



# Building Agricultural Solutions: Connecting Multi-Level Information from IoT to Satellite Data for Precise Agronomic Advice

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# xarvio® Digital Farming Solutions



xarvio®  
Digital Farming  
Solutions  
powered by BASF



**2014**

Foundation date



**Cologne**

Headquarters in Germany with major offices in BR, AR, USA, CA, FR, JP, IT



**100%**

BASF Group ownership



**250**

Employees in agronomic modelling, data science, technology, engineering, commercial



**>120k**

Agricultural users worldwide



**25+**

Years experience in crop modelling following acquisitions of ZedX Inc. (USA), proPlant (GER) and IntelMaxCorp. (CAN), Horta (IT)



 xarvio Products

 xarvio offices



**xarvio**<sup>®</sup>  
Digital Farming  
Solutions  
powered by BASF

**To make agriculture more productive, profitable  
and sustainable with digital.**

**from  
seeding  
to  
harvest**

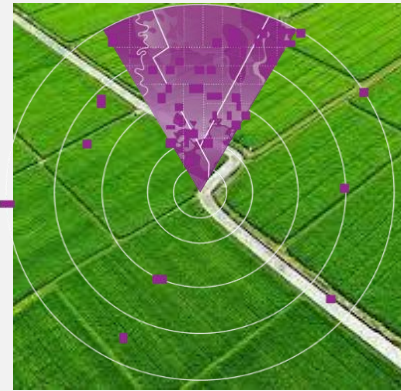


**We offer advanced digital farming solutions and services that enable our customers to make the most of every hectare across the whole crop production cycle.**

# xarvio – a digital ecosystem to optimize crop production



xarvio FIELD MANAGER delivers timely, precise and field-zone specific agronomic advice for every job step during the season.



xarvio HEALTHY FIELDS offers a customized, seasonal crop protection for each field and comes with a success guarantee.



Bosch's camera sensors and xarvio® AG intelligence for precise weed control, delivering clean fields with maximum input efficiency.

## So what?



How can the **integration of multi-level information**, advanced **technologies**, and **data analysis** revolutionize agriculture, empowering farmers with **actionable insights** to optimize **crop management** and achieve **sustainable practices**?



**xarvio™**  
Digital Farming  
Solutions



# Our leading edge digital technology

## Receiving Data



### Mobile Apps / Sensors

Understand what is and will be happening on your fields

## Analyze and Recommend



### Agronomic Decision Engine

Automatic analysis and recommendations by agronomic models  
Models use AI and machine learning

## Implement



### Optimized Crop Production

Implement the optimal dose per field zone at the best time.

# So how?

**In one single platform, supporting farmers from seeding to harvest**



**Agronomic models** based on more than 25+ years of experience



250+ annual **validation trials** globally to fulfill our highest prediction accuracy standards



Field specific crop protection spray timing and dosage advice, with **VRA and VRS applications**



**Weed zone spray** image processing with full service from **drone** flight to **herbicide** application map in 48h



Improve efficiency through optimal use of **fertilizers, seeds and crop protection**



Increase profitability by achieving higher yields and **optimizing input efficiency** in the most sustainable way

# Precision application for optimized Oilseed Rape production

Digital Farming Diaries

## Nitrogen Application Planning

xarvio  
FIELD MANAGER in Action



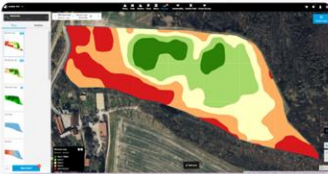
with Henrich Meier



STEP 1 — STEP 2 — STEP 3 — STEP 4

### Checking the current Biomass Map

Found out that my field is heterogeneous and the allocation of the zones was very different compared to last year.



STEP 1 — STEP 2 — STEP 3 — STEP 4

### Comparing Biomass and Yield Potential Map

Observed a notable difference between current biomass allocation and long-term yield potential indicated by the map.



STEP 1 — STEP 2 — STEP 3 — STEP 4

### Verifying field differences with drone

Used a drone to confirm the differences in zone allocation from the Biomass Map.



STEP 1 — STEP 2 — STEP 3 — STEP 4

### Adapting Nitrogen Fertilizer Application

Created an Application Map based on the current Biomass Map to make my field more homogeneous.



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# Collaboration is key in the digital farming space





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# Thank you

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