



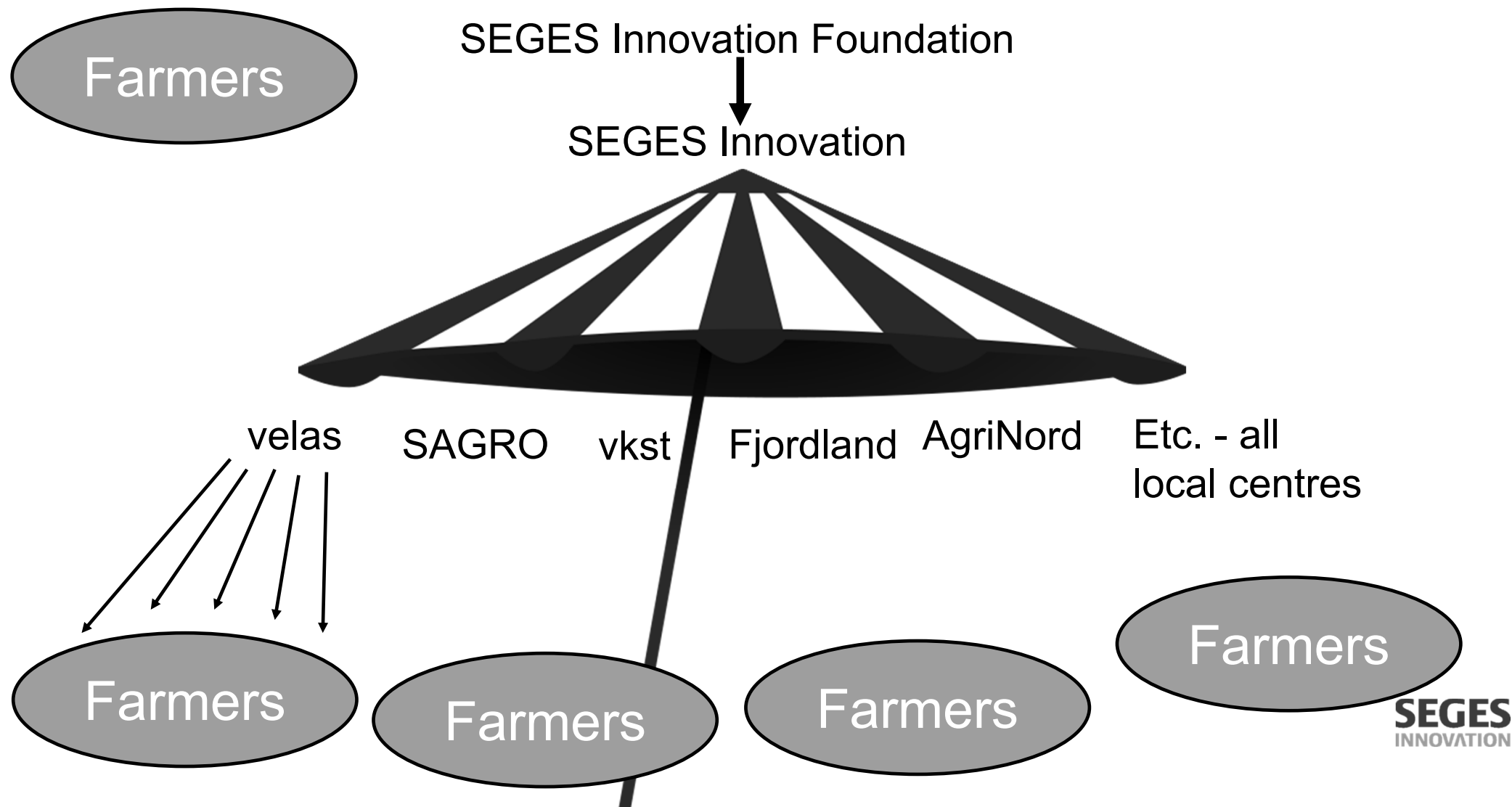
Danish case studies showing how digital solutions support sustainable agriculture practices

Jens Erik Jensen, senior specialist

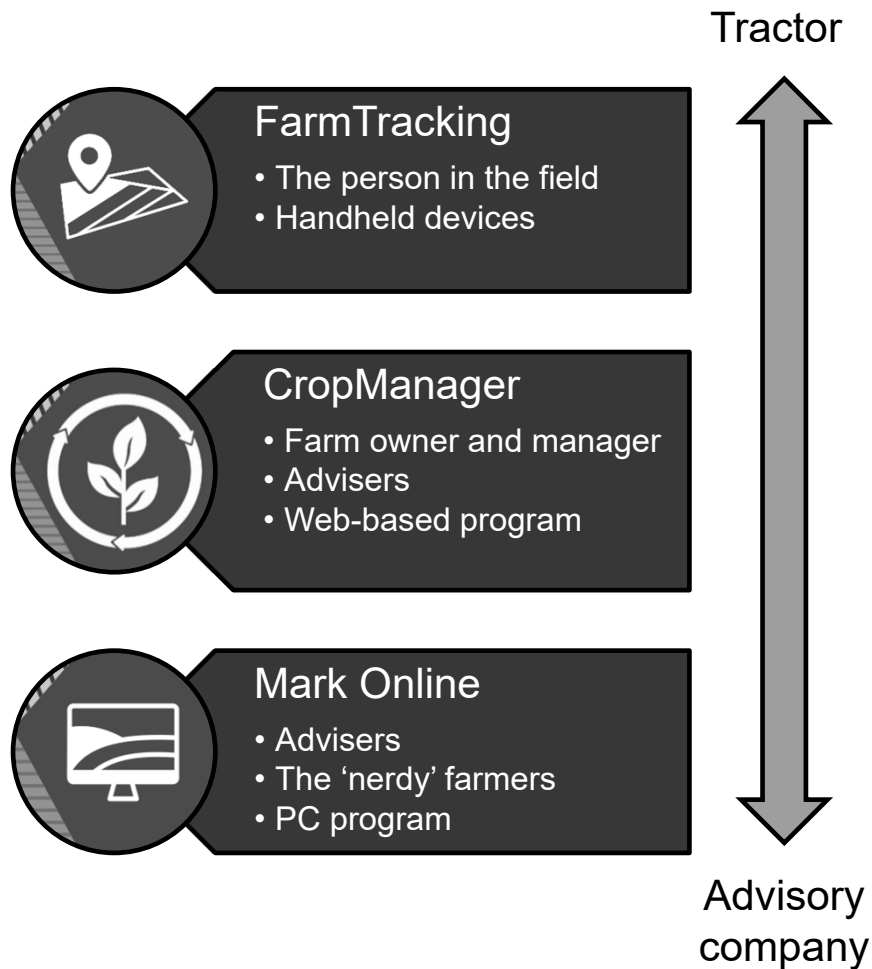
CropLife Conference Brussels 7 March 2023

SEGES
INNOVATION

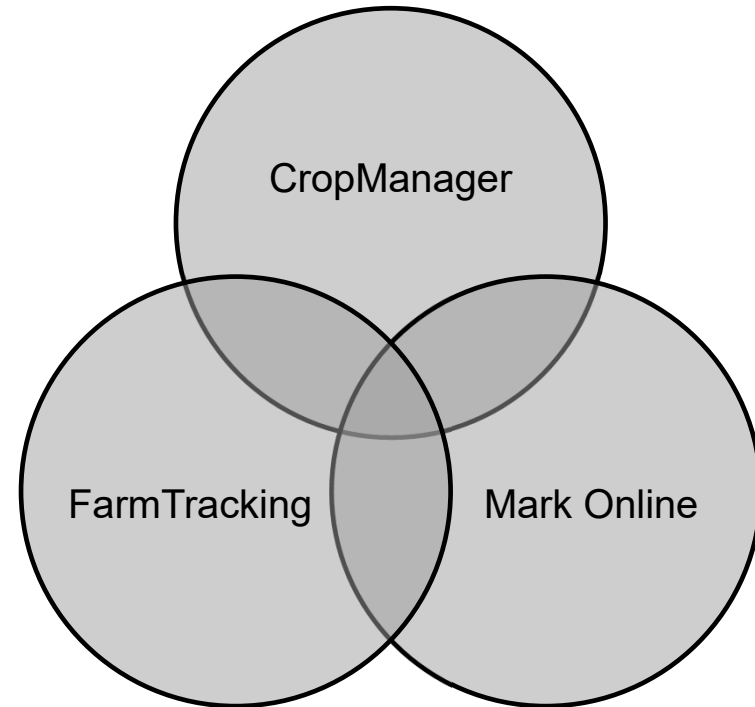
Two-layer advisory system



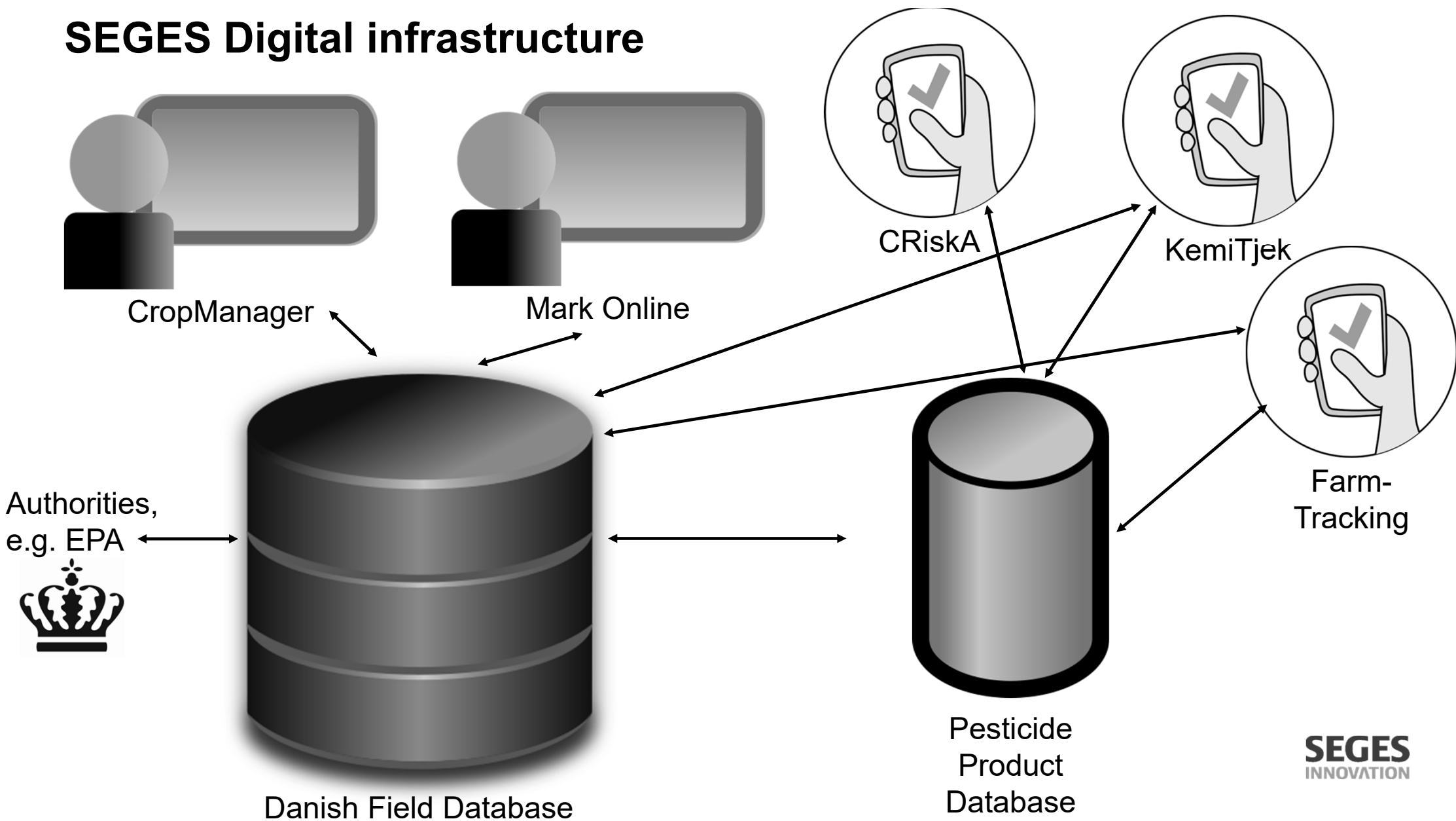
Main plant digital apps / programs



All programs access the same database, i.e. Danish Field Database

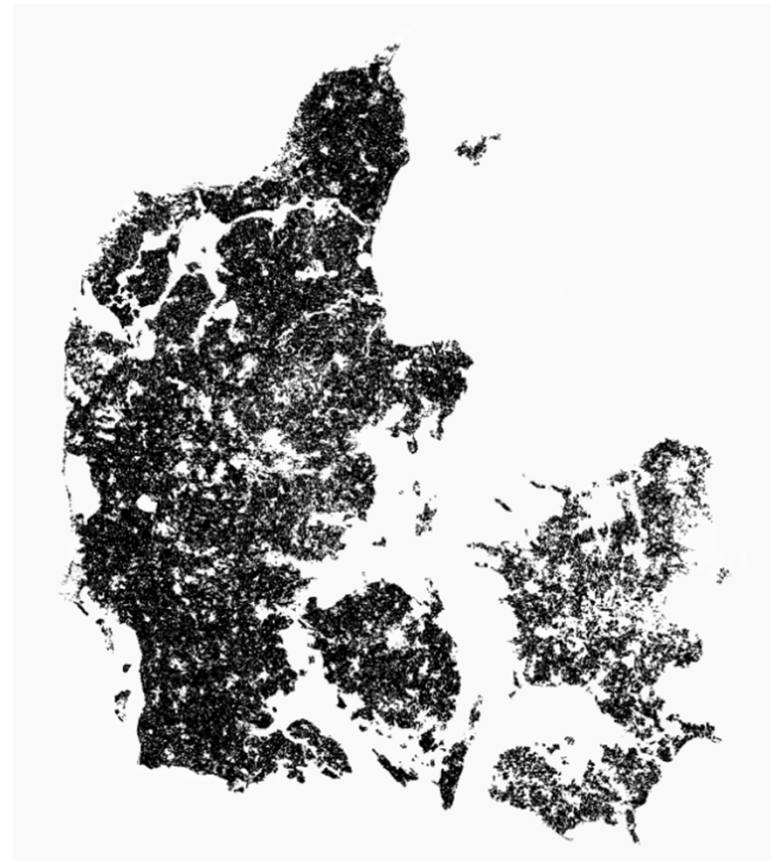
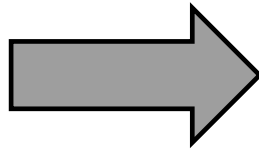


SEGES Digital infrastructure



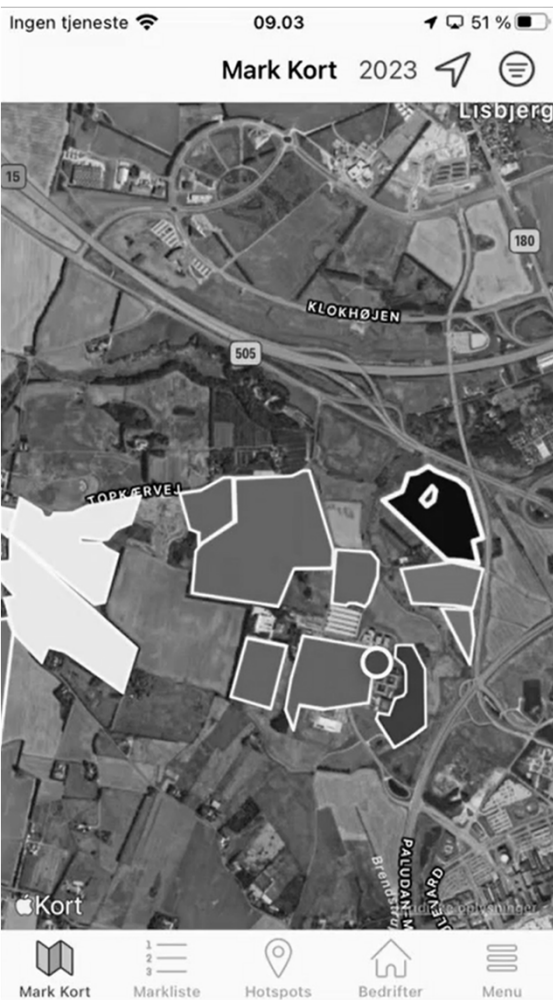
Great data coverage in Denmark

Today: 88% of the farmed land is in the Danish Field Database
often possible to track field management history 20+ years back

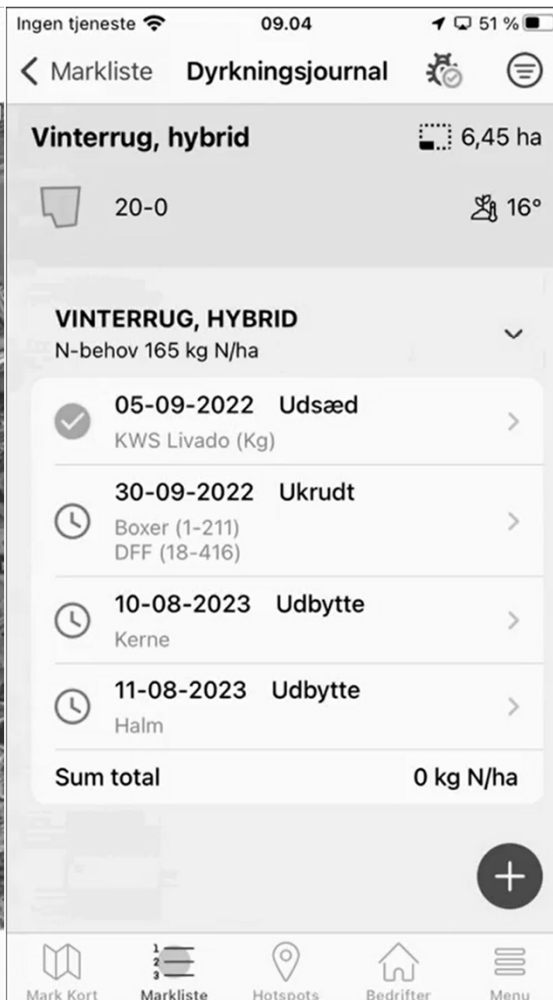


FarmTracking – pesticide record keeping

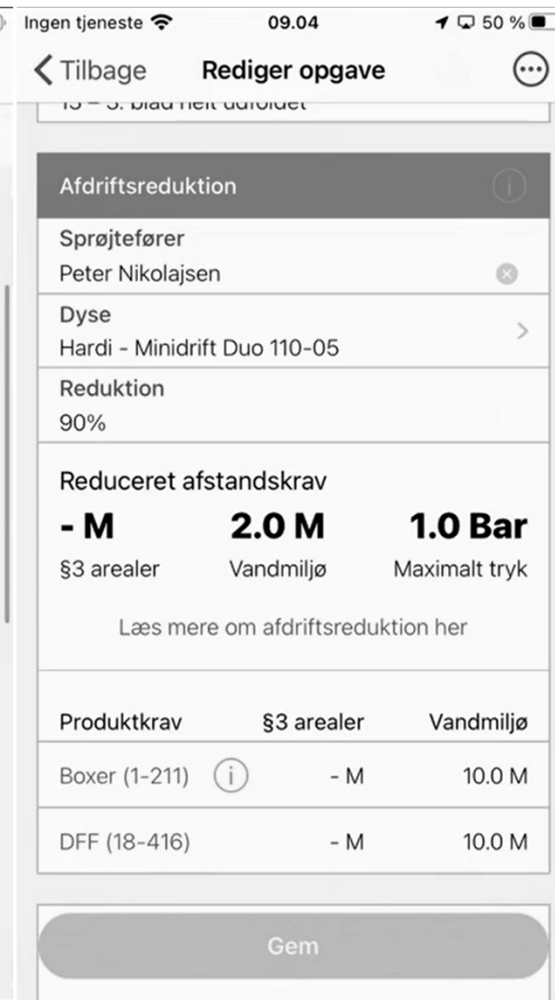
Choose field



Overview planned operations



Edit spraying task

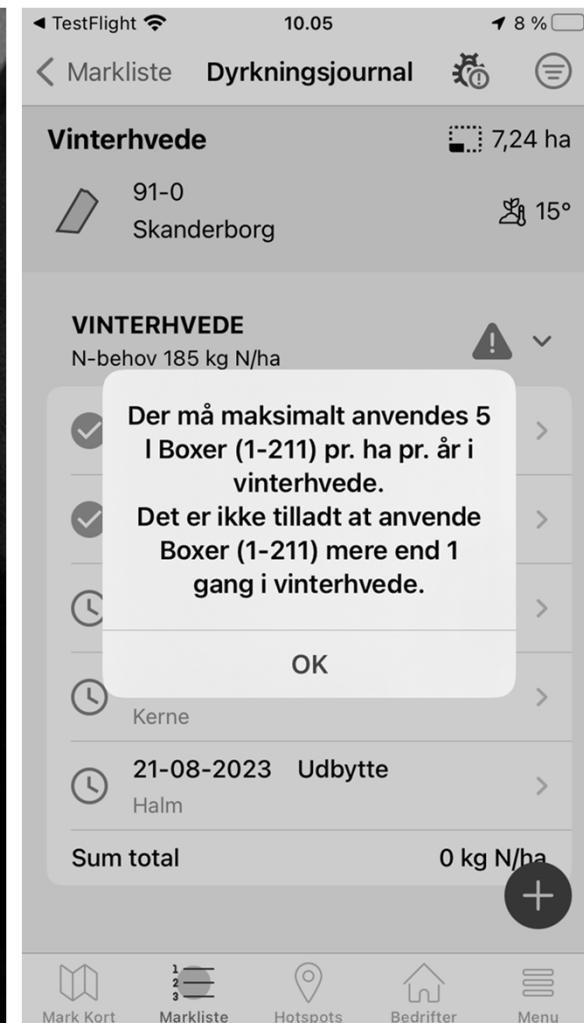


'Pesticide Check' in FarmTracking and Mark Online

Digital label info from Pesticide Database



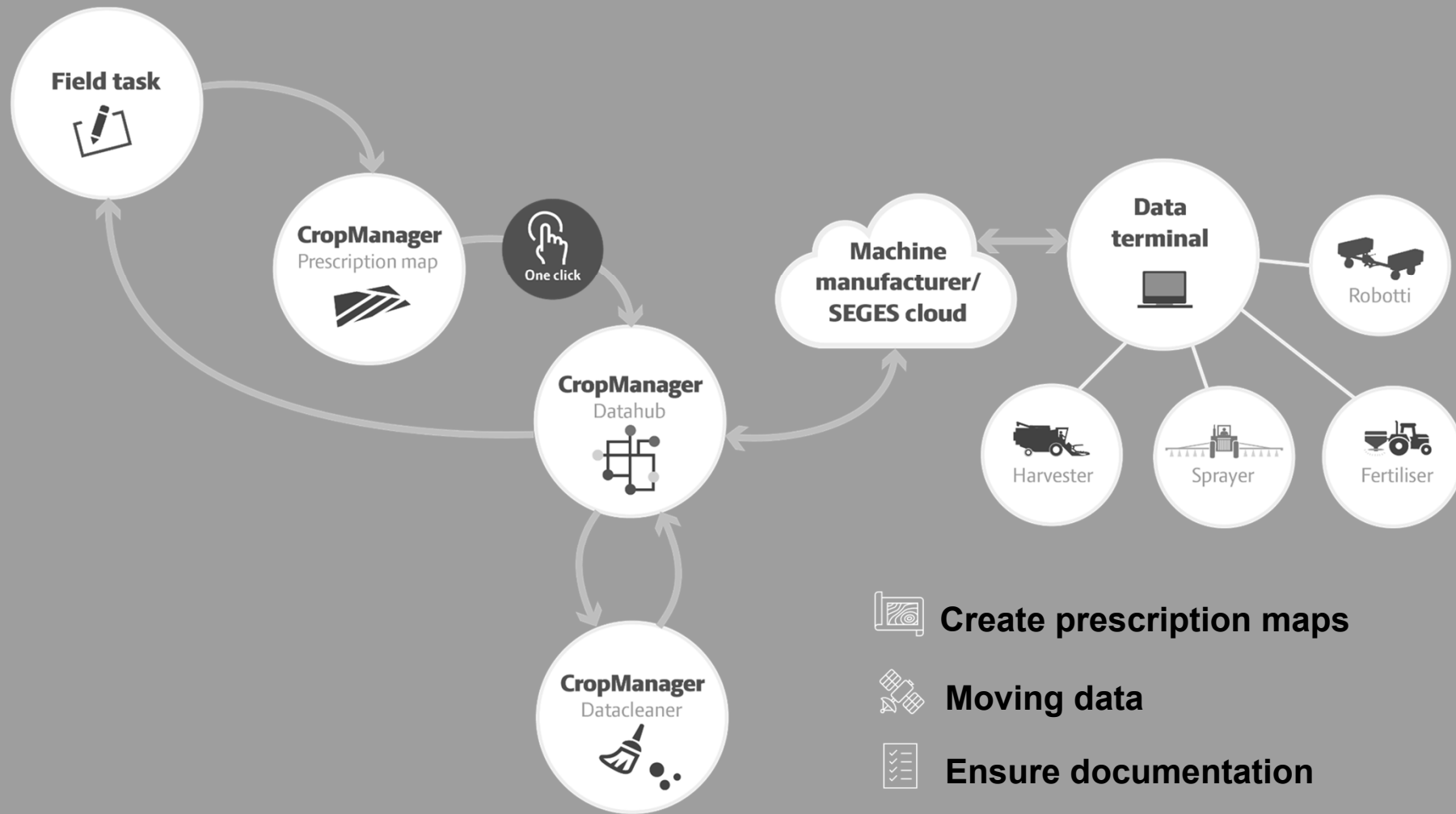
Test compliance before spraying starts



Details
on slide
no. 15

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CropManager – supporting precision farming





Lodging risk prognosis



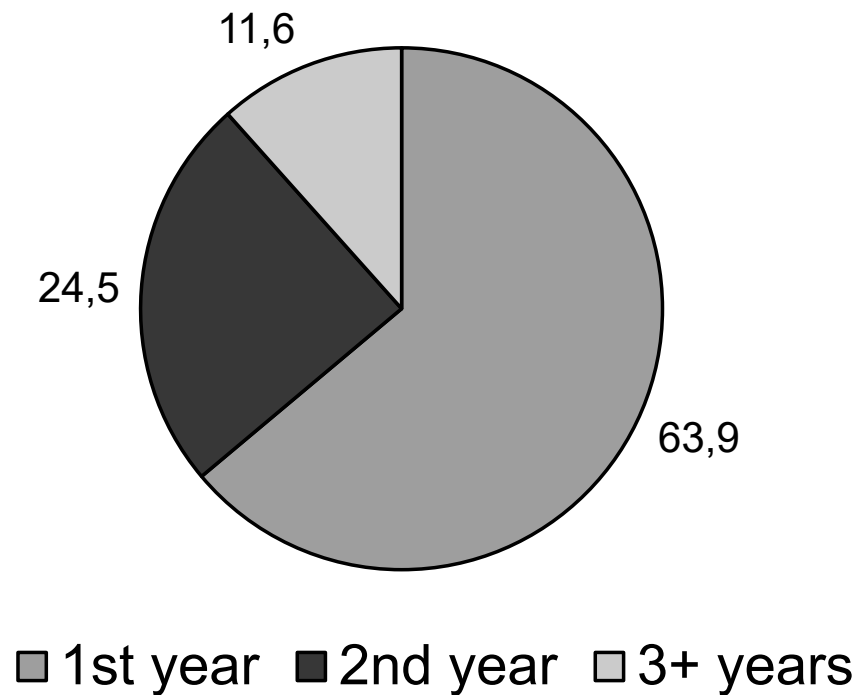
KemiTjek

- App based on an idea from a farmer
- Barcode scanner + data from pesticide database
- Clear information on current registration status
- High turnover in registrations in Denmark – even more value to this app
- When scanning products, they may be added directly to electronic storage in Mark Online

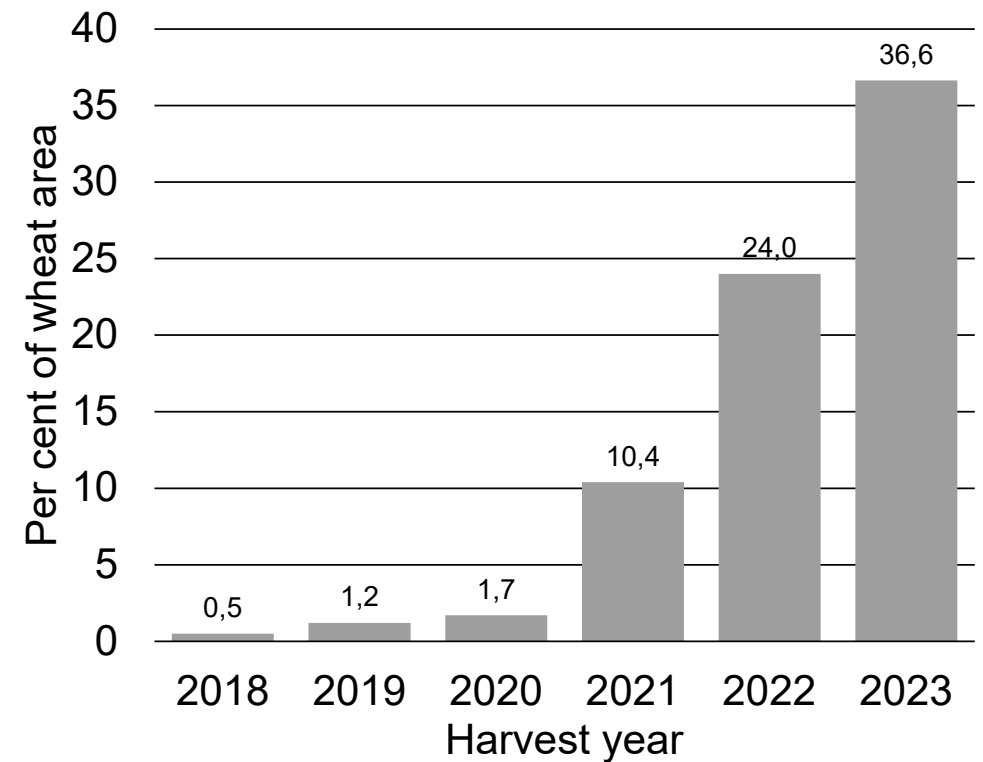


Data mining in Danish Field Database, examples

Per cent wheat in rotation

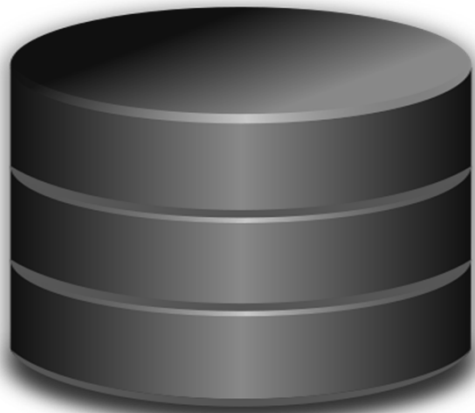


Use of variety mixtures in wheat



Data ownership and management principles

- The farmer/grower and the farm/enterprise is in focus
- Farmers/growers own the data
- Farmers/growers can authorize advisers and other stakeholders around the farm to access data
- SEGES may use data for statistics / reporting of aggregated data
- TRUST and RESPONSIBLE data use key to success!



Danish Field Database



Slides with additional information

‘Pesticide Check’ in FarmTracking and Mark Online

- Product registered in crop
- Max. dose per treatment in crop
- Max. number of treatments in crop
- Max. dose per cropping year
- Time between repeated treatments, e.g. potato fungicides
- Restrictions across products with similar active ingredients, e.g. triazole fungicides and sulfonylurea herbicides
- Application season and crop growth stages (BBCH)
- Pre-harvest intervals
- Distance to water courses / surface water
- Distance to natural areas
- Distance to roads, residential areas, institutions etc.
- Drift-reducing nozzles – reduced distance to vulnerable areas



Details regarding
‘Pesticide Check’
on slide no. 7

Where I work - SEGES Innovation!



Agro Food Park ~100 companies / institutions and ~1500 employees
SEGES Innovation biggest company with ~550 employees



An aerial, black and white photograph of a vast agricultural field. The field is divided into long, straight, parallel rows of furrows, creating a strong sense of perspective and rhythm. In the center of the image, a small tractor is visible, moving along one of the rows. The overall tone is professional and emphasizes the scale and organization of modern agriculture.

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

Thanks – get in touch if you need more

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