

IDC Manufacturing Insights: Precision Agriculture

Strategic Priorities

PROGRAMS

USE CASES

Digital Farming



Farming Optimization

Insight-Guided Farming

Farm Data Digitization Platform

Predictive Yield Optimization

Benchmarking

Farm Operations Optimization

Resource Management

Operational Decision Support

Digital Native-Designed Farm

Compliance Management

Integrated and Collaborative Operations

Operational Ecosystem

Collaborative and Autonomous Operations

Autonomous Farming

Digital Twins

Next-Gen Safety



Farm Safety

Farm Surveillance

Process Condition Monitoring

Process Self-Inspection

Enhanced Personal Safety

Connected Safety Wear

Virtual Presence

Augmented Training

Connected Assets



Smart Assets

Self-Healing Assets

Equipment Health Communication

Asset Instrumentation

Strategic Asset Management

Predictive Analytics

Asset Tracking

Augmented Maintenance

Coordinated Maintenance

Integrated Asset-Centric Maintenance

Digital Inspection

Asset Performance Management (APM)

Sustainability



Environment and Sustainability

Sustainable Energy Management

Farmland Rehabilitation

Additives Application Optimization

Irrigation Management

Food Safety

Food Tracing

Digital Safety Management

Quality Attributes Management

Precision Agriculture Digital Roadmap



HORIZON 1

Use cases that are deployed today

HORIZON 2

Use cases that are being incubated

HORIZON 3

Use cases that imagine the possibilities