

Farming 4.0 delivers basic data for the future transport food chain

Klaus-Herbert Rolf

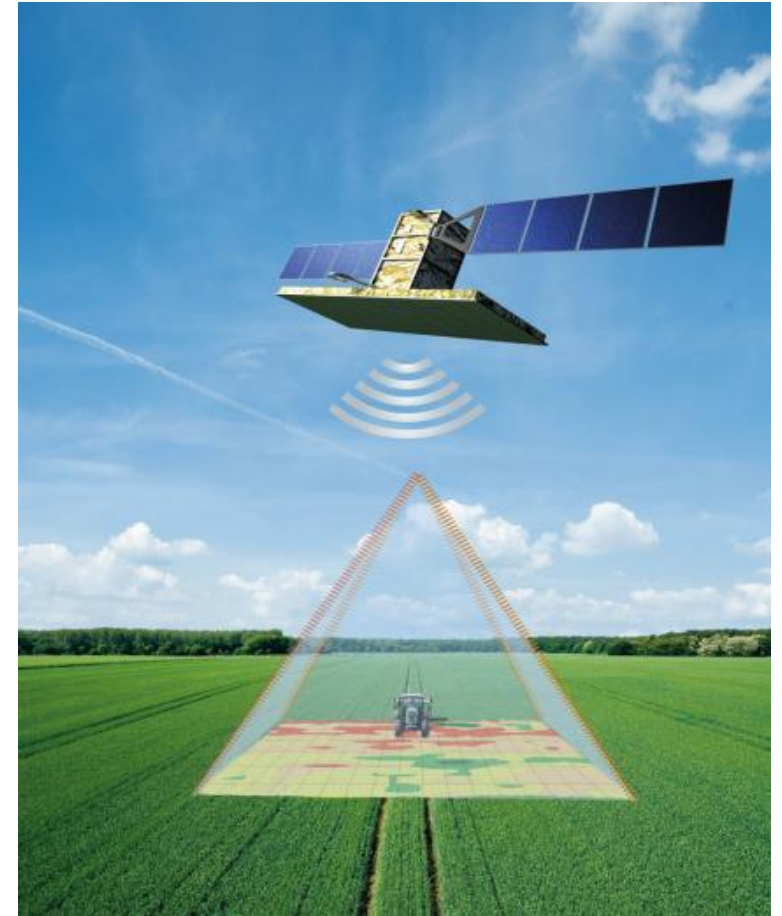
Washington, April, 10th 2018



Overview



- Passion for agriculture
- Digitization in agriculture
- Management farm data by software-based service
- Final remarks and future prospects



Passion for agriculture



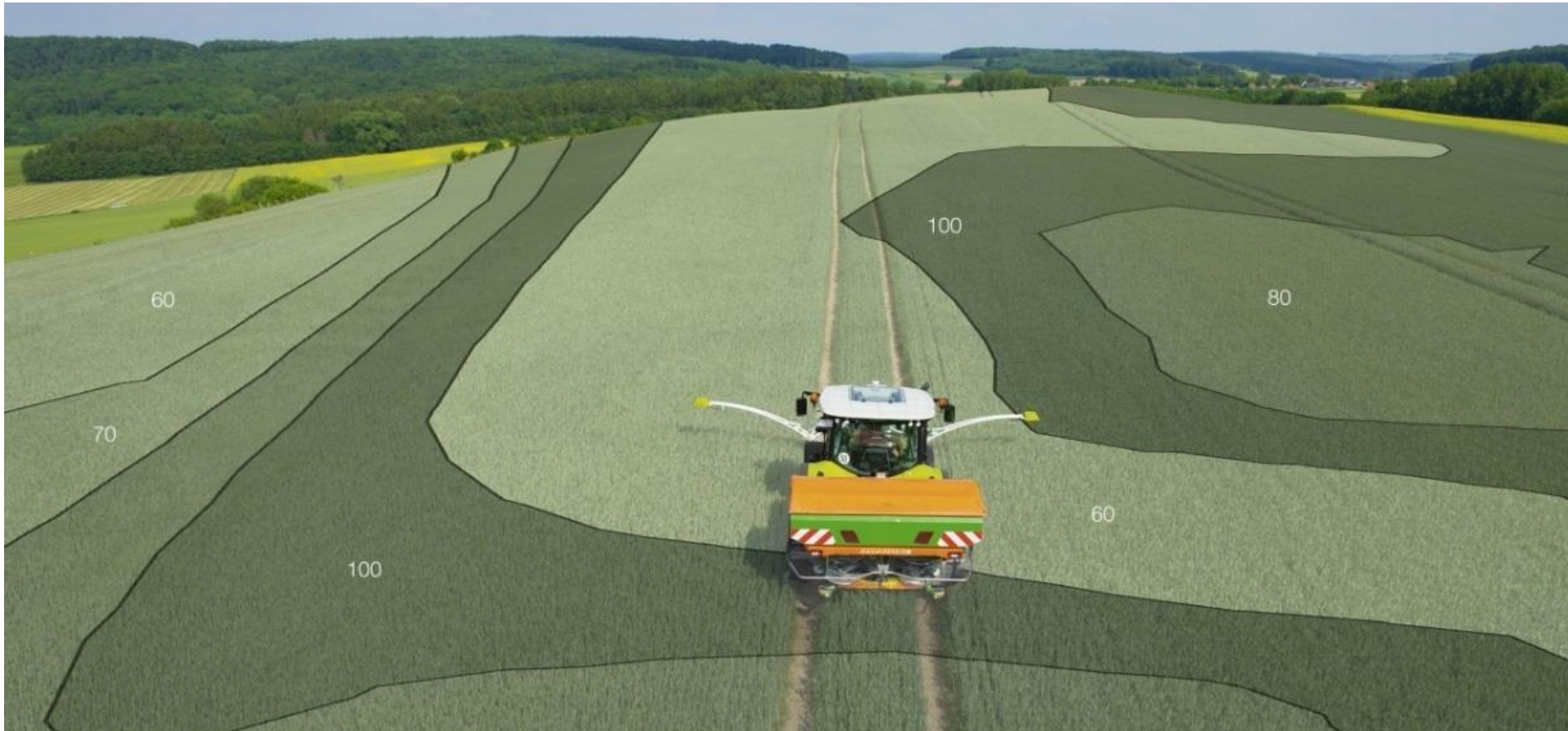
Technical challenge – Limitations



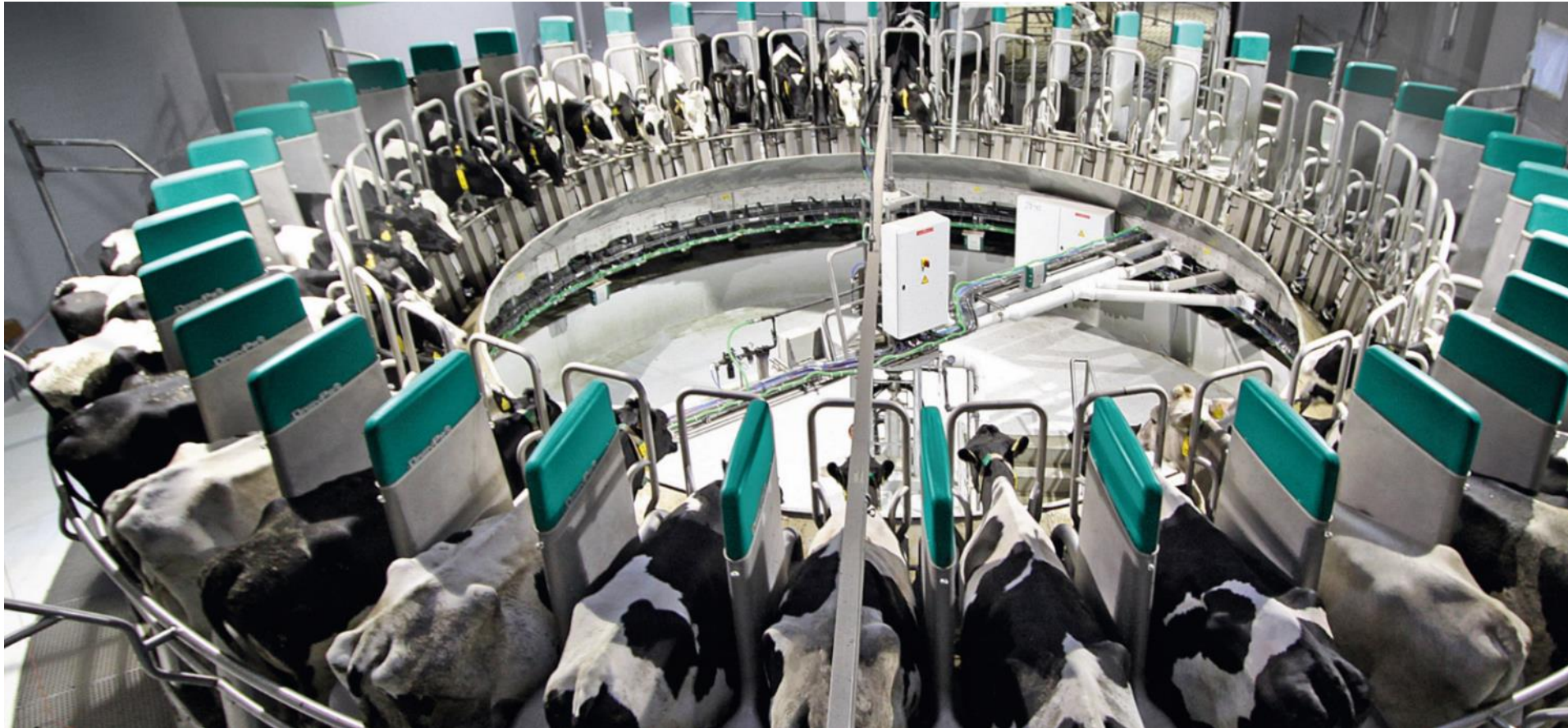
Social challenge – Transparency



Sensors – Reduce and optimize the input



Process of milking – Reduce pressure of work and foster animal health





The farm under control – connection between crop production and animal production



The screenshot shows the 365FarmNet dashboard. At the top, there is a navigation bar with the 365FarmNet logo, a home icon, and menu items: MANAGE, PLAN, DOCUMENT, ANALYZE, COMPONENTS. On the right side of the navigation bar, there are links for "Register with 365FarmNet now" and "Demo User". Below the navigation bar, the main content area is divided into three sections. The first section, titled "Farm", contains icons for Business units, People, Machines, Inventory, External connections, Weather locations, Prices, Farm sites, and a Data import button with a USB icon. The second section, titled "Crop", is highlighted with a yellow border and contains icons for Fields, Fertilisers, Plant protectant, and Crops. The third section, titled "Cattle", is also highlighted with a yellow border and contains icons for Cattle, Cattle groups, Service sire, Animal choice, Master data, Treatment supply, Import MLP, HIT comparison, and Feeds.

Open for a new partnership



- Machines
- Facilities
- Forecasts
- Consulting
- Senors
- Evaluations



365FarmNet supports farmers in all areas of operations management – from anywhere, 365 days a year



**Automate
documentation**

**Record and inform
via mobile devices**

**Cross compliance &
organize fertilizer
ordinance**

**Visualize
evaluations**

- Easy working via intelligent assistants and thoughtful systems
- Networking of agricultural sectors
- Safe and automated documentation as a basis for efficient agricultural management

TELEMATICS



The App

- Smartphone app for iOS and Android
- Check machine status at any time
- Smartphone navigation can be used to even navigate machines
- Initial overview of machine capacity utilisation



Benefits

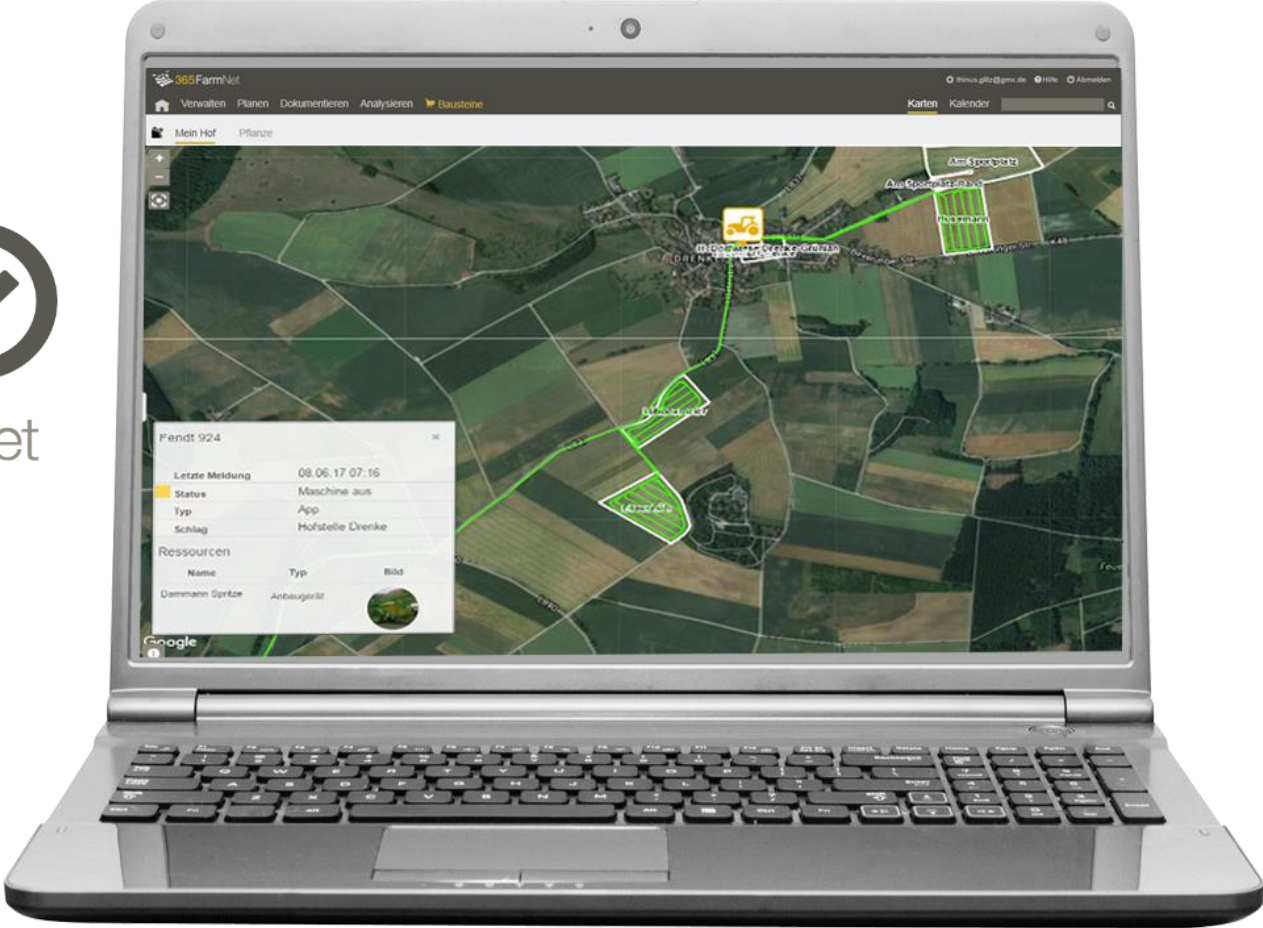
- Simple and intuitive
- Any time, anywhere
- No additional costs
- Information about the work process



365Active System – optimum overview and convenient documentation



365FarmNet



Component: Field optimization



The screenshot displays the 365FarmNet web application interface. At the top, there is a navigation bar with the 365FarmNet logo, a home icon, and menu items: Manage, Plan, Document, Analyze, and Shop. On the right side of the navigation bar, there are links for "Register with 365Farmnet now", "Demo User", and "Help". Below the navigation bar, there is a search bar and a "Maps" button. The main content area is titled "My Farm Crops" and has three tabs: "Machines", "Fieldroute optimisation", and "Precision Farming".

On the left side, there is a "Fields" table with the following data:

no.	Name	Area (ha)	
<input type="checkbox"/>	13-01	Katzbachwieden-03	6.85
<input type="checkbox"/>	14-01	Brunnen-links	0.80
<input type="checkbox"/>	14-02	Brunnen-rechts	0.61
<input type="checkbox"/>	15-00	Hinterm Wald	1.00
<input type="checkbox"/>	54-00	Elisenhöhe	4.95
<input type="checkbox"/>	57-00	Husemann	4.74
<input checked="" type="checkbox"/>	58-00	East Field	12.00

Below the table, there are several configuration options:

- Machine: [Dropdown menu]
- Headland width: 0.00 m
- Working width: 0.00 m
- Headland speed: 0.00 km/h
- Working speed: 0.00 km/h
- Create partfields:
- Display tracks:

The main map area shows an aerial view of a farm with a large field highlighted in orange. A red line indicates a headland, and a yellow line indicates an AB line. The map includes a legend with the following items:

- Track (Green square)
- AB line (Yellow square)
- Field (White square)
- Partfield (Blue square)
- Headland (Red square)

The map also shows a "CLAAS" logo and a "Google" logo. At the bottom of the map, there is a copyright notice: "Kartendaten © 2017 GeoBasis-DE/BKG (©2009), Google Grafiken © 2017, DigitalGlobe, GeoBasis-DE/BKG, GeoContent, Nutzungsbedingungen, Fehler bei Google Maps melden".

At the bottom of the application, there is a version and copyright notice: "365FarmNet Version 12.0.7.9419.12.2016 - Copyright © 2013-2016. All rights reserved. Terms of service and privacy policy. Legal notice".

Result of a machine with a working width of 15 meters



365FarmNet Register with 365Farmnet now Demo User Help

Manage Plan Document Analyze Shop Maps Calendar

My Farm Crops

Machines Fieldroute optimisation Precision Farming

Fields

no.	Name	Area (ha)
13-01	Katzbachwieden-03	6.85
14-01	Brunnen-links	0.80
14-02	Brunnen-rechts	0.61
15-00	Hinterm Wald	1.00
54-00	Elisenhöhe	4.95
57-00	Husemann	4.74
58-00	East Field	12.00

Machine: Slurry Tanker

Headland width: 15.00 m

Working width: 15.00 m

Headland speed: 8.00 km/h

Working speed: 8.00 km/h

Create partfields:

Display tracks:

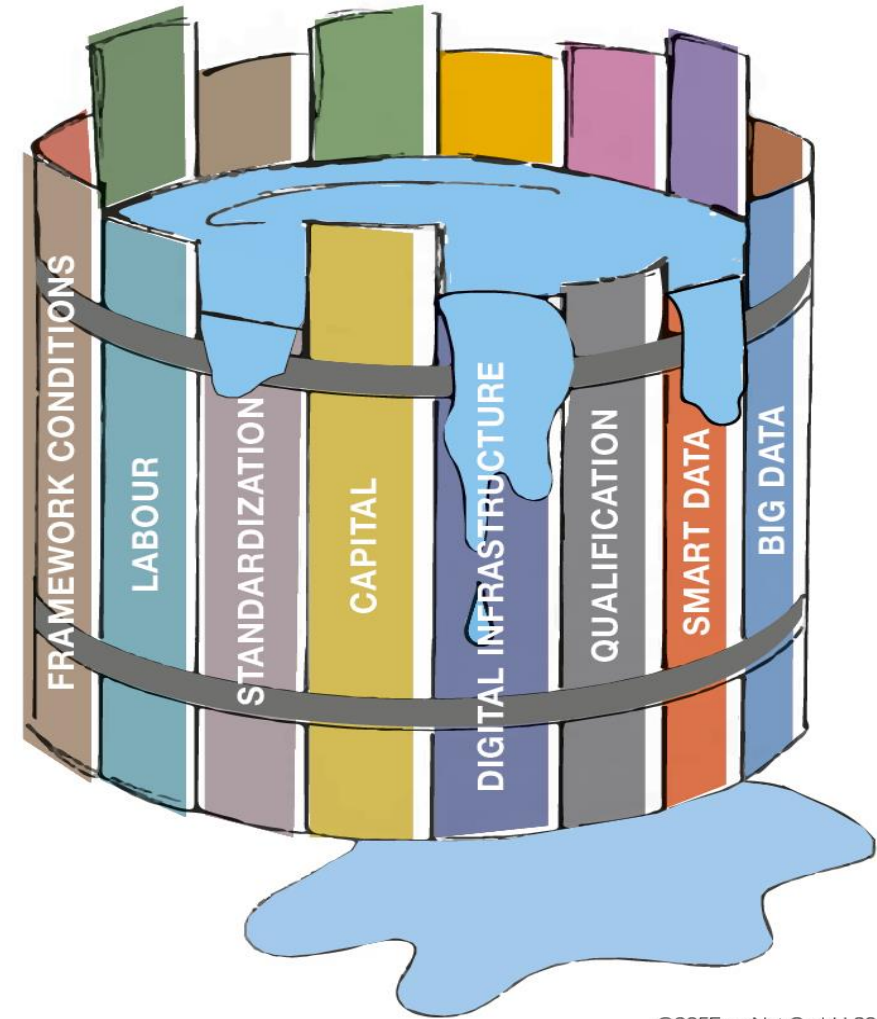
Route results

Working time	1.12 h
Time in the field	0.71 h
Time in the headland	0.41 h
Area	11.11 ha
Number of turns	18
Route length	8.93 km

Westenholzer Str. Westenholzer Str. Westenholzer Str.

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Why we need a standards?



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“The challenge of the future is to bring more intelligence on the m²” *



* Prof. Dr. Rademacher

Passion for agriculture – passion for digitization



Thank you for your attention.

I am looking forward to discussing these issues with you.



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