VISUAL FMS Integration with MyJohnDeere API: Automatic Farm book

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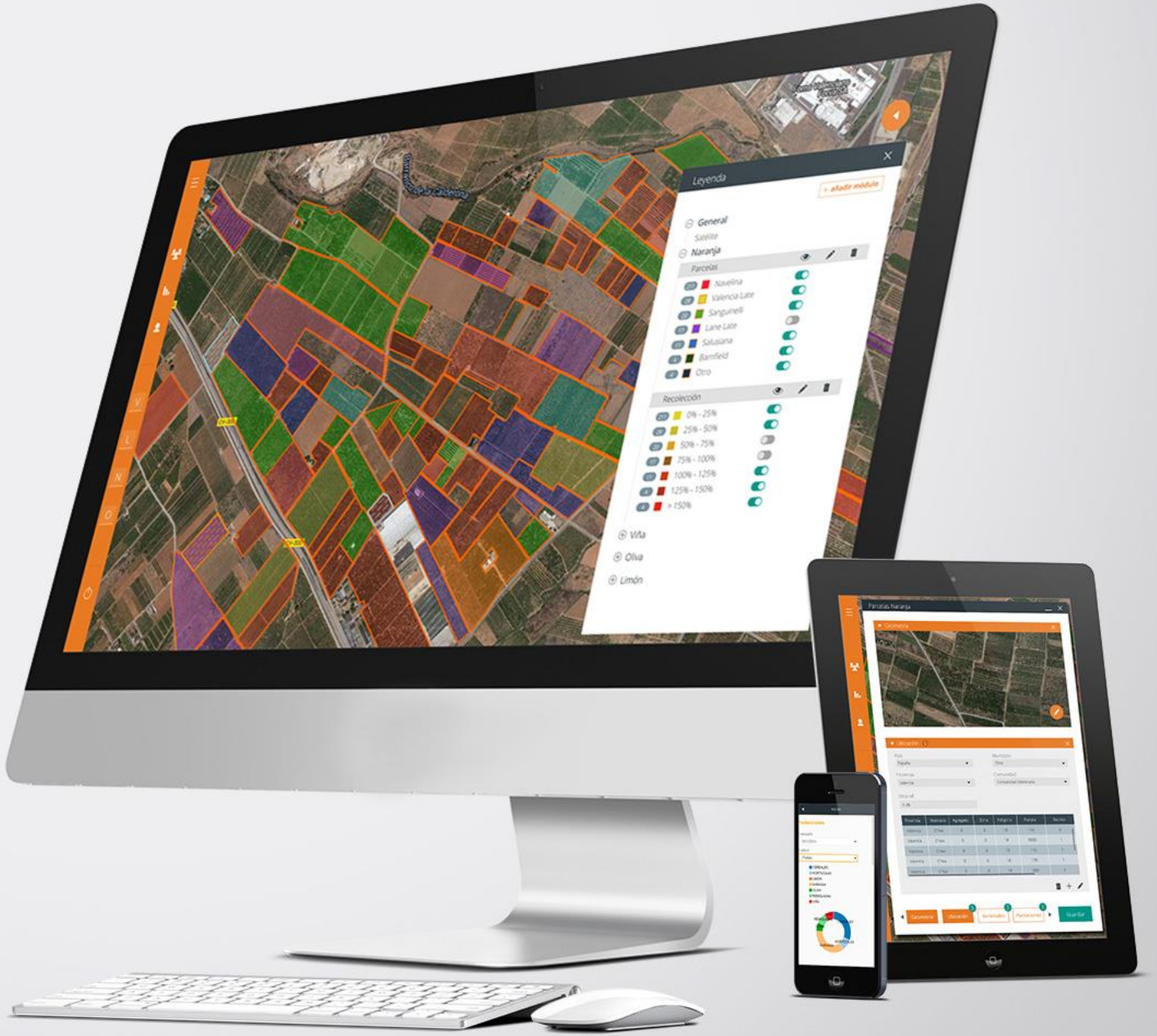
VISUAL 4.0:
Platform for connected agriculture

Farm Management System

Data Analytics platform

Cloud based

Improve data sharing



NPK
TILLAGE
SOWING
IRRIGATE
PROTECT
HARVEST

ERP
visual
visual
visual
W
X

JOHN DEERE

SOCIO COMERCIAL DE Telefónica

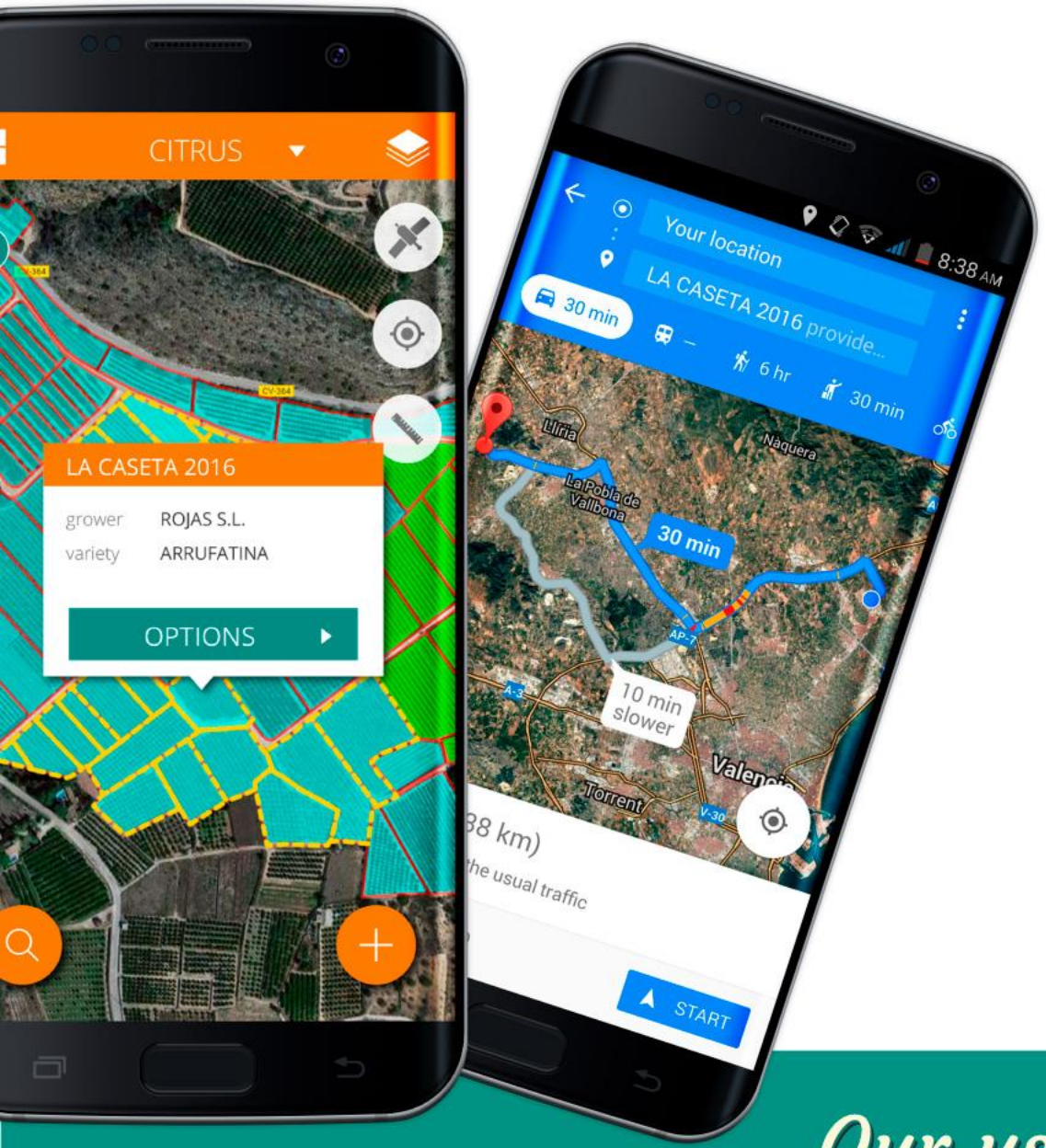
AGRONOMIC MANAGEMENT

From sowing to harvesting

Sowing
Fertilization
Weeds control
Monitoring plan
Pest & disease control
Harvesting

Sensors

& ag-weather data



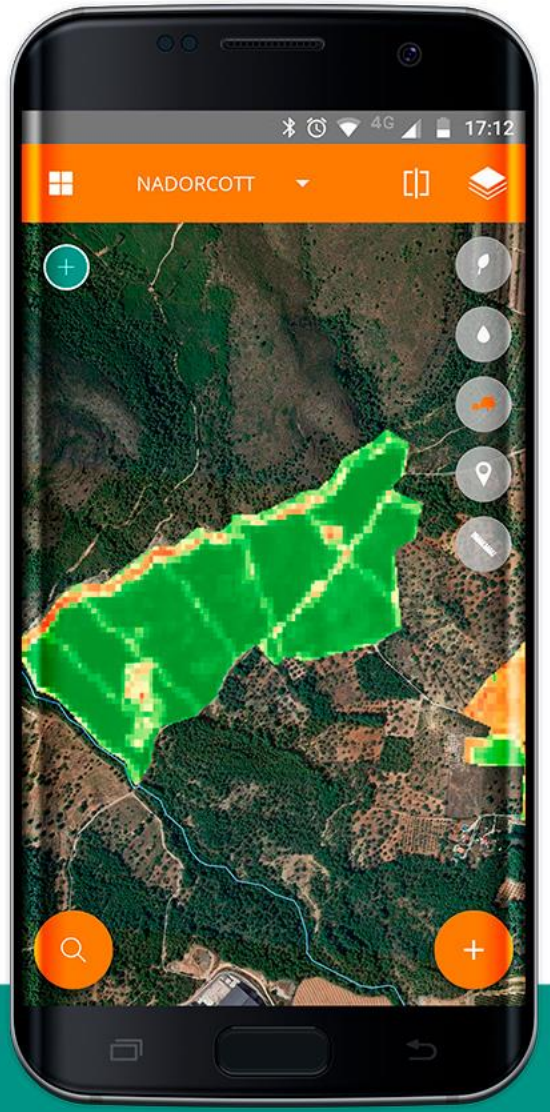
Organize your work & save all your data in the same place

OFFICIAL FIELDBOOK
Meets the requirements of the most relevant standards.

COMMUNICATION BY EMAIL, SMS OR VISUAL APP
Send treatment orders to several plots at once.

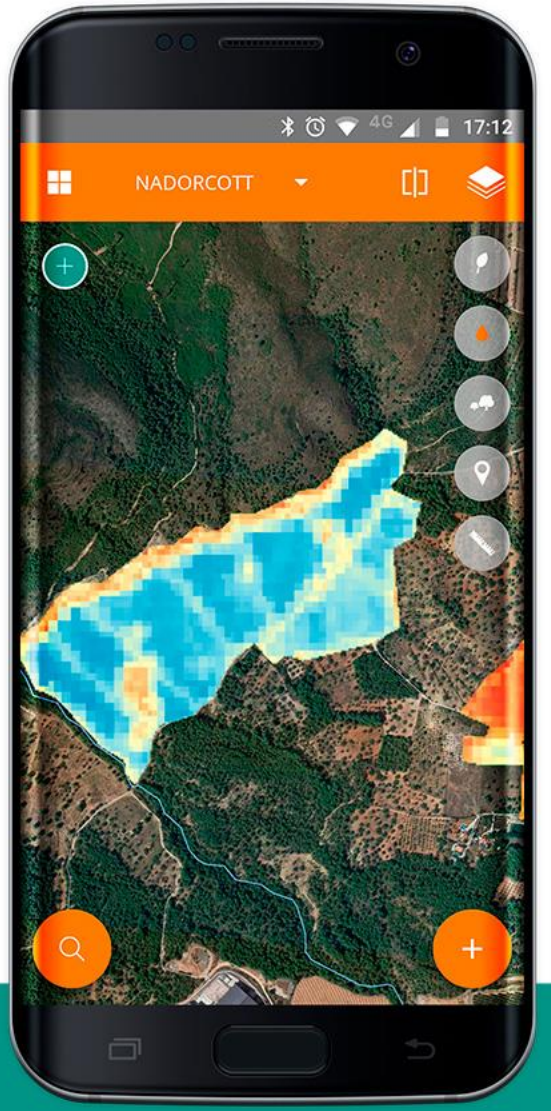
Our users save the 50% of their time

NDVI



LAI

NDII



DATA LOGGED IN + ALGORITHM » YIELD FORECAST

$$YIELD = f(c,p,e) + \varepsilon$$

f – Machine learning

c – Crop/variety features

p – farmer practices

e – environmental features

ε – variability

My John Deere Integration

Integration diagram

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My John Deere API

JOHN DEERE
OPERATIONS CENTER

NPK
TILLAGE
SOWING
IRRIGATE
PROTECT
HARVEST
JOHN DEERE
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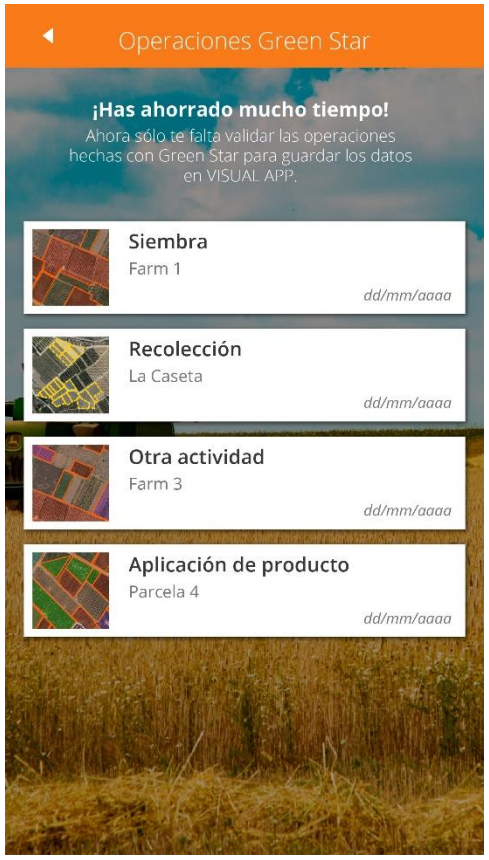
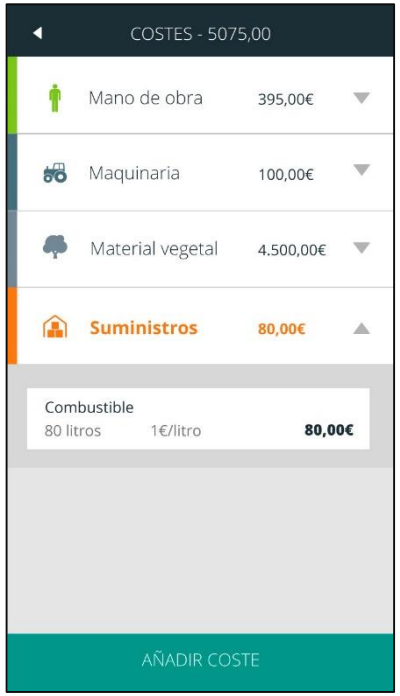
VISUAL GREEN
Tu explotación te espera
Consulta y registra tus parcelas con actividades
Cuaderno de campo automático
Valida aquí tus operaciones de GreenStar
Interactúa con el mapa
Descubre la evolución de tus parcelas

JOHN DEERE
4,3
(m)
Sólo cobertura
Cobertura
Solape
Estado de registro
Granja
Simulator
Campo
North 40
* Tipo de producto
Insecticide
* Nombre producto
Lorsban
* Dosis deseada
50,0
(l/ha)
Pasada recta
Granja: Simulator
Campo: North 40
Registrando
3D
SF2
Calibrar T
Ajustar pasada 0
track1
9,1440(m)
1/1

Operation data validation



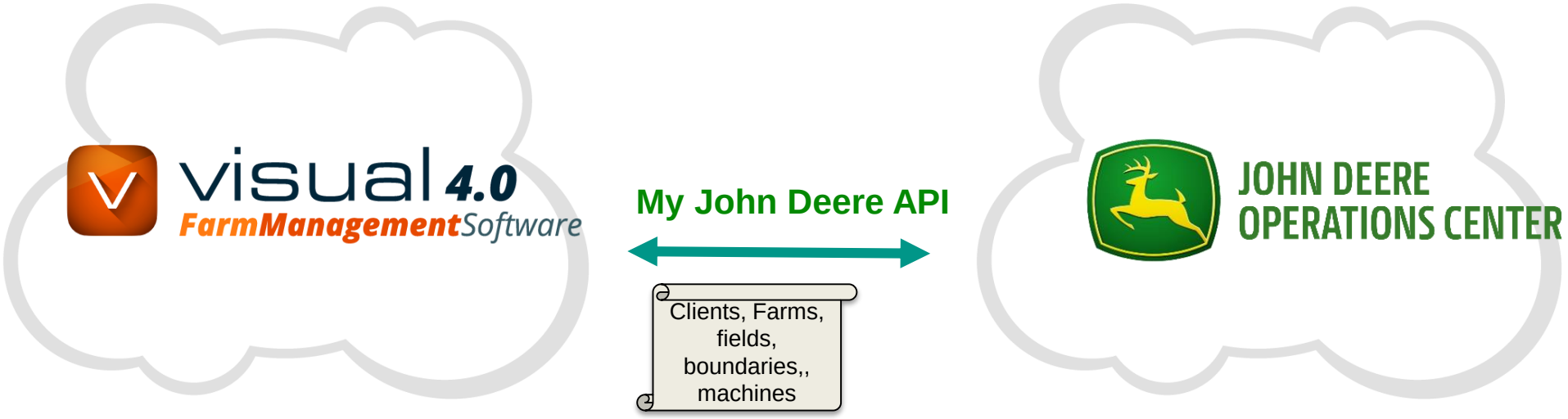


What data is transferred?

For each activity that is documented on the GS3, an activity is created in VISUAL including the following data:

- ✓ Agronomic data from: seeding, harvesting, tillage, and product application/spraying
- ✓ Worked area
- ✓ Fuel consumption
- ✓ Time used
- ✓ Workforce
- ✓ Machinery involved

FIRST SCENARIO: General data

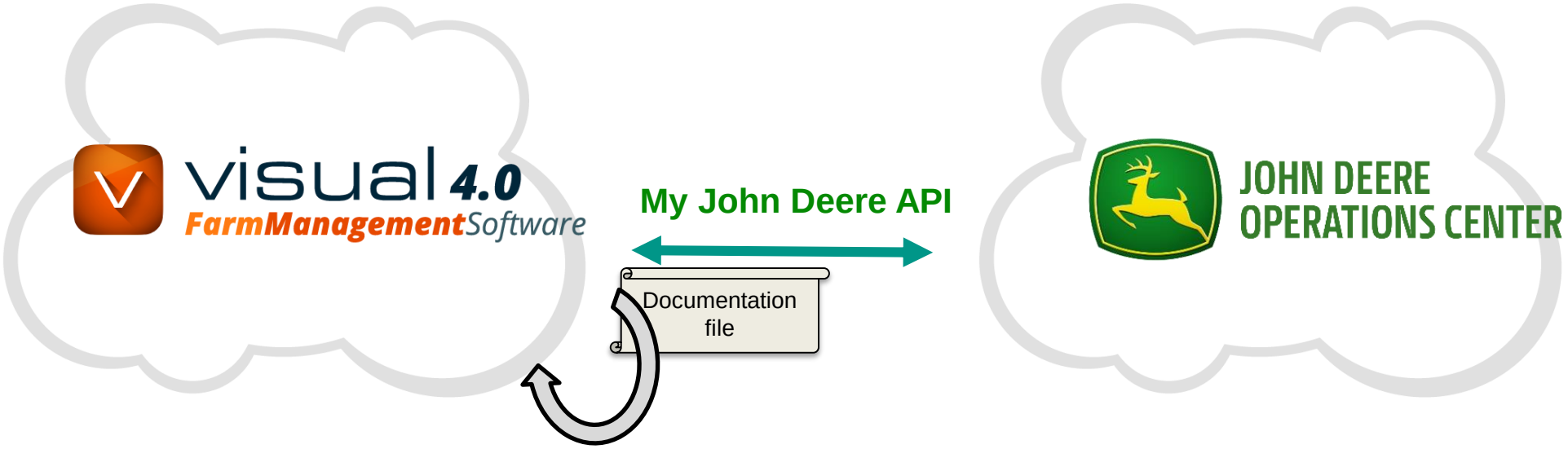


General data from Operations Center is downloaded using My John Deere API:

Base resources API: download machinery
Field details API: clients, farms, fields, boundaries

Data enrichment with VISUAL master data.

SECOND SCENARIO: Documentation data (operations + costs)



Documentation files are downloaded using Base Resources API.
Then are processed using EIC SDK (only for available for GS3 2630)
Files are translated to a format that can be understood by VISUAL

VISUAL crosses documentation data with its master data and proposes activities to the fields that are pending validation

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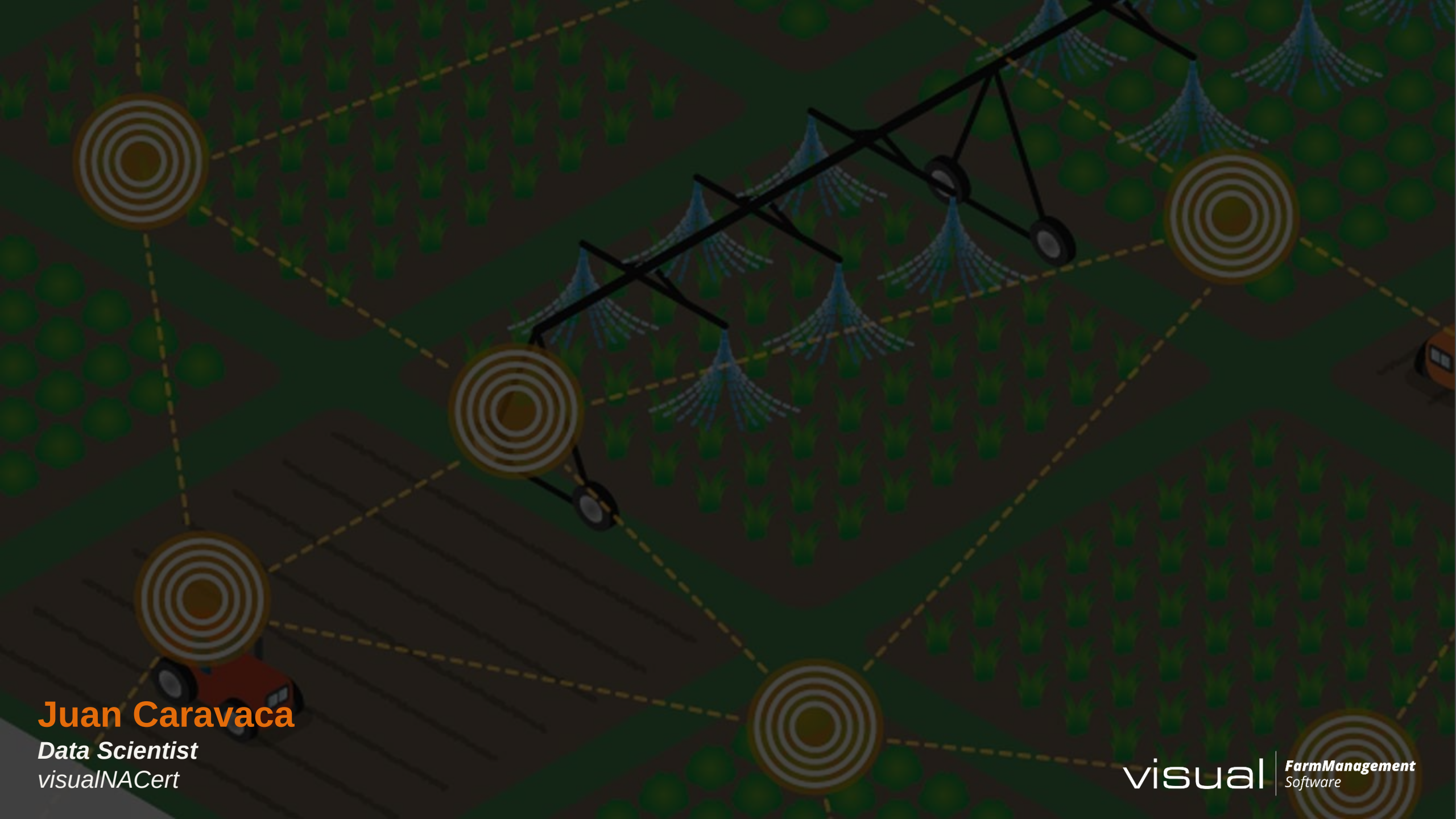

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