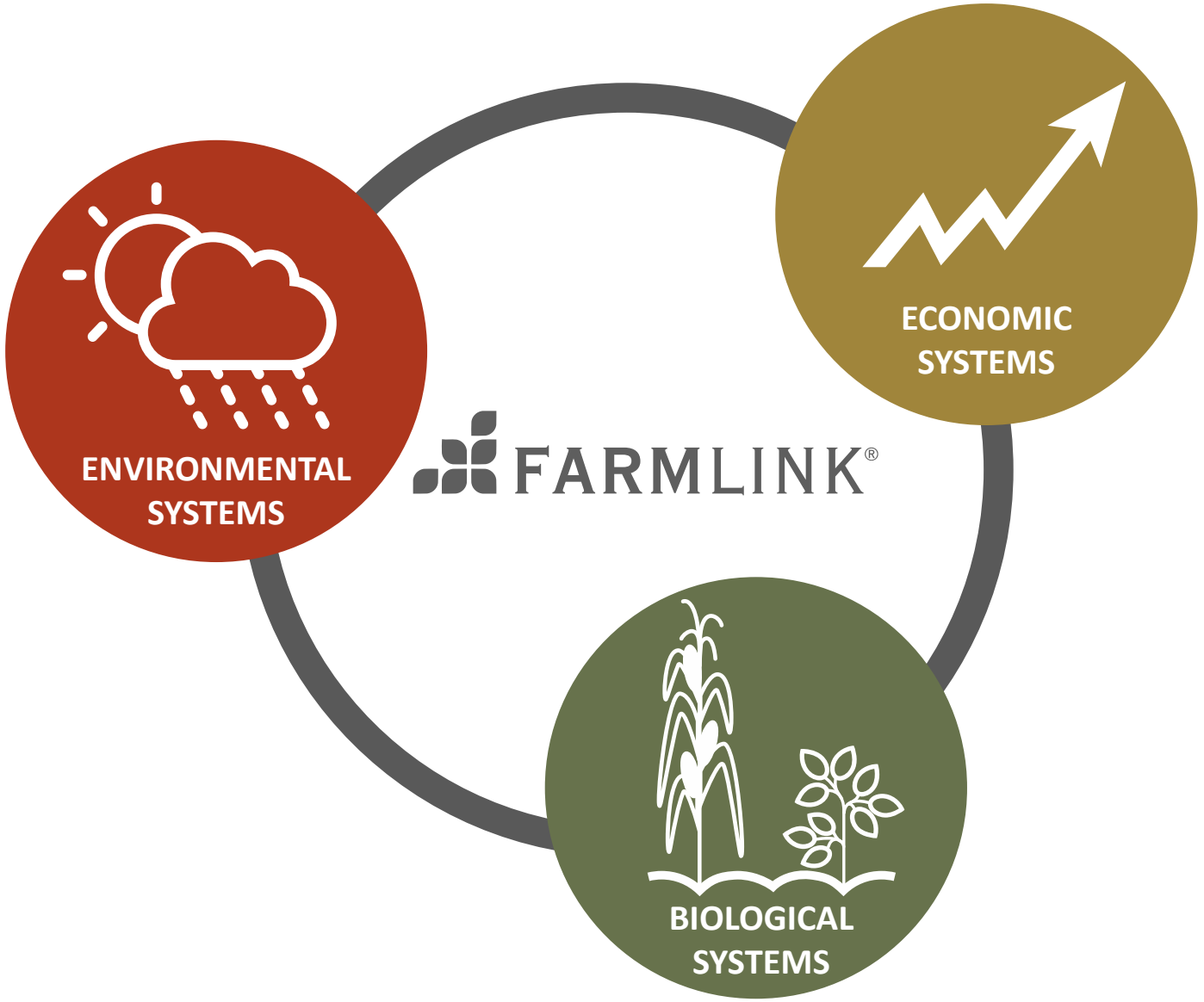
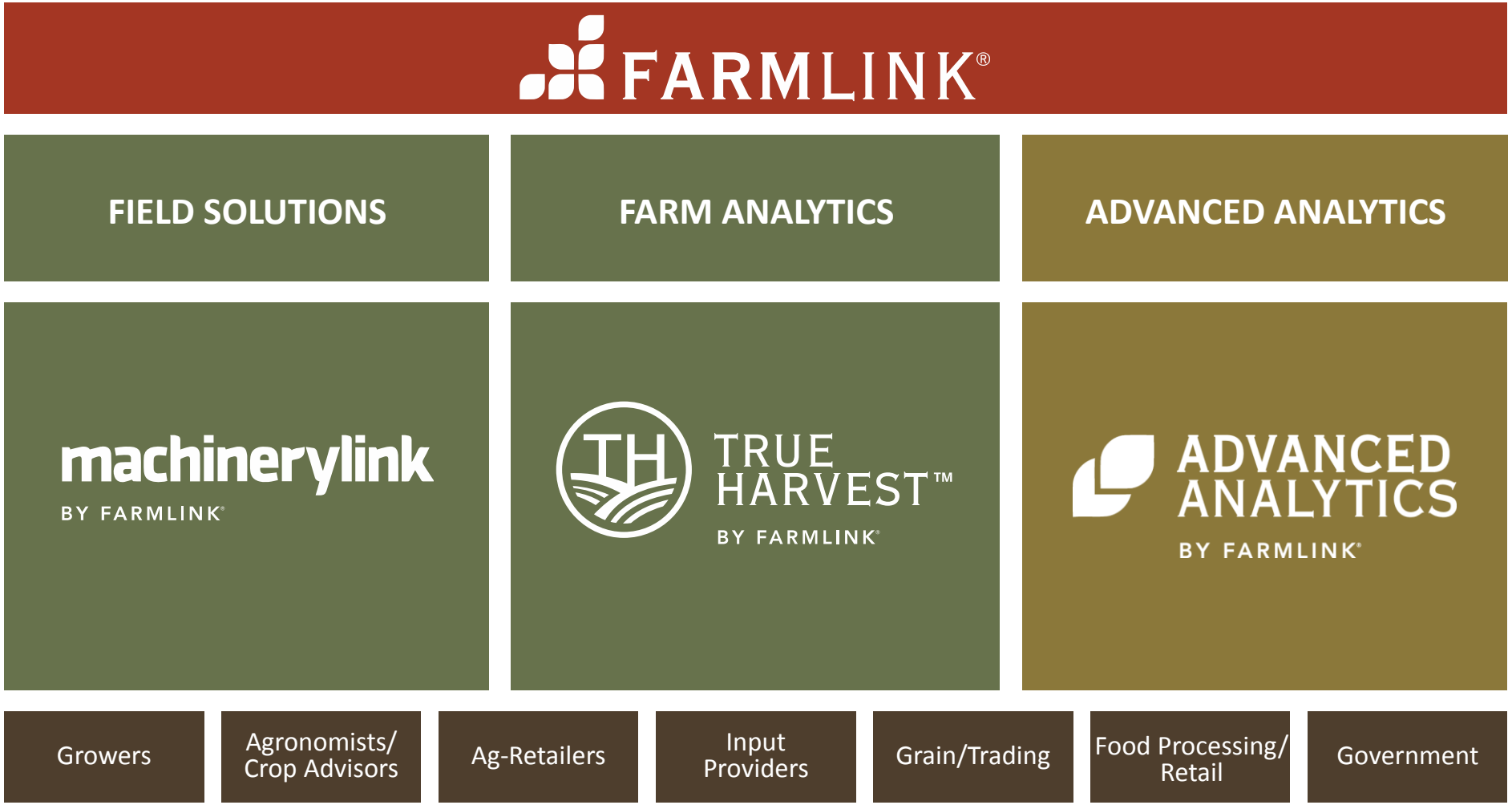
Transforming Agriculture with Data Science – Ag's Next Revolution

Randy Barker

July 30th , 2015


ENVIRONMENTAL SYSTEMS
ECONOMIC SYSTEMS
FARMLINK®
BIOLOGICAL SYSTEMS

FarmLink is committed to applying new technology and business models to accelerate the pace of innovation in agriculture and across the food system



FarmLink is a unique combination of on-farm data collection, nationwide footprint, and world-class data science

Data off managed fleet of 200+ combines

6M+ acres of calibrated yield results

Rigorous QA & validation

800M unique micro-fields reflecting 60+ variables

Unmanaged
Data Collection

VS.

Managed FarmLink
Data Collection

Unmanaged Data Collection

Produces data of varying type & quality

VS.

Managed FarmLink Data Collection

Produces research standard, modeling quality data

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Supports mass data aggregation for trend analysis

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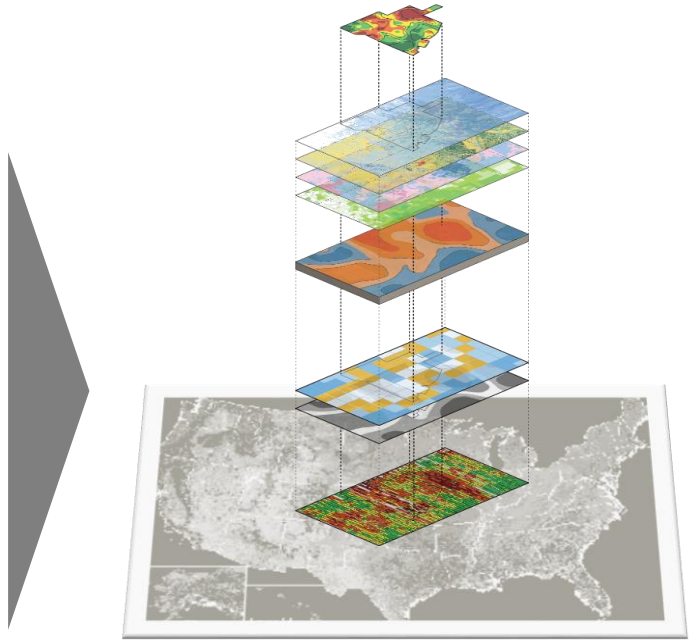
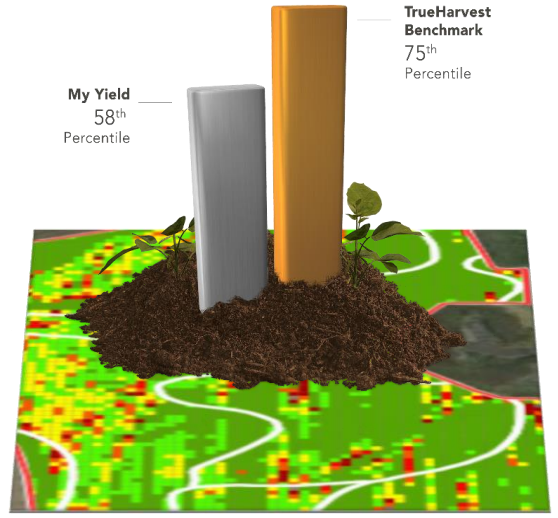
FARMLINK

TrueHarvest

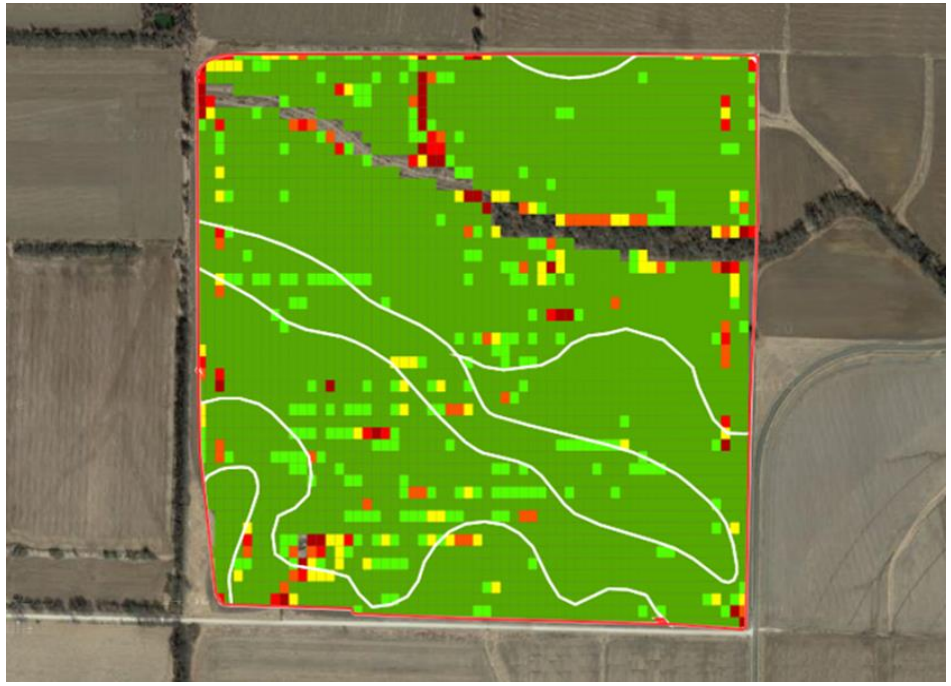
Precision Benchmarking Solution

TrueHarvest transforms “big-data” into actionable insight – Benchmarking ***yield*** vs. ***opportunity***





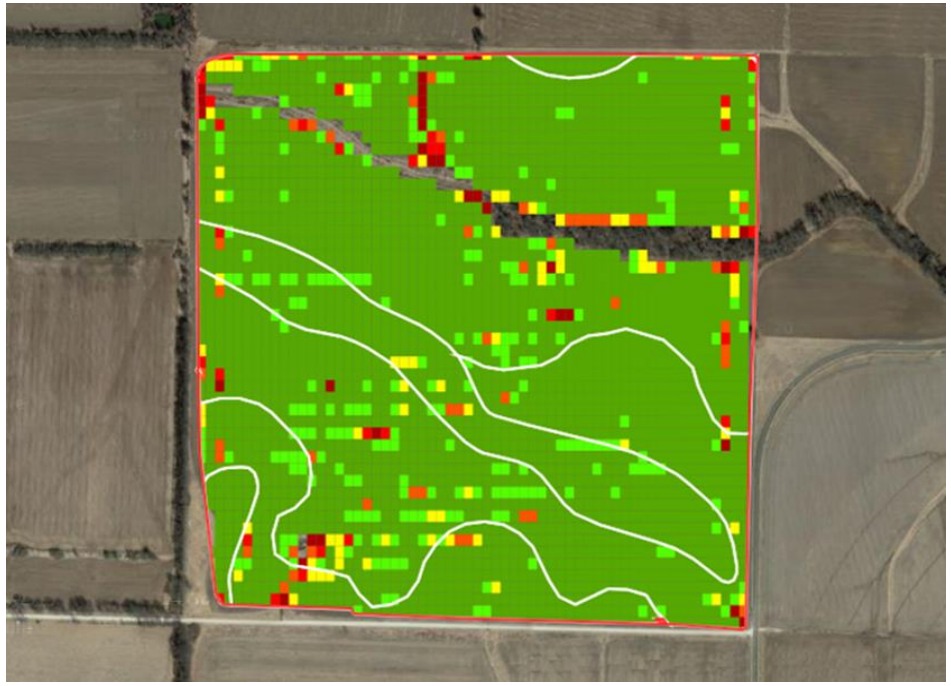
Identifying performance vs. potential



Yield View

Crop: 2014 Corn
Acres: 152 ac.
Actual Performance: 67%
Actual Yield: 225 Bu/A

Identifying performance vs. potential



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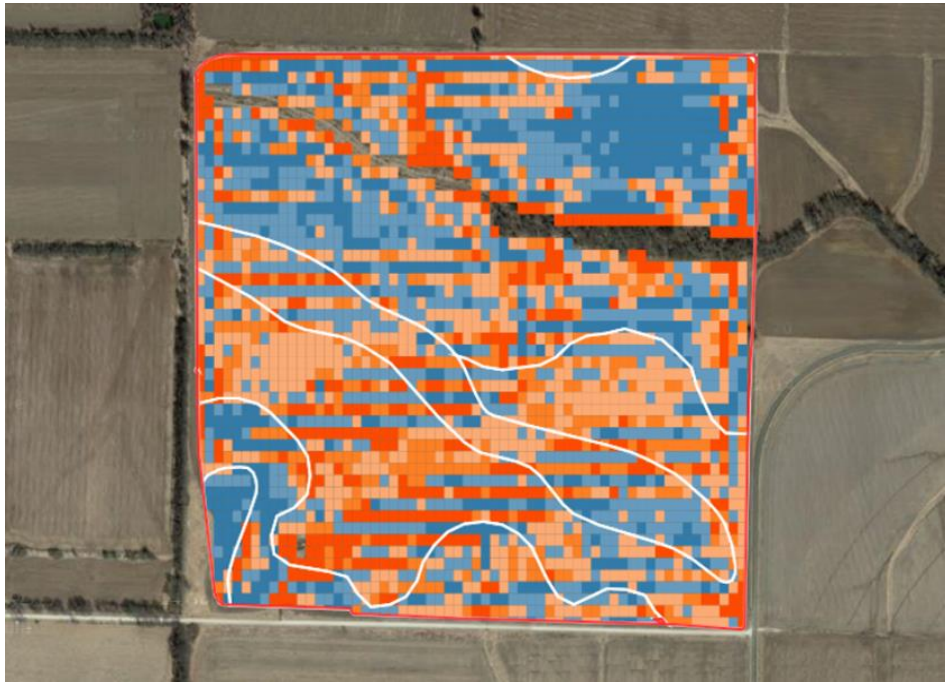
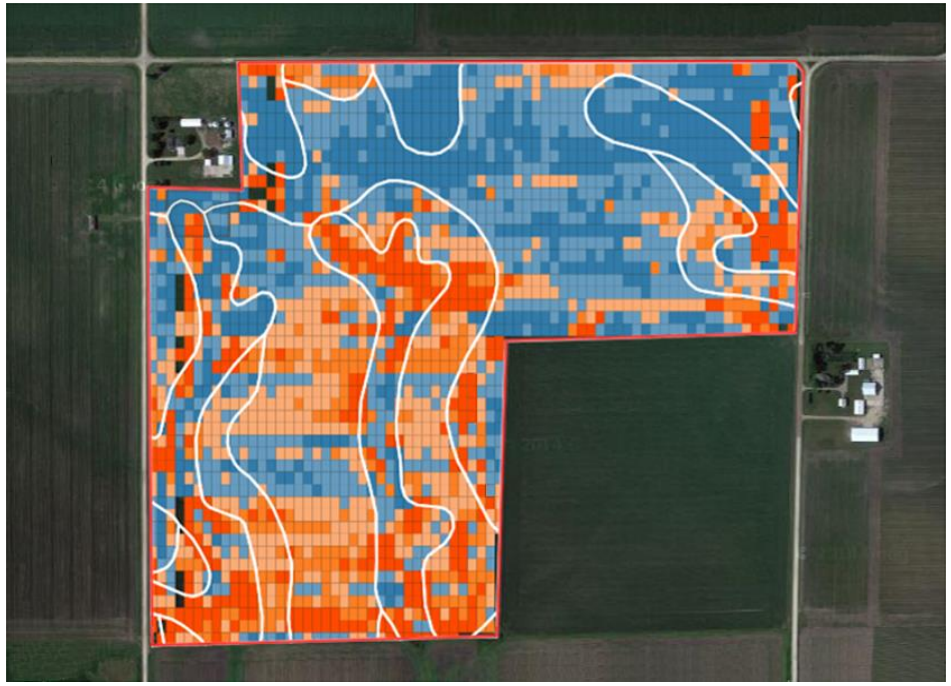


Benchmark View

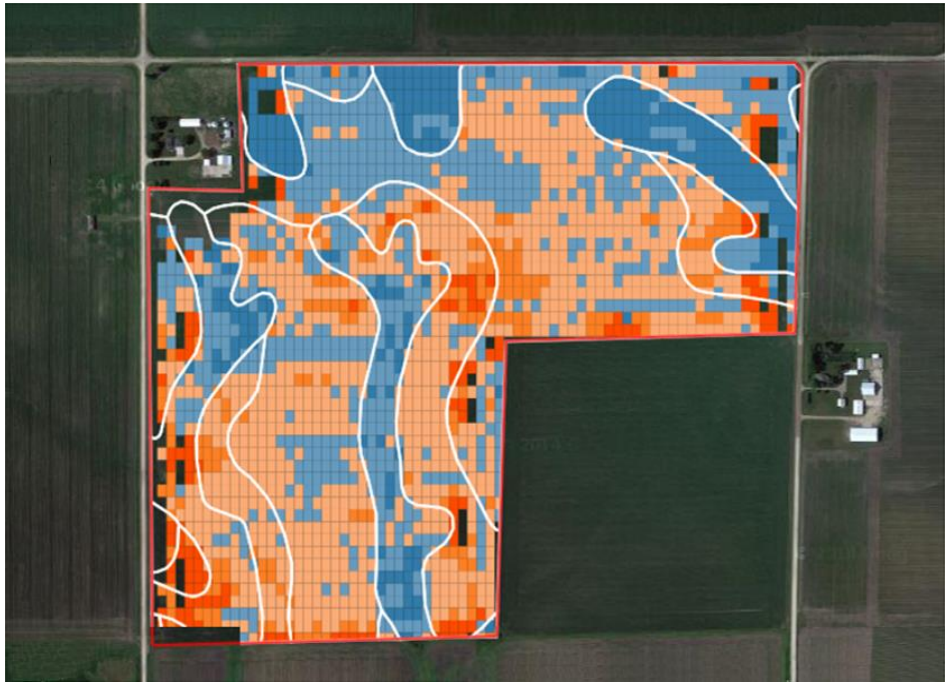
Crop: 2014 Corn
Acres: 152 ac.
Actual Performance: 67% → Target Performance: 80%
Actual Yield: 225 Bu/A → Target Yield: 242 Bu/A
Yield Gap: 17 Bu/A
Opportunity: $10,982

Performance year over year is measurable



2013 Corn

Acres:	123 ac.
Actual Performance:	80%
Actual Yield:	261 Bu/A
Target Performance:	90%
Target Yield:	275 Bu/A
Opportunity:	$7,318



2014 Corn

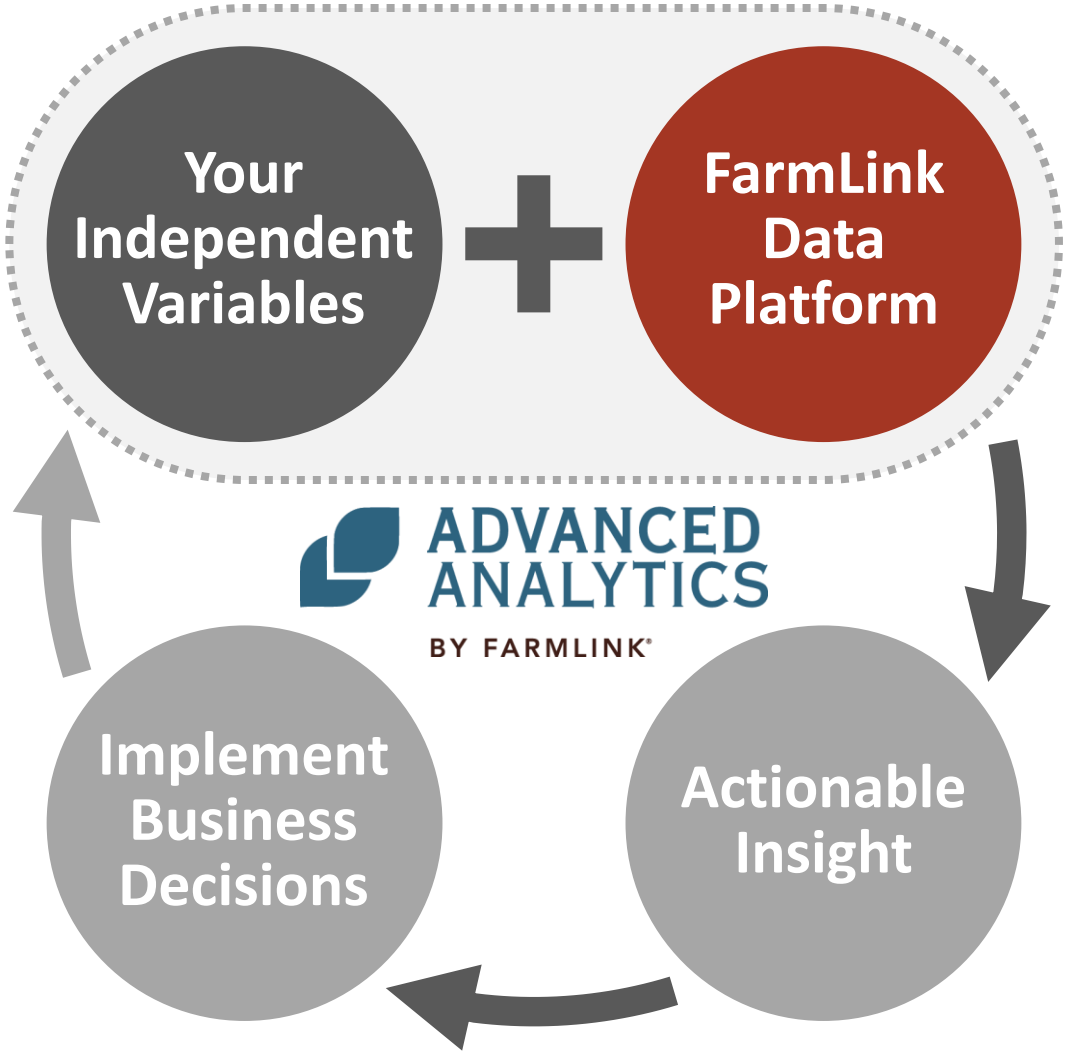
Acres:	123 ac.
Actual Performance:	55%
Actual Yield:	219 Bu/A
Target Performance:	60%
Target Yield:	236 Bu/A
Opportunity:	$8,364

FARMLINK

Advanced Analytics

The Insights Engine

FarmLink's Advanced Analytics division transforms client's independent variables into business decisions



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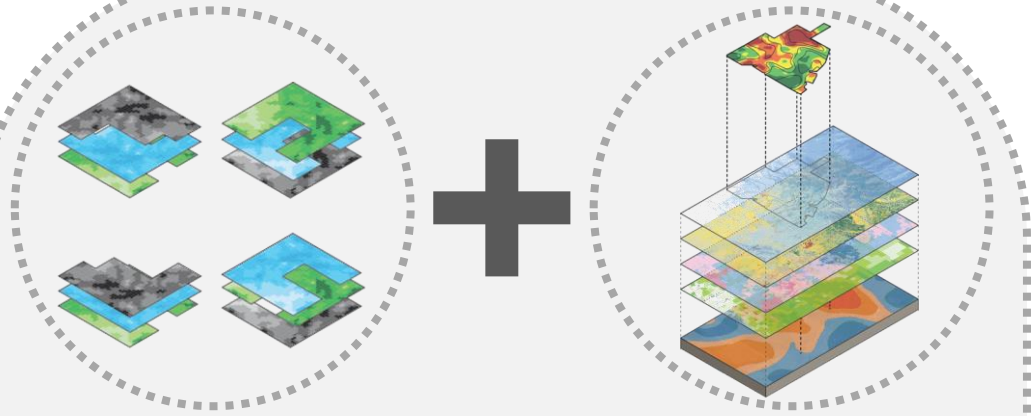
Client Products / Practices & Results



ADVANCED ANALYTICS
BY FARMLINK®

Proprietary algorithms for benchmarking and identifying meaningful patterns

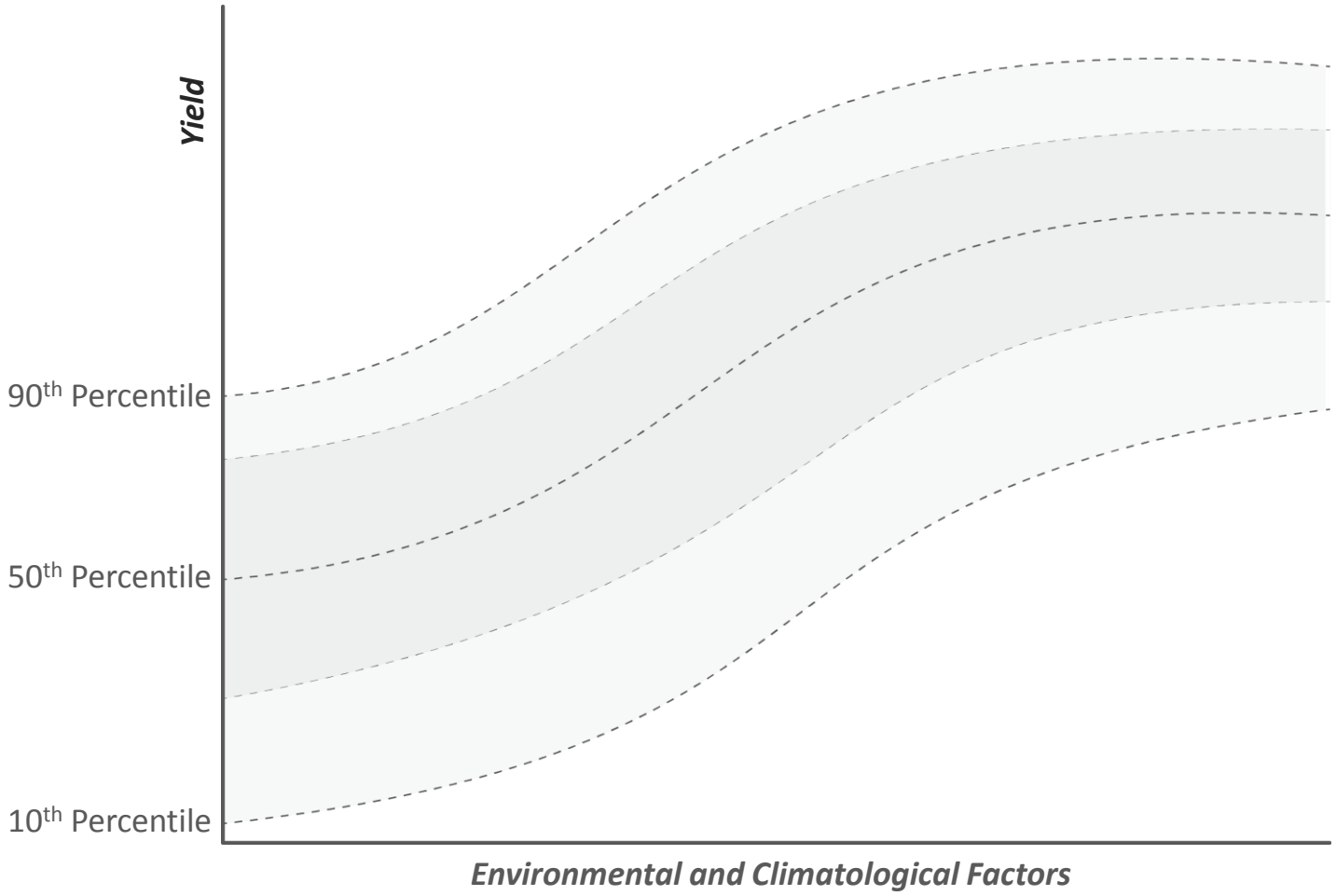
Business Solutions

Products:
- Seed
- Seed treatments
- Crop protection
- Fertilizer
- Biologicals

Practices:
- Tillage
- Crop rotation
- Irrigation water use
- Energy use
- Planting dates

Business Solutions:
- Accelerate R&D
- Redefine Marketing & Sales
- Create Prescription Services
- Sustainability Goal Setting
- Continuous Improvement
- Economic Decision Tools

Benchmark performance drives insight that inform strategic decisions



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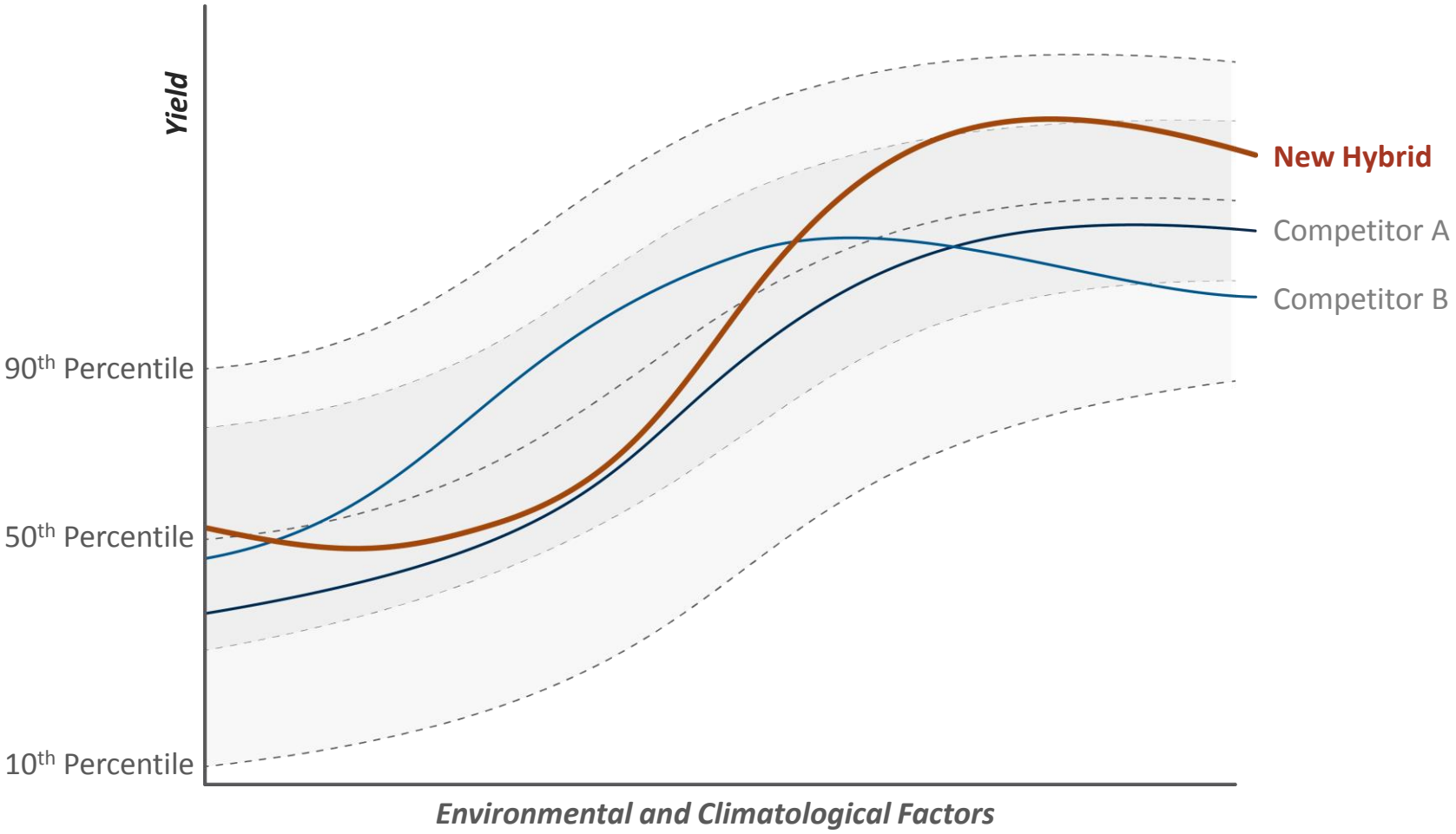

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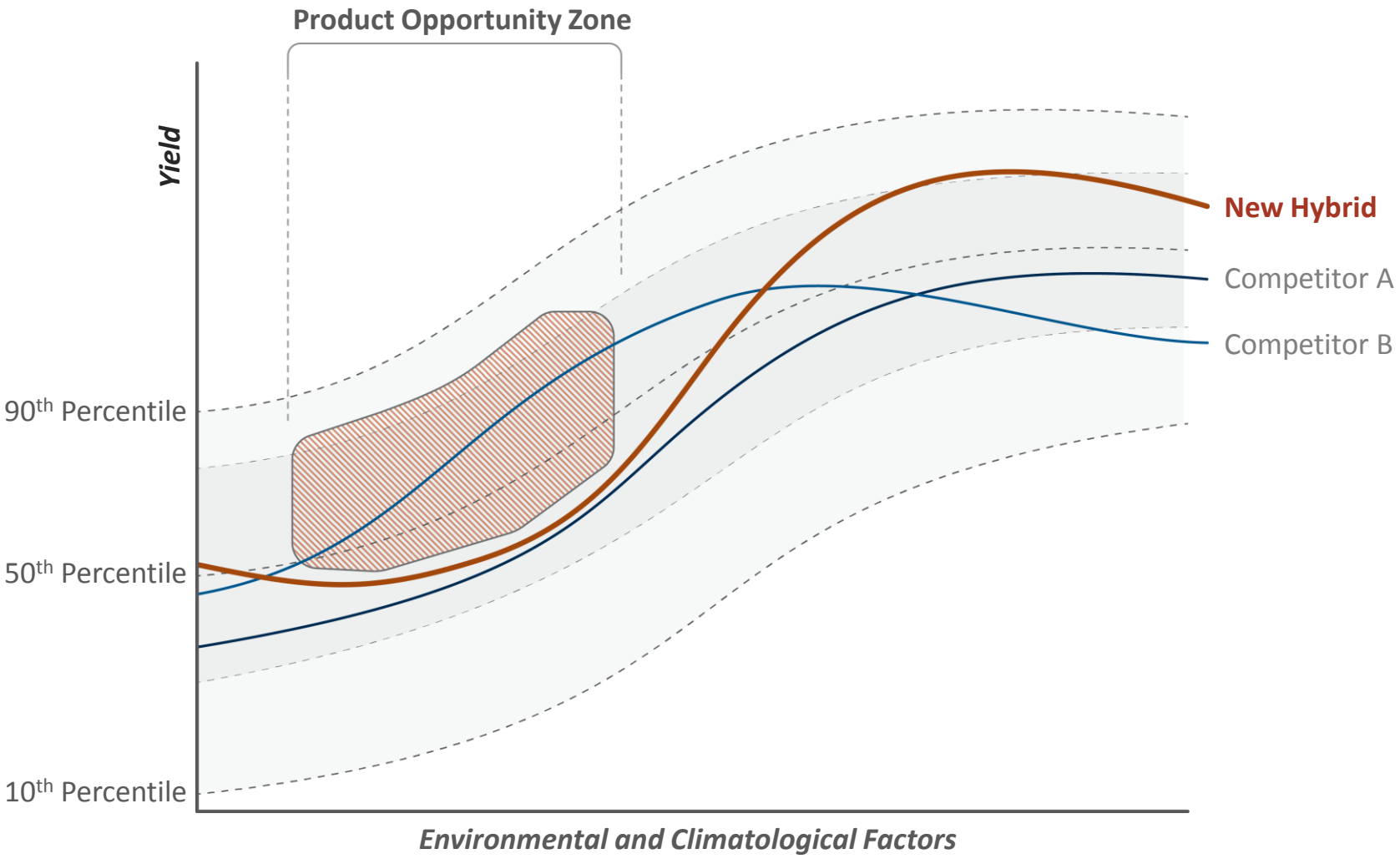

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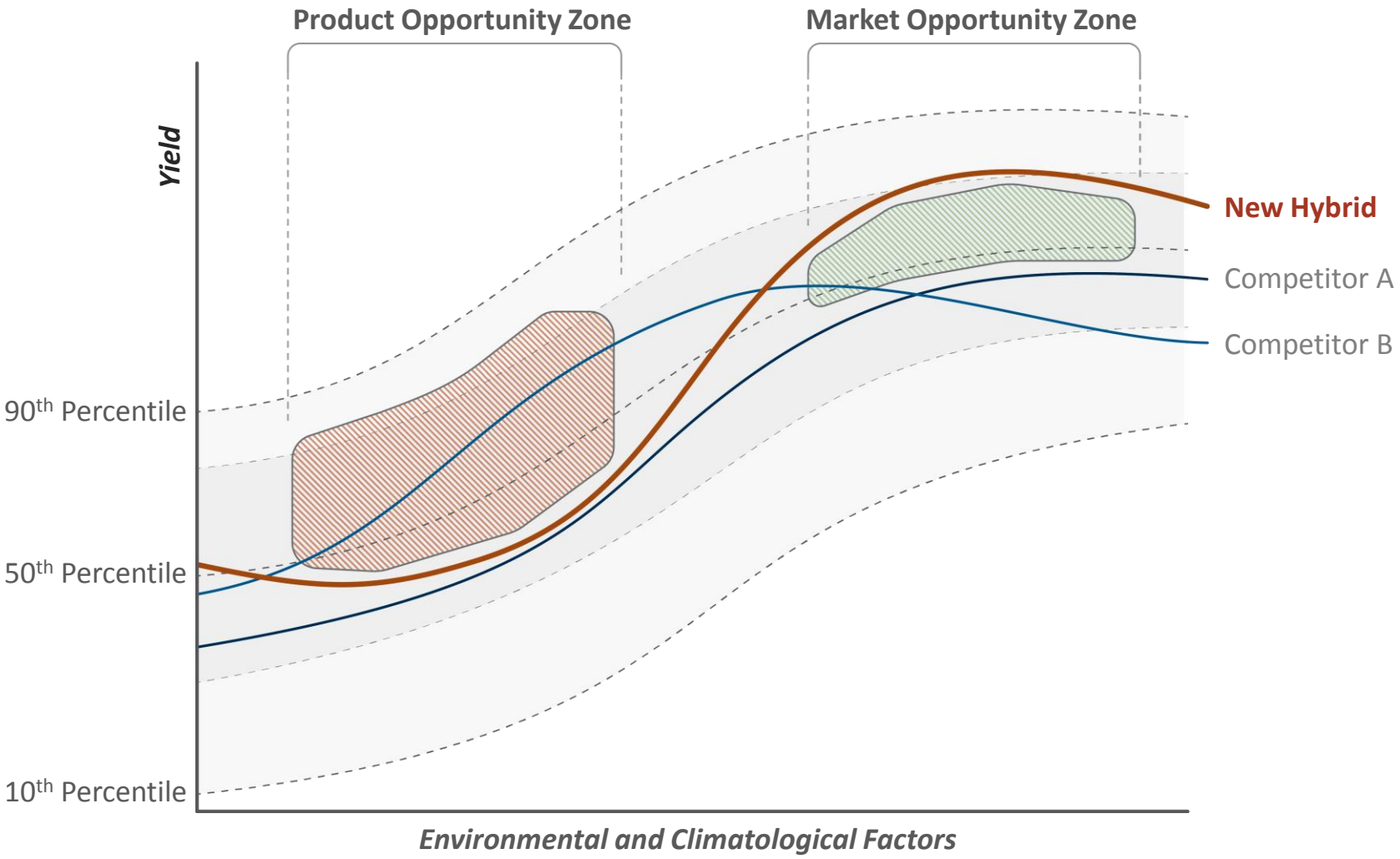

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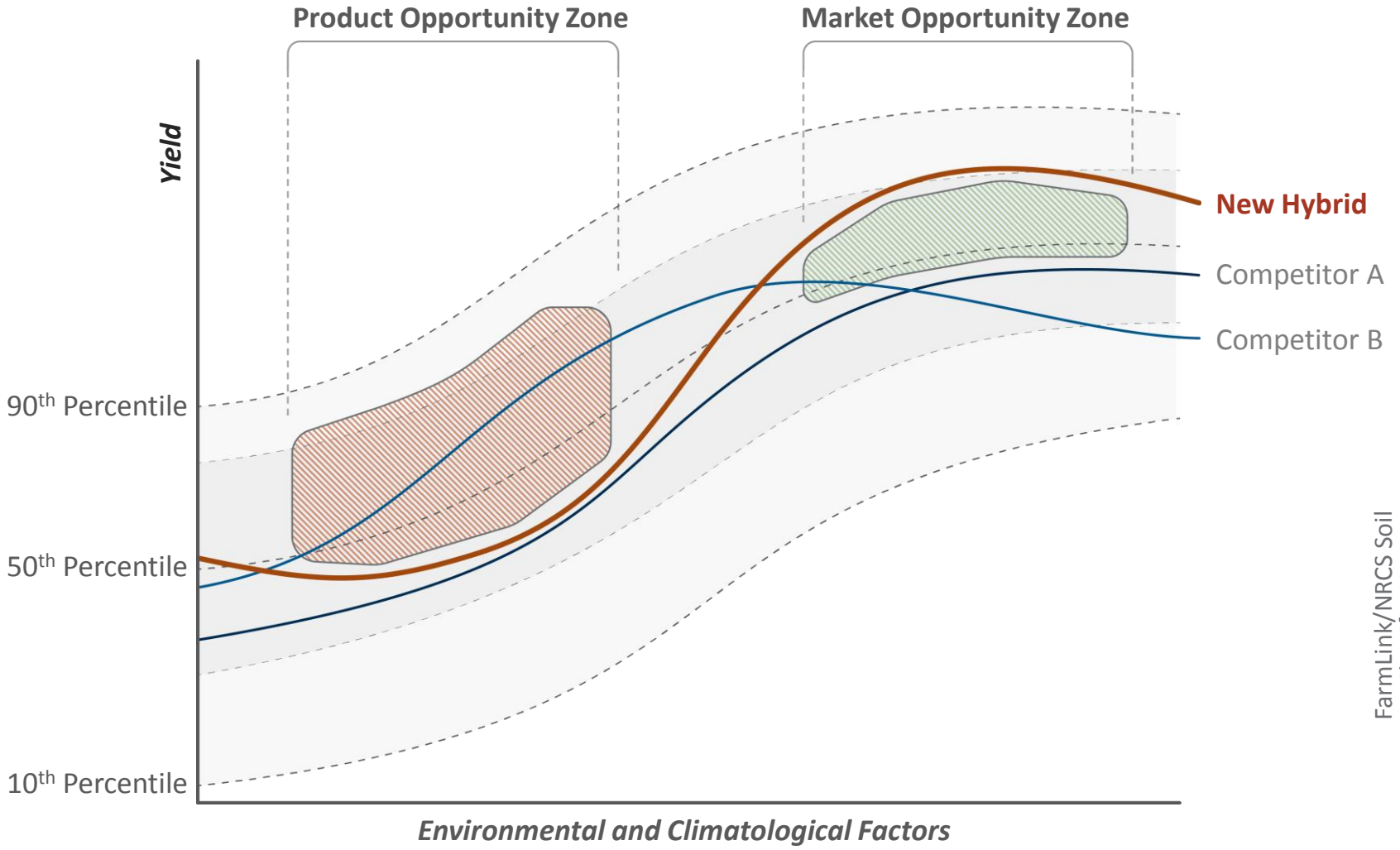
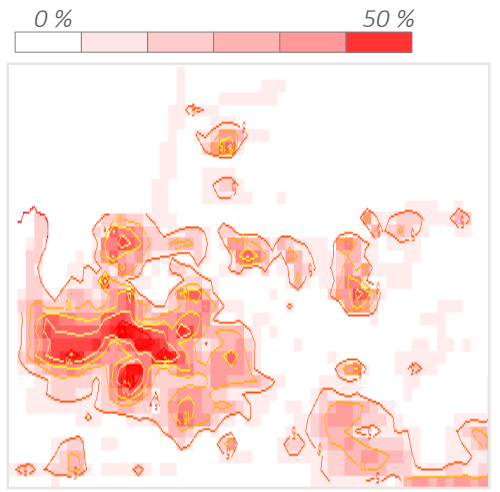
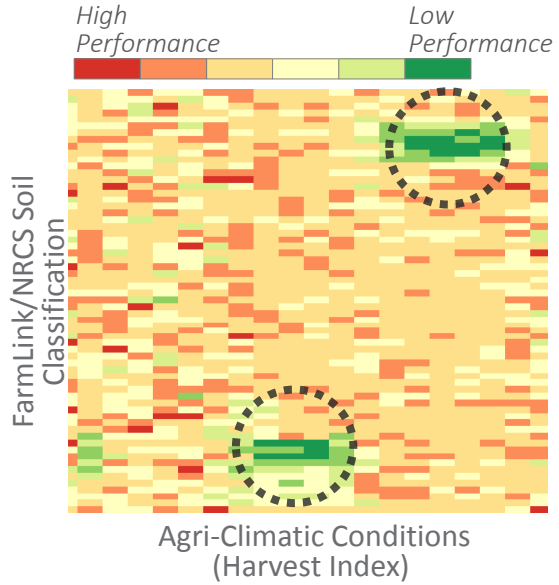




Field view of treatment variability



Performance Hot-Spots

FarmLink Advanced Analytics allows companies to enhance their agronomy solutions

Identify Agronomic Problem

↓

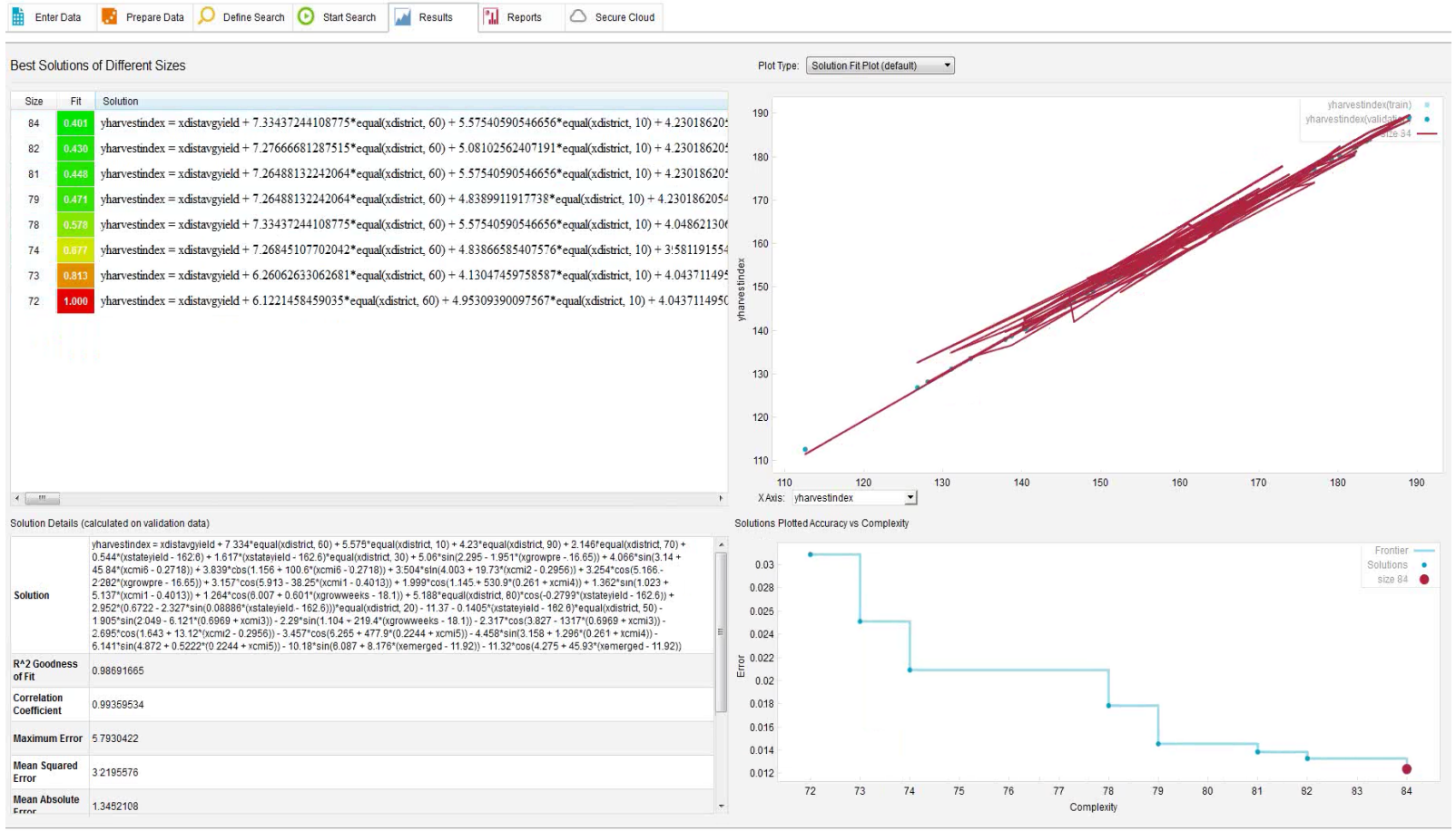
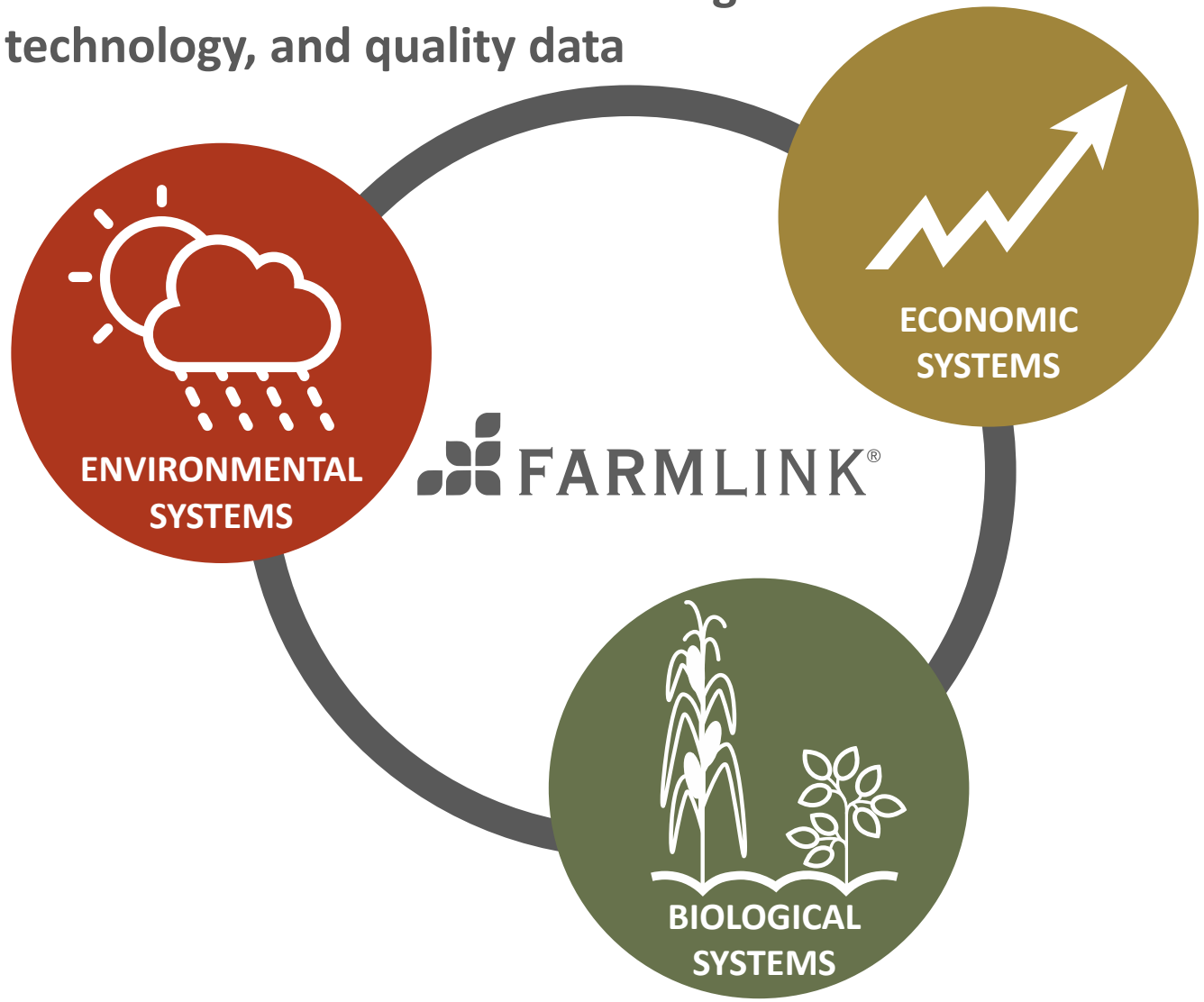
Review client data history, scope & format

↓

Setup Environmental/ Biological Response Model

↓

Advanced Recommendation Model



FarmLink is solving the most complex challenges facing agriculture now and in the future through data science, technology, and quality data