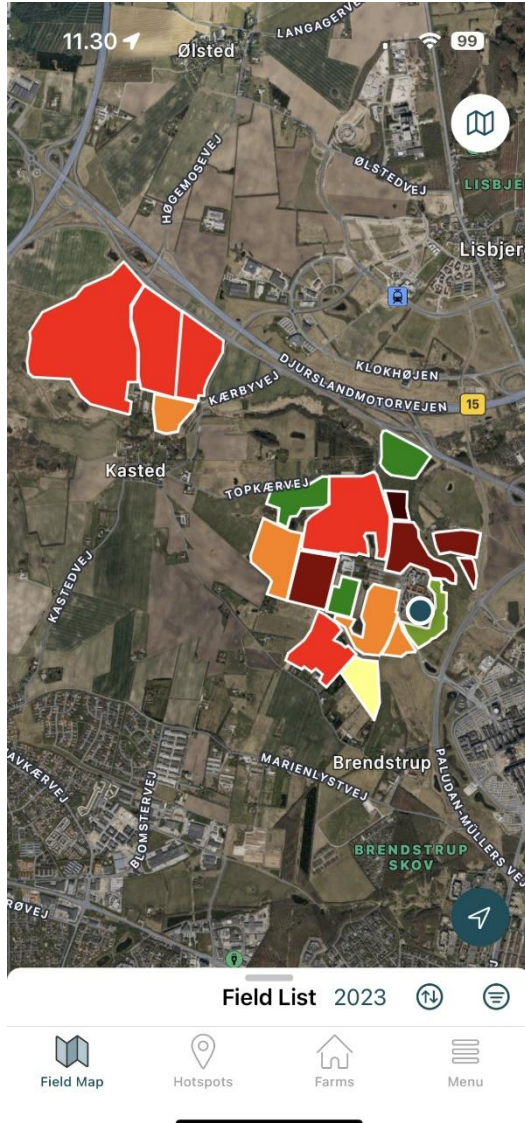




# FarmTracking

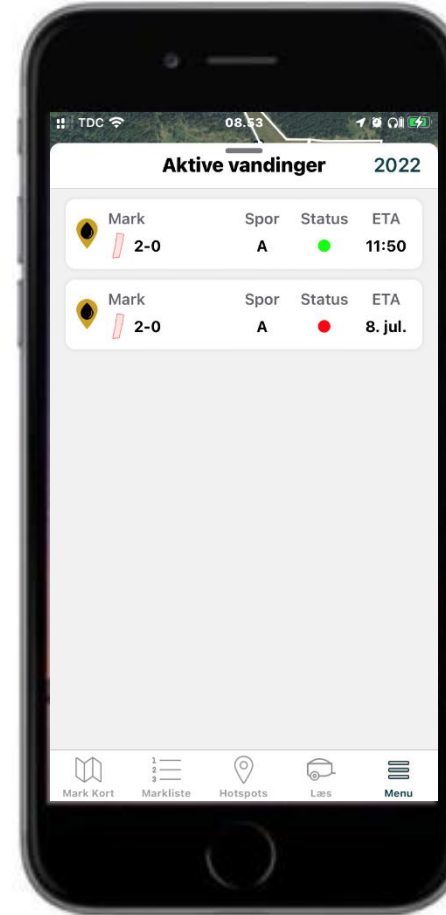
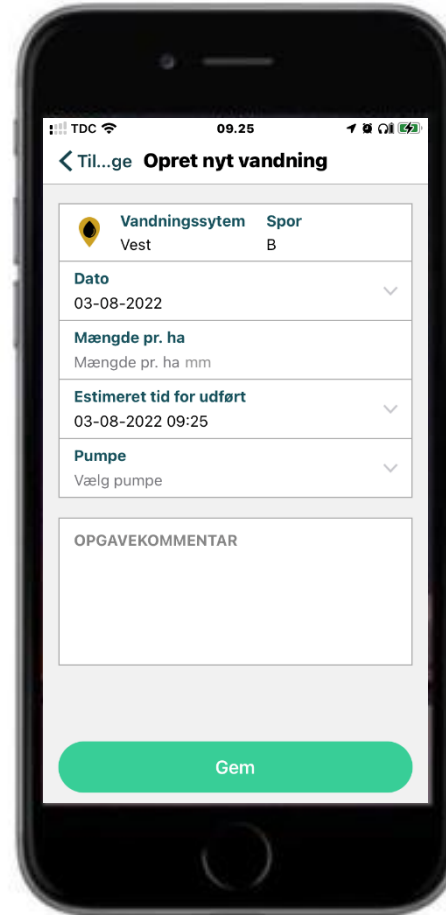
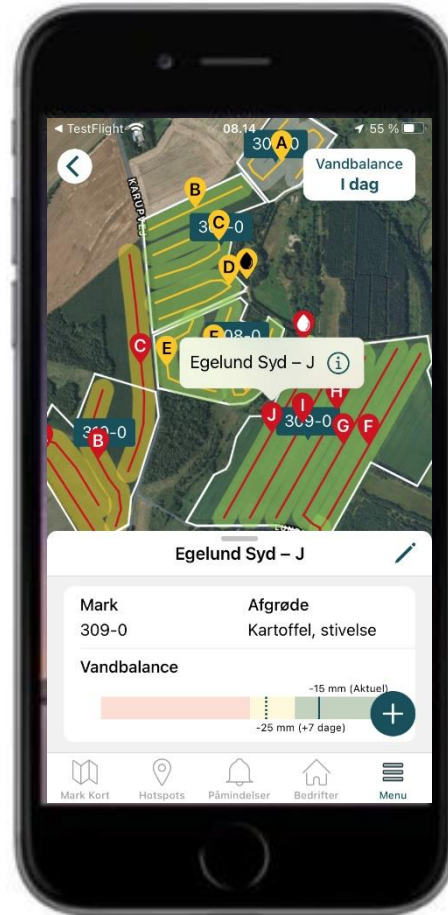


# Registrations directly from the field





# FarmTracking Premium





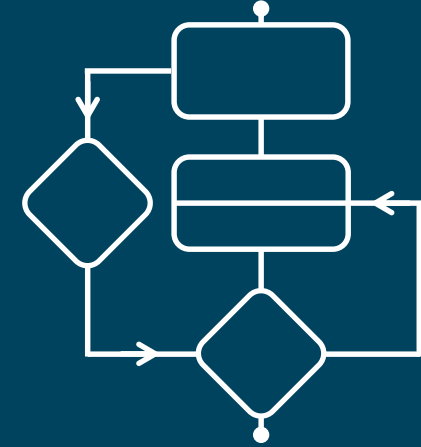
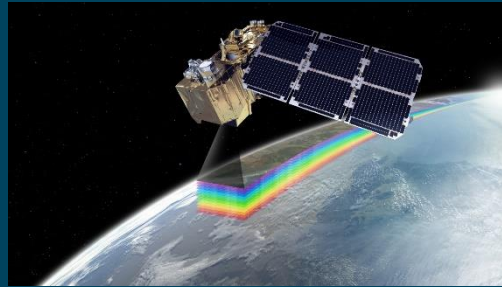


# CropManager

The tool for the manager



# Position-based applications

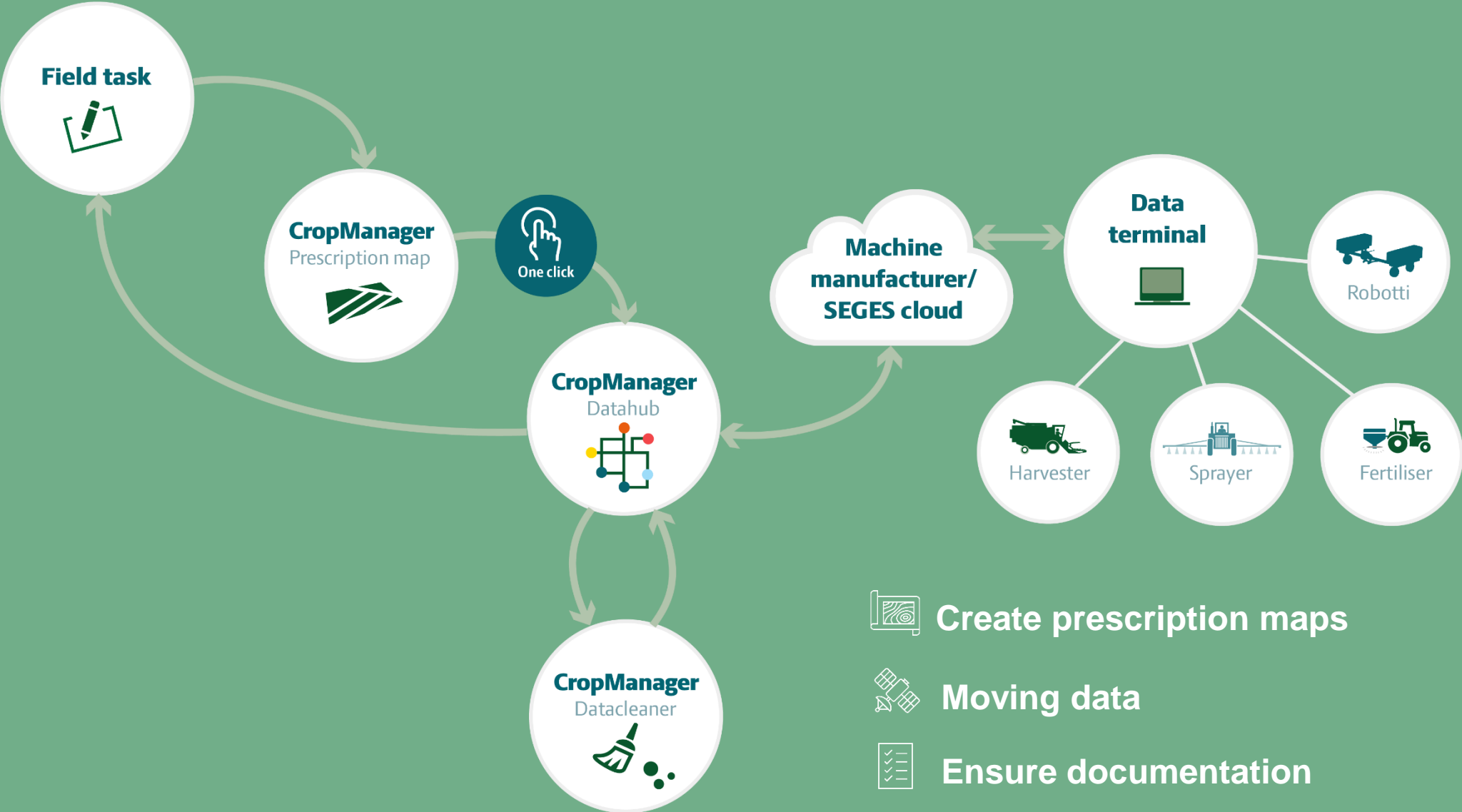


## MODEL INPUT

- Soil samples
- Yield data
- "As applied" data
- Satellite and drone images
- 50 Years of Field trails



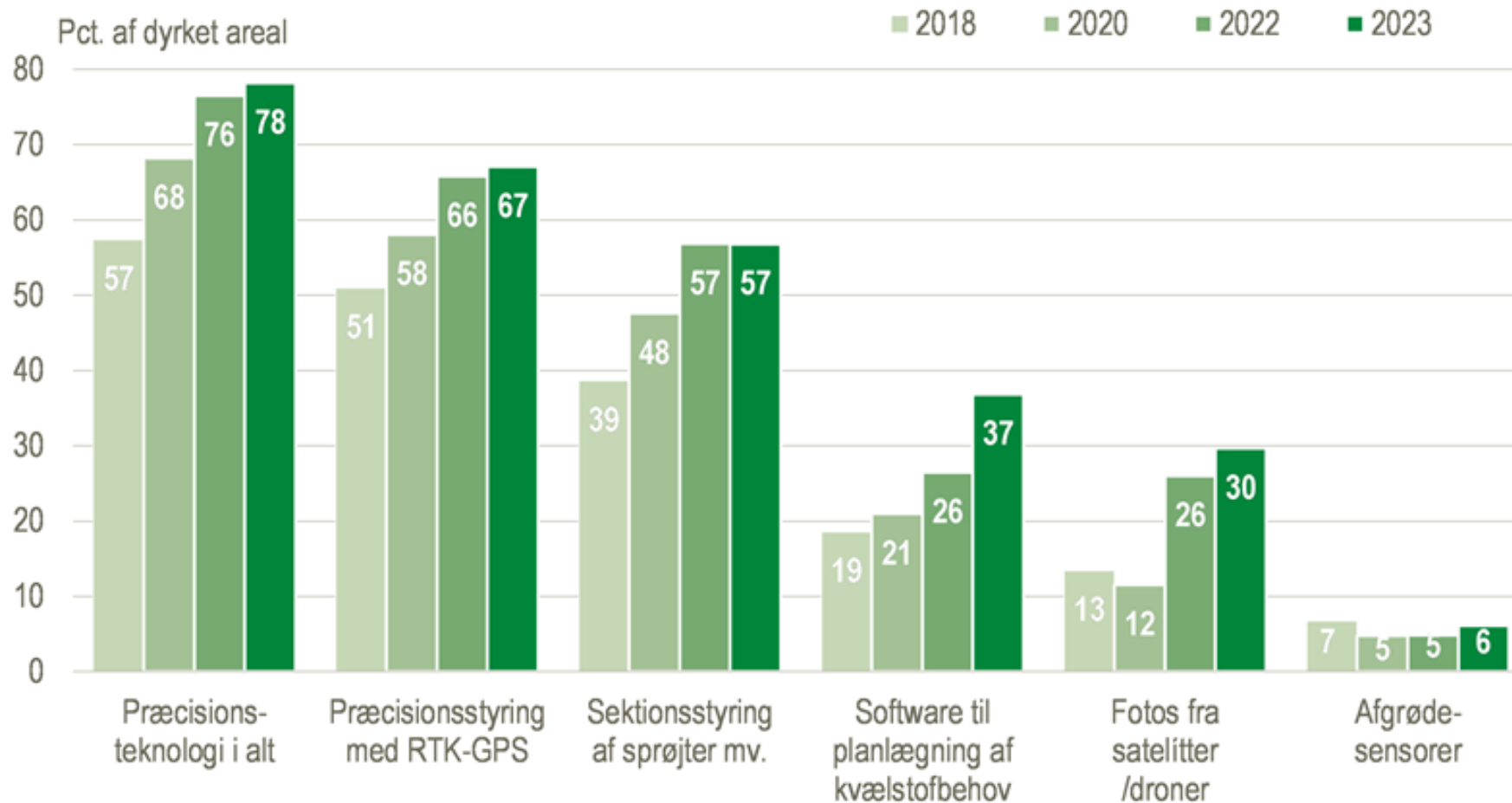
# Reusable infrastructure to communicate with machinery





# How are precision farming implemented in Denmark?

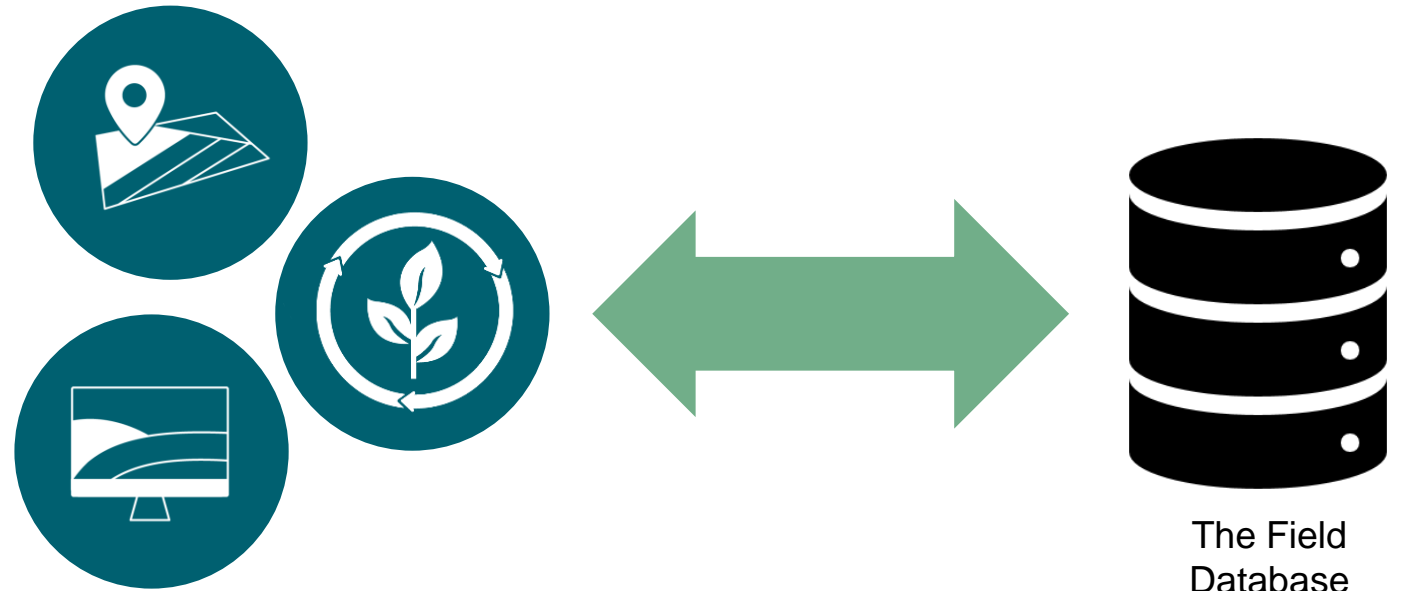
## Præcisionslandbrug udbredelse efter areal



Anm.: Omfatter både egen anvendelse og anvendelse via konsulenter, driftsledere, maskinstationer o.l. Anvendelsen behøver ikke omfatte alle marker. RTK-GPS: GPS med en nøjagtighed på 1-2 cm ved hjælp af landbaserede signalstationer.

# The field database

- One database for all application
- Protocols to communication with third parties

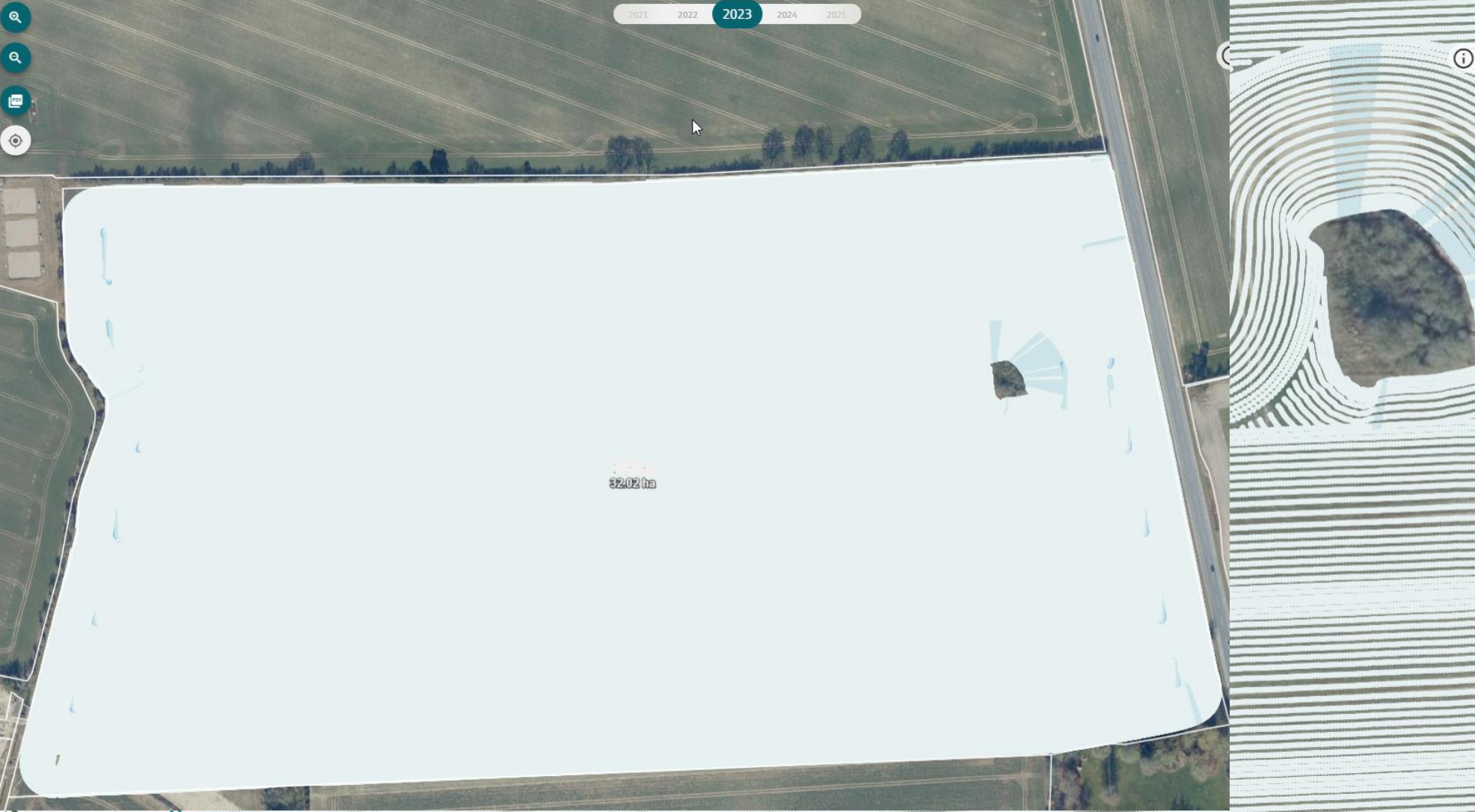


The Field Database

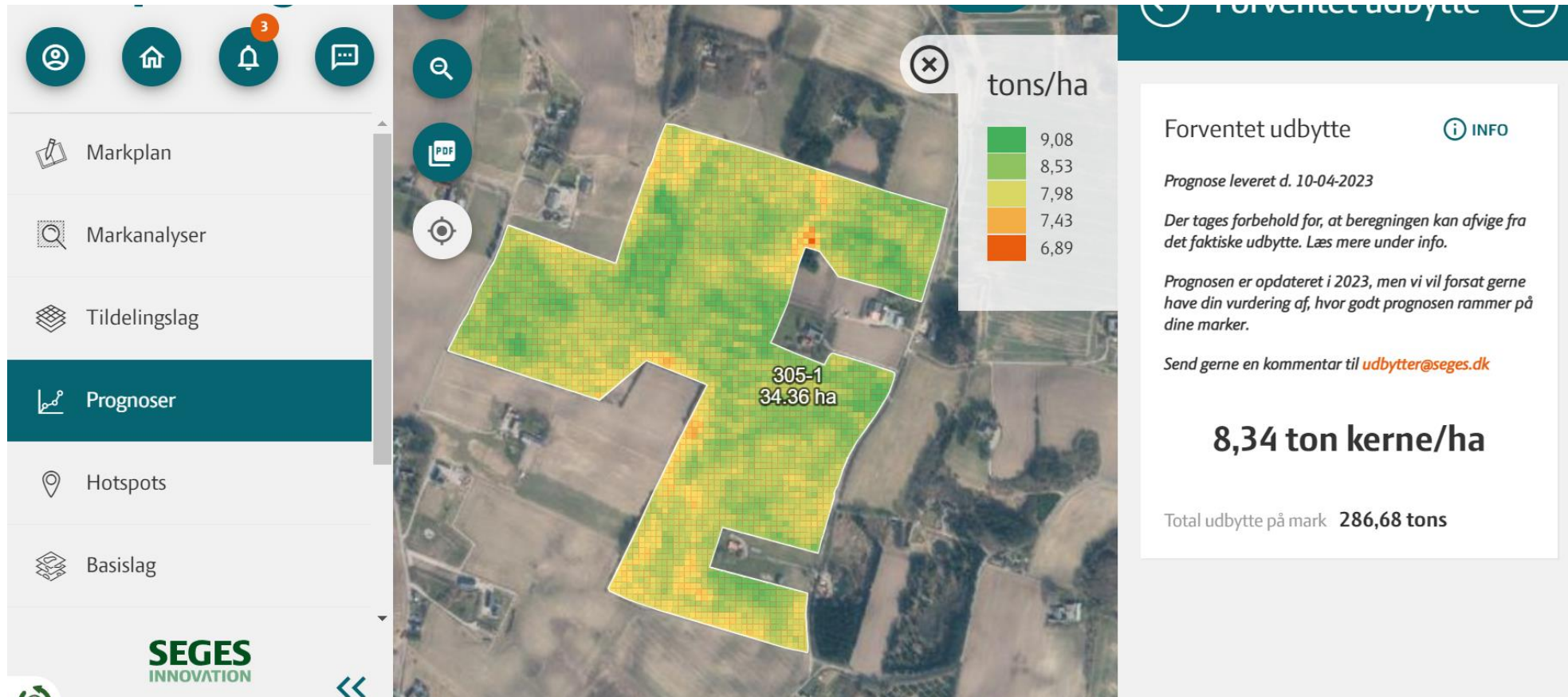




# Data, Data and more data

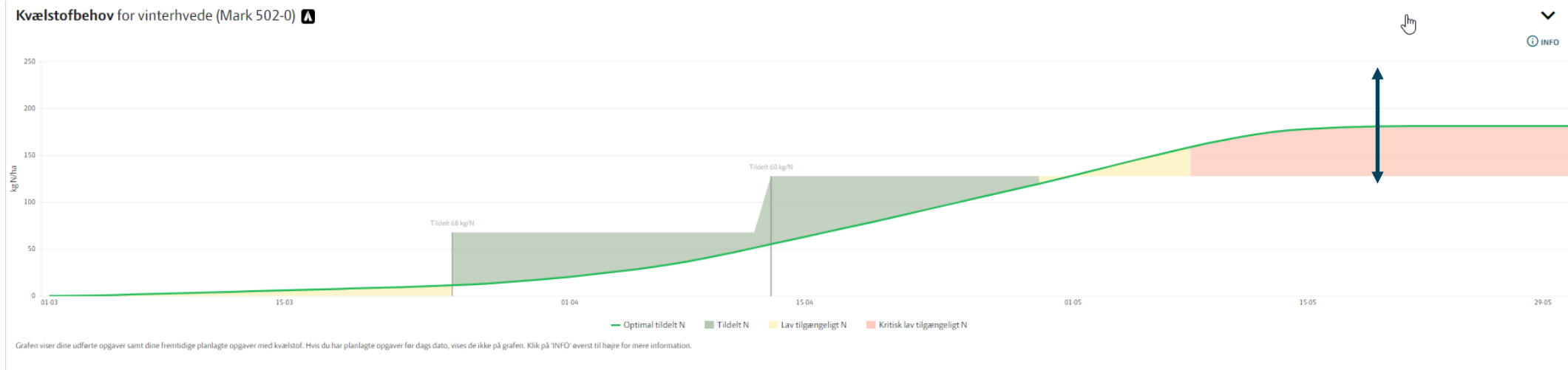


# How we use data today – Example 1: Yield prediction





# How we use data today – Example 2: Dynamic fertilizer tool



## Satellitberegnet N-behov for 3. tildeling

### Vinterhvede

Kvælstofpris  Kr.pr.kg N  
 Afgrødepris  Kr.pr.hkg  
 Proteinpris  Kr. pr. pct. prot.

GENBEREGN

Vil du overskrive 'Gældende N-behov' med det 'Nyeste beregnede N-behov' på alle marker?

OVERSKRIV GÆLDENDE N-BEHOV

Marker	Forventet udbytte	Nyeste beregnede N-behov		Gældende N-behov
9-0	75	108	?	152
10-0	75	108	?	152
501-0	85	128	?	180
502-0	85	128	?	180
503-0	85	128	?	180

GEM

AFBRYD



# TraceIT

## Traceability and documentation



# What is next – TracelT

- New platform targeted the commodity traders and food producers
- TracelT handles the Transfer activity data and processed data from “farm-to-fork”
- Generating a data pull to farmers, resulting in even more data to be transferred
- Data can be transferred from multiple farm management tools



Traceability and  
transparency



The climate agenda



The food producers  
need for optimizing  
their raw materials

# Thanks

**SEGES**  
INNOVATION



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