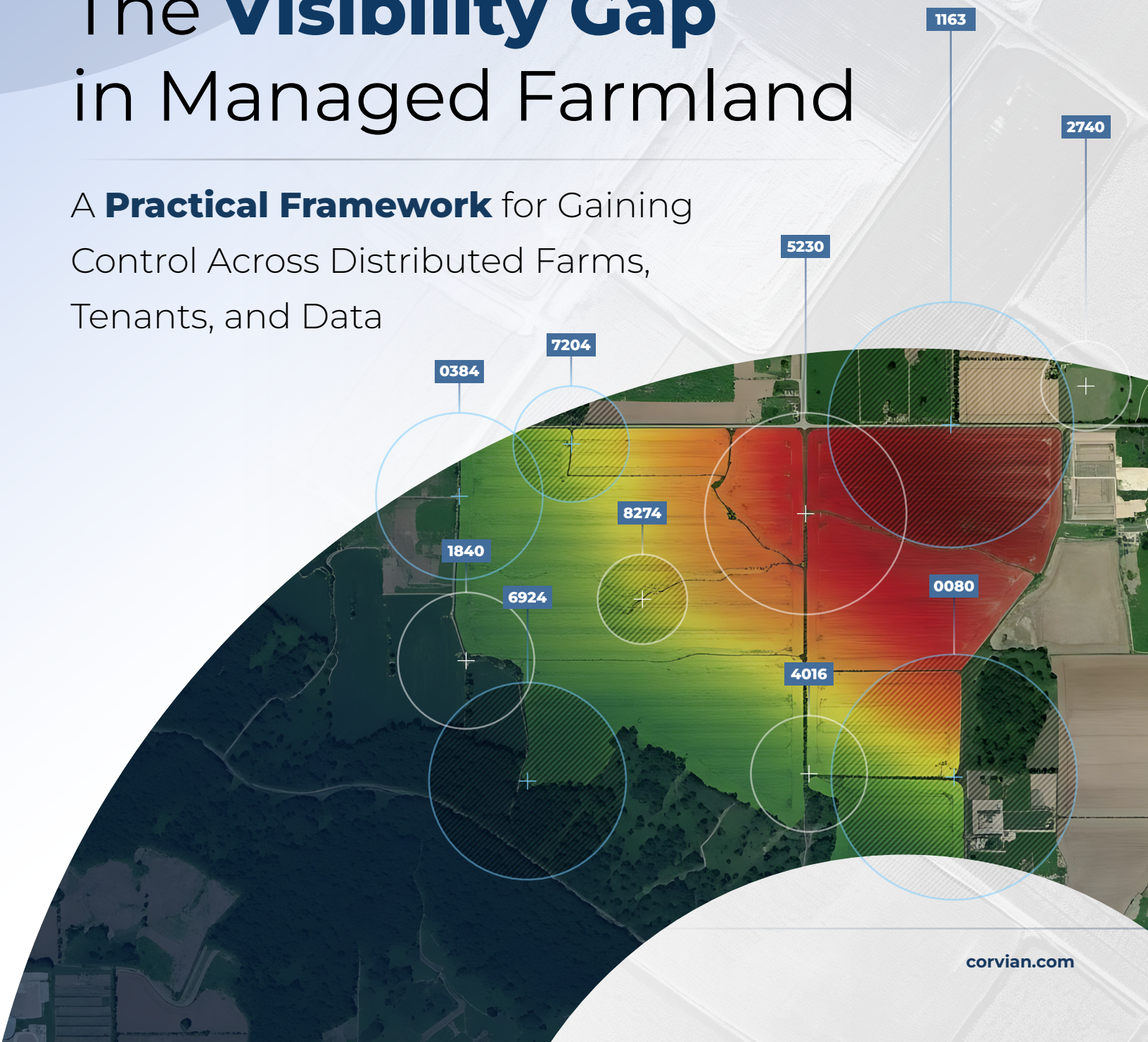




The **Visibility Gap** in Managed Farmland

A **Practical Framework** for Gaining
Control Across Distributed Farms,
Tenants, and Data



Farmland Portfolios Are **Expanding Faster** Than They Can Be Managed

Institutional ownership of farmland has scaled 3x over the past 15 years, with over \$30 to \$40 billion now allocated globally to the asset class as investors seek stable, long-term returns.

As portfolios expand, a new challenge is emerging. Owners are now responsible for performance across multiple regions, dozens of operators, and thousands of acres.

In many cases, there is still no consistent view of what is actually happening on the land.



Productivity
cannot be optimized



Sustainability
cannot be validated



Long-term asset value
cannot be protected

This guide shows how to gain clear, field-level visibility across farmland portfolios to improve performance, validate sustainability, and protect long-term value.

“As portfolios expand, a new challenge is emerging. Owners are now responsible for performance across multiple regions, dozens of operators, and thousands of acres.”

The Visibility Gap

Every day, farm operators make decisions in the field, how to apply inputs, when to act, and how to respond to changing conditions. These decisions are driven by experience and immediate priorities, often focused on protecting yield and managing short-term risk.

They directly shape productivity outcomes, but rarely extend beyond the field in a usable way. Between execution and oversight, information becomes fragmented, captured inconsistently, delayed, or missing entirely. For institutional landowners, this results in:

- Limited ability to verify how land is being managed
- No clear linkage between field activity and performance
- Reduced confidence in sustainability and ESG claims

Without a clear connection between field execution and portfolio insight, management becomes reactive and often incomplete.



Table 1. Field-level decisions drive performance—but without a structured way to capture and connect that activity, critical information is lost before it reaches the portfolio level.

The Last Mile Problem in Farmland Management

Farm operators generate large volumes of data through day-to-day activities—soil conditions, geospatial boundaries, input applications, crop plans, field observations, and yield outcomes. Capturing that data at the source, standardizing it across operators, and connecting it to enterprise systems remains a challenge.

Connecting that last mile, from field execution to portfolio visibility, is where consistency is lost. Over time, this creates a portfolio that is harder to compare, harder to improve, and harder to defend.



Operational Drift

Practices vary widely across operators with no consistent benchmark, leading to uneven performance across the portfolio.



Unclear Performance Drivers

Yield and financial outcomes can't be tied back to field-level decisions—making it difficult to optimize or scale what works.



Sustainability Risk

Without verified field data, claims around regenerative practices, input use, or emissions lack credibility and fail to meet the validation requirements needed to access government incentive programs.

A Practical Framework for Gaining Control

Closing the gap between field execution and portfolio management requires a purpose-built operating model that connects agronomy, field-level data, and enterprise systems into a single, consistent layer. This requires capturing, standardizing, and verifying field-level activity at scale.

The following framework outlines how leading organizations are doing this today.

1. Define What Needs to Be Measured in the Field

Identify the agronomic and operational signals that actually drive performance across your land. This includes:

- Soil health (organic matter, nutrients, variability zones)
- Crop plans and rotations
- Input strategies (fertility, crop protection)
- Yield outcomes over time

Without clarity on what matters, data collection becomes inconsistent and unusable at scale.

2. Capture Activity and Conditions at the Field Level

Ensure both what is happening and what is influencing it are captured in real time. This goes beyond basic record-keeping to include:

- Field-level weather data (rainfall, temperature, growing conditions)
- Soil and environmental signals (moisture, temperature, variability)
- Equipment and application data (rates, timing, passes)
- Operator actions (planting, spraying, harvesting, scouting notes)

Capturing this at the source, rather than reconstructing it later, is what makes the data reliable.

“
Without clarity on what matters, data collection becomes inconsistent and unusable at scale.
”

3. Bring Disconnected Data into One System

Field data lives in many places: operator logs, machinery systems, agronomy tools, geospatial files, and more. To make it usable, it must be unified:

- Geospatial boundaries aligned across systems
- Soil, weather, and application data connected to the same acres
- Operator-reported data structured into a consistent format

Without this step, data remains fragmented and difficult to use at the portfolio level.

4. Validate and Verify Field Activity

Move beyond self-reported data to ensure accuracy and completeness. This includes:

- Cross-referencing application data with field conditions
- Validating timing and rates against expected practices
- Ensuring completeness across all acres and operators
- Benchmarking fields and operator performance

Field-level validation turns data into something that can support:

- Buying and leasing decisions
- Sustainability reporting
- Audit and compliance requirements
- Risk mitigation
- Crop insurance & financing

5. Translate Field Data into Portfolio Insight

Connect what is happening in the field to what matters at the enterprise level. This means:

- Linking agronomic practices to yield and financial performance
- Understanding variability across operators, regions, and soil types
- Quantifying sustainability outcomes (input use, soil health trends, emissions proxies)

At this stage, field data becomes actionable, supporting decisions that improve performance and protect long-term asset value.

“

Real-time visibility into operations is one of the strongest drivers of improved asset performance in distributed portfolios.

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Where Field-level Visibility is Delivering Value

Organizations that have invested in connecting field-level data to portfolio decisions are seeing measurable benefits:

- ✓ **Improved operational consistency**
Greater alignment across operators and regions.
- ✓ **Clearer performance insights**
Ability to link field activity to yield, input efficiency, and financial performance.
- ✓ **Stronger sustainability reporting**
More credible, data-backed validation of practices and outcomes.
- ✓ **Better risk management**
Earlier identification of underperformance and variability across the portfolio.

What **Institution Owners** Should Look for in a **Technology Partner**

Corvian, a Fairfax Company, was built to solve a problem most platforms do not address, connecting field-level execution to enterprise decision-making across agriculture. Designed to operate at scale across hundreds of thousands to millions of acres, Corvian's platform integrates seamlessly with existing enterprise systems, ensuring alignment and functionality within an institution's broader technology stack.

Uniquely tailored for agricultural enterprises, Corvian delivers the field-to-portfolio visibility and operational infrastructure that institutional landowners need to manage farmland portfolios, validate performance, and meet sustainability and reporting requirements.

The platform provides a clear, consistent view of how land is managed—enabling:

- Visibility across acres, operators, and regions
- Verified data to support performance and ESG reporting
- Greater consistency in execution and long-term land stewardship



Why Corvian?

100M+

Acres of Data
Processed

36

AgTech
Patents

8M+

Acres Digitized for
Carbon Programs

50+

Data Models

Schedule an Executive Briefing with Corvian today.

Unseen field activity creates unmanaged risk and missed value. Book an executive briefing to understand the impact on your portfolio.

Book a Meeting

calendly.com/corvian

Contact Us

partners@corvian.com

Learn more

corvian.com/managed-farmland/





Partnership in action:

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