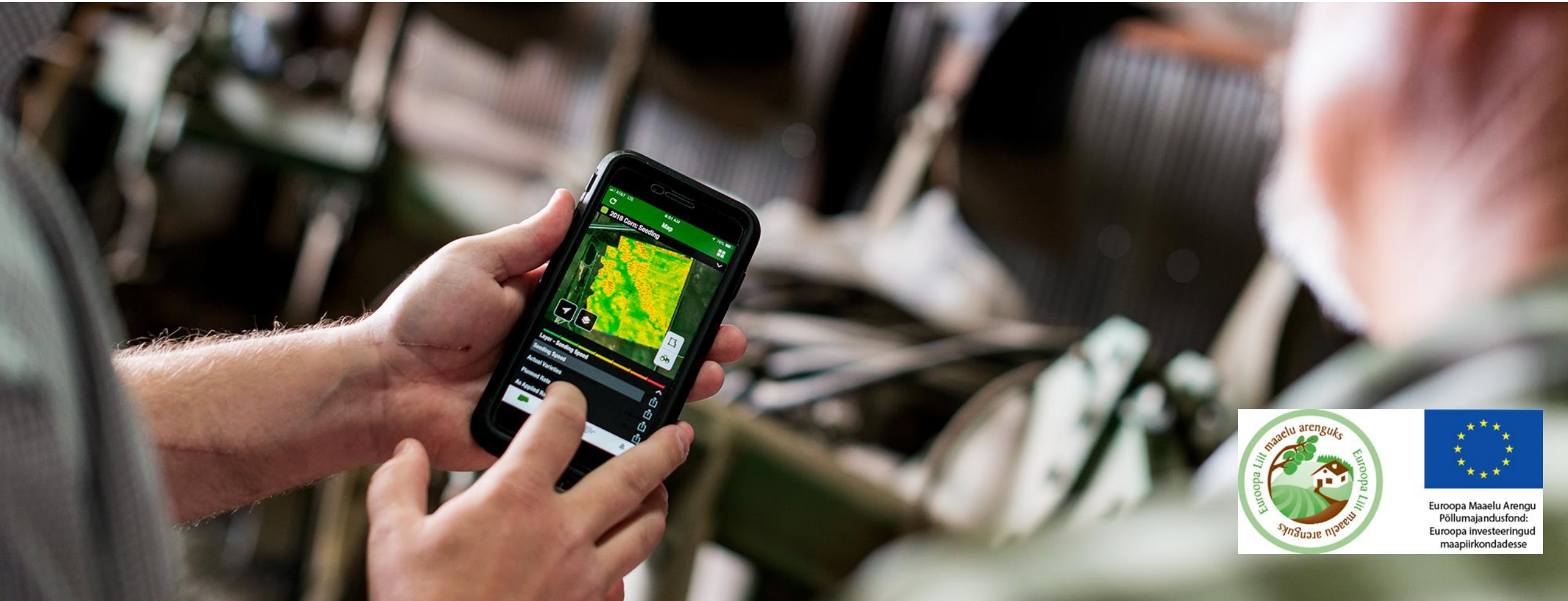
Farm machine data & DataConnect
How JohnDeere organizes farm data and data sharing

Dr. Thomas Engel

Manager Technology Innovation Strategy

JOHN DEERE

NOTHING RUNS LIKE A DEERE



Euroopa Liit maaelu arenguks
Euroopa Liit maaelu arenguks

Euroopa Maaelu Arengu Põllumajandusfond: Euroopa investeeringud maapiirkondadesse

John Deere at a glance 2021

- Headquarters: Moline, Illinois, United States
- Employees worldwide: 69,600
- Total net sales and revenues: $44,024 billion US
- Net income: $5,963 billion US

Portfolio

– Agricultural Equipment

– Construction Equipment

– Turf Equipment

– Forestry Equipment

– Financial Services

– Power Systems

– Intelligent Solutions

– Worldwide Parts Services

European Technology Innovation Center
Kaiserslautern - Germany

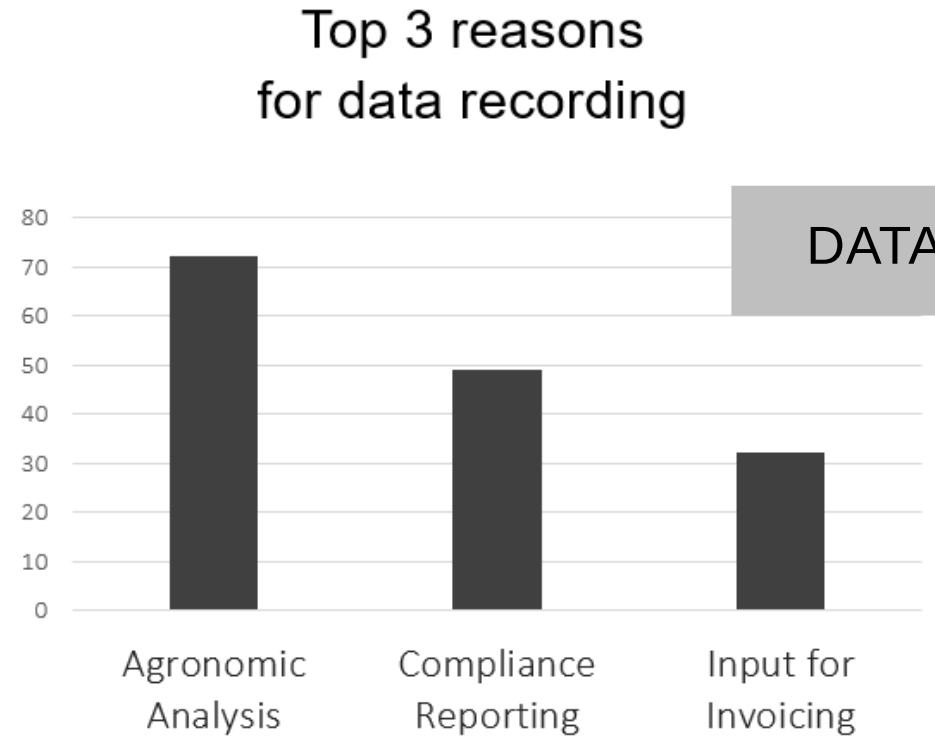
- Opened in 2010 in Kaiserslautern
- Engineers, IT and marketing specialists develop ‘intelligent solutions’ for precision farming and other future technologies
- Cooperation with universities & research institutions
- 210 employees

Machine capacity doesn´t stop at field boundaries

FIELD

OFFICE

ANYWHERE / ANYTIME



N=258 (UK, GER, FR)*

DATA

DATA handling matters!

* EMR study on technology adoption, 2020

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Public

Cloud-based Connectivity

6030 & 6R Tractors

W235 Windrower

7760 Cotton Picker

S, T, W Series Combines

7030 & 7R Tractors

John Deere
Operations Center

8030 & 8R/RT Tractors

7050, 7080 Forage Harvesters

9030 & 9R/RT Tractors

R4030, R4038 4630 ,4730, 4830
4940 Sprayers

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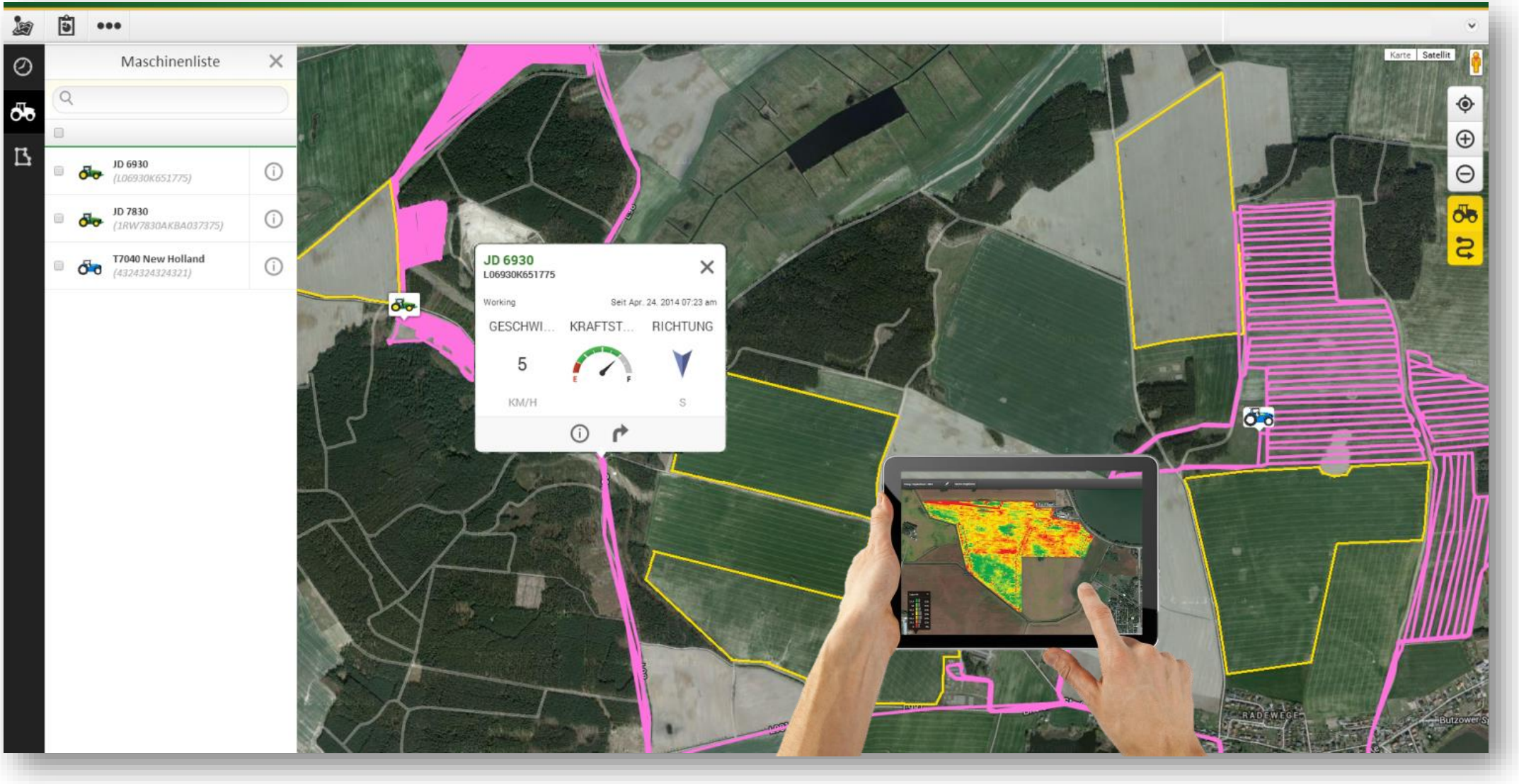
Public

MyJD Operations Center



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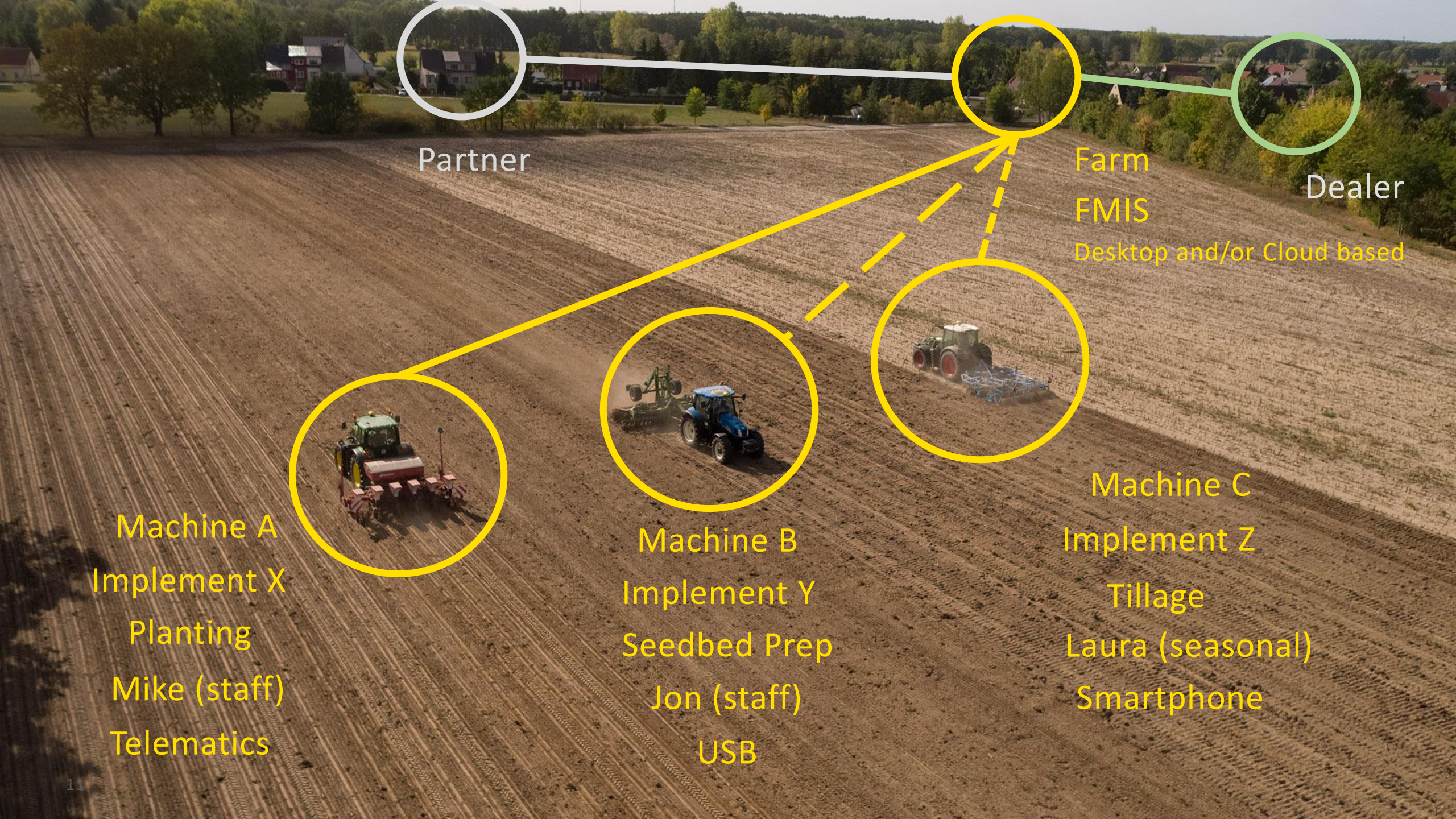
Public

MyJD Operations Center - My Machines

JOHN DEERE
Public

MyJD Operations Center - Field Analyzer

OPEN
LOCAL
SAFE
YOUR #1 FOR
PRECISION
AGRICULTURE
JOHN
JOHN DEERE OPERATIONS CENTER CONNECTED*
*AVAILABILITY VARIES PER COUNTRY
YOU WANT TO CONNECT AS WELL?
AgroclimaPRO
POLLEN SYSTEMS CORPORATION
Land.db
SoilOptix
pct agcloud
FieldClimate
agricon
visual
Field Insights
AgDNA
Fieldagent
esri Suisse
VNET
Soft.Farm
Rain and Hail
Pessl
STEYR
FARM DOG
fieldmargin
RAPTOR MAPS
AgPixel
DEXERONI
AIRBUS
CROPIO
BOSCH
GEOSYS


Partner
Farm
FMIS
Desktop and/or Cloud based
Dealer
Machine A
Implement X
Planting
Mike (staff)
Telematics
Machine B
Implement Y
Seedbed Prep
Jon (staff)
USB
Machine C
Implement Z
Tillage
Laura (seasonal)
Smartphone

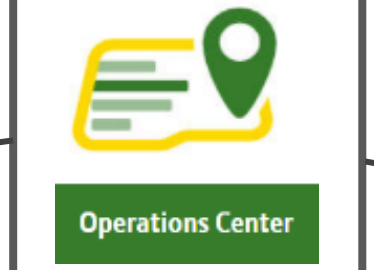
FIELD

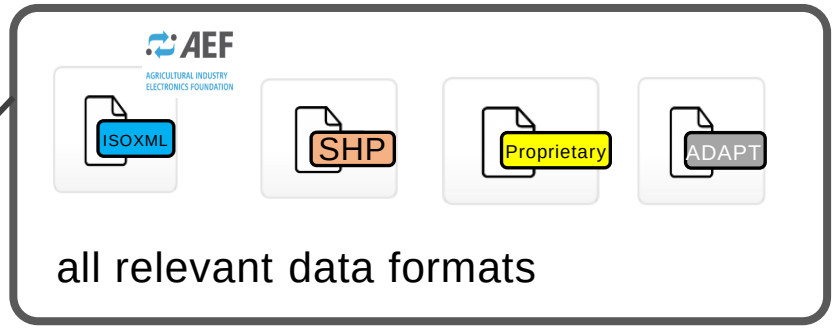
OFFICE

ANYWHERE / ANYTIME

- ISOXML
- 3rd party proprietary

Manual Documentation

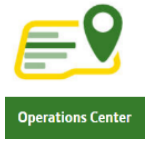




all relevant data formats

JD APIs

- >180 CSC*
- DataConnect



- Trusted Advisor
- Dealer

Telematics USB App Drag & Drop and/or automatically

* CSC = Connected Software Company

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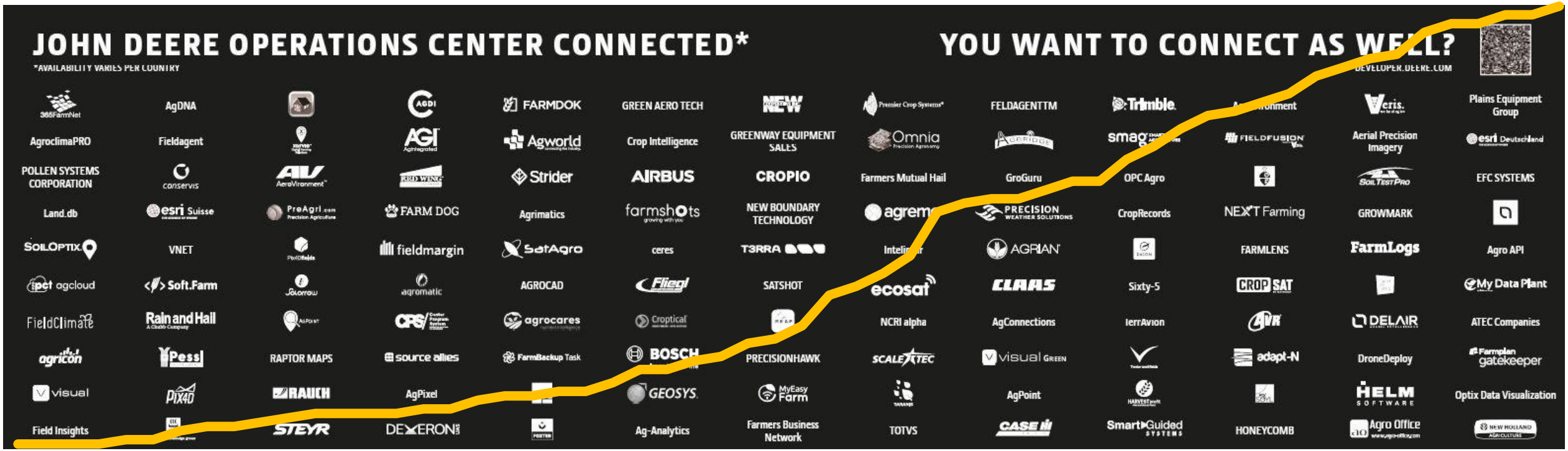
OPEN ecosystem

John Deere Operations Center Connected

> 180 connected software companies



2013 2014 2015 2016 2017 2018 2019 2020

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OPEN ecosystem

DataConnect

- Cloud-to-Cloud communication

Data:

- Current Location
- Location history
- Fuel level
- Speed
- Engine on/off

- Near-real-time data exchange
- No data losses
- Use of preferred data platform
- Backwards compatible

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MyPLM CONNECT

365FarmNet

AFS CONNECT

LOCAL

Your local John Deere dealer

- John Deere dealer expertise in
  - Sales (value)
  - Service & Setup
  - Trouble Shooting to provide Uptime
- Is located close by the customer
- Enbles Remote Services and Diagnostics

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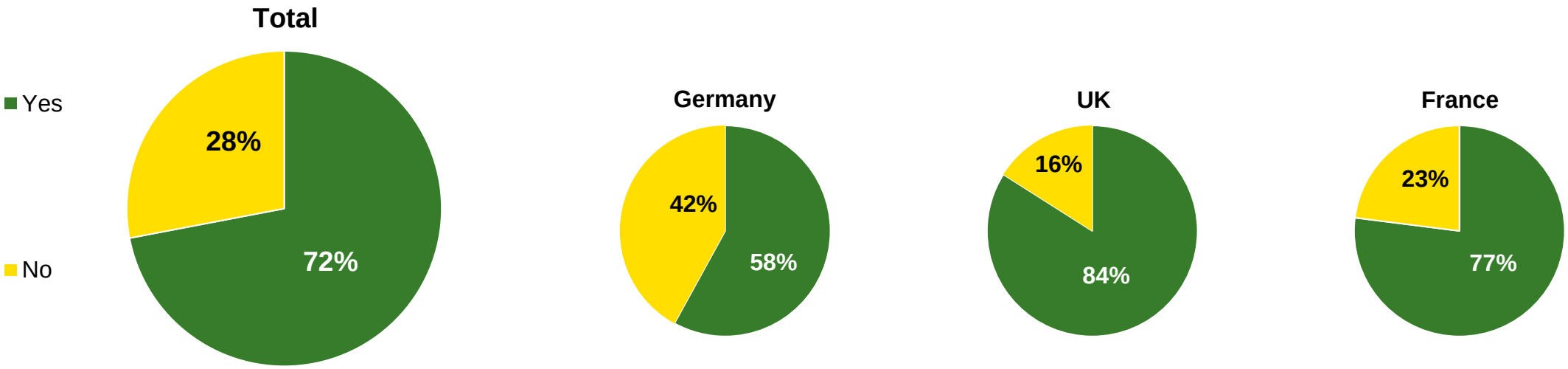
SAFE



Reasons to not trust cloud service security:

- Access to cloud data is not exclusive to me
- The services can be hacked / data can be exposed
- Third parties or other companies could gain access the data

Total	164
Germany	64
UK	45
France	48
Spain	7

N=328

internal study, 2019

"Finally, thinking about the security of your operation's data, do you consider cloud services to be a secure place for your data? If no, please explain why not?"

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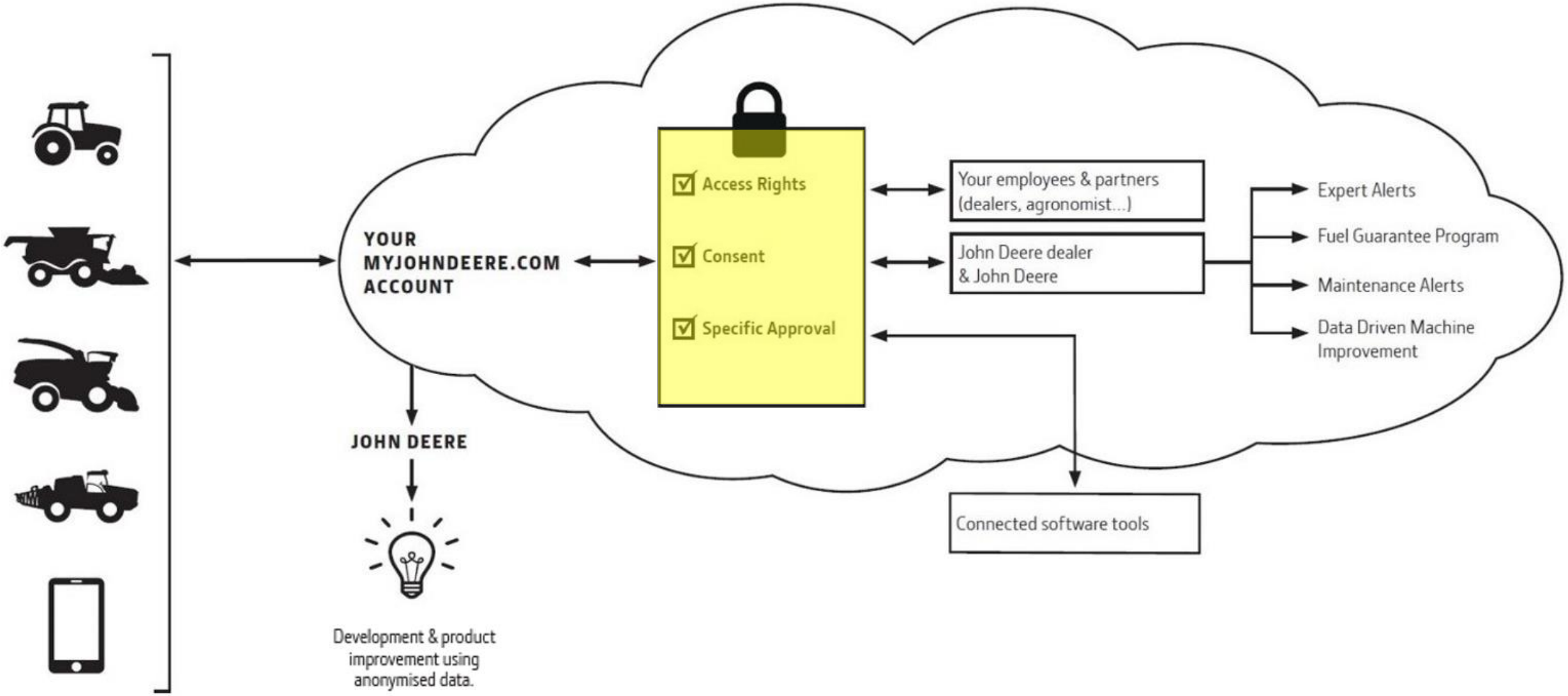
SAFE



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SAFE

- Full control who has access to the data
- Granted access rights can be revoked at any time
- Data is effectively protected against data-loss and theft

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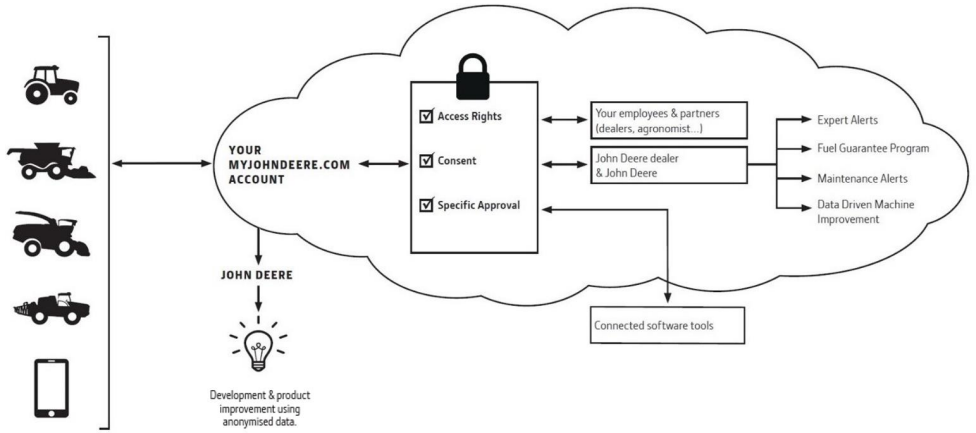
How Data Sharing benefits YOU

Using Data to Improve productivity

- Increasing Uptime
  Expert Alerts
- Improving Machine Optimization
  Remote Display Access
- Remote Machine Diagnostics
  Service Advisor Remote



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Public

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Thank you!