



WHAT ADVANTAGES CAN TECHNOLOGY BRING IN A DOWN YEAR?

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conservis

"Federal data shows **bankruptcies** in major farm states last year rose to the **highest level in at least 10 years.**"

-AgWeb

Feb 08, 2019

Farm debt in 2019 is projected to be a **record-high \$416 billion**

-Farm Bureau Market Intel, October 30, 2019

"Net **farm income six years ago was \$132 billion.** Take away government payments **it's down to \$69 billion.**"

-NPR November 10, 2019

"U.S. **stock market at record** but farm **bankruptcies at highest since 2011**"

-Market Watch, November 17, 2019

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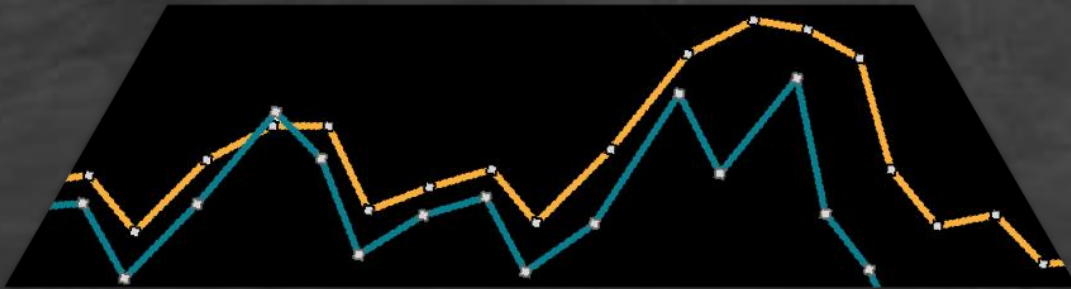
FARMING: A MOMENT OF DRAMATIC CHANGE



Technological tipping point



Sustainability, now standard



Profitability challenged

AGTECH LANDSCAPE 2019



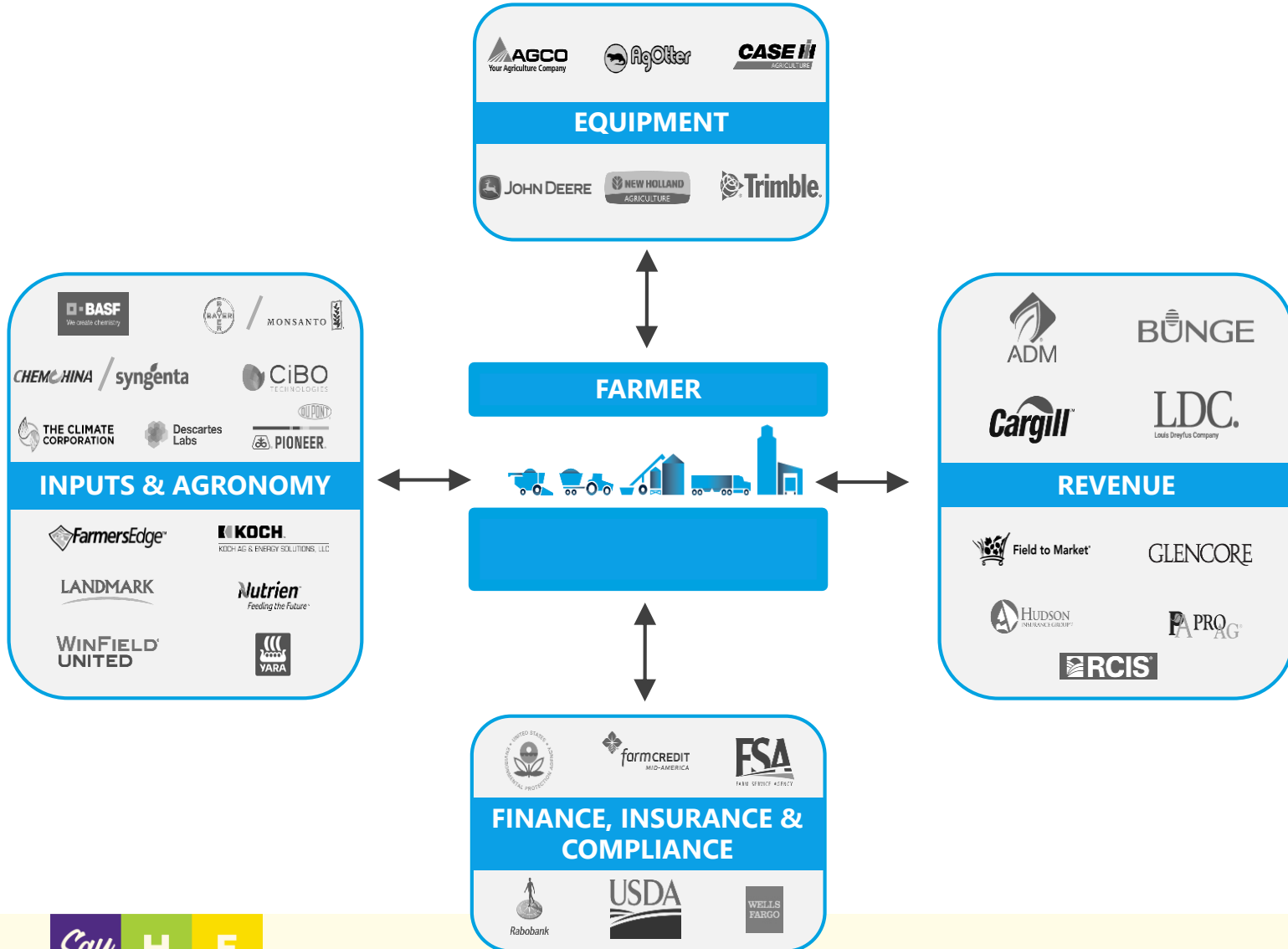
IN-FIELD SENSORS & SYSTEMS

Field Monitoring Sensors & Solutions SENSOTERRA, Phyttech, itk, Faas, semios, Aker, KEEDA, AGER, pvcno, DTN, CROPTIMAL, See Tree, ARABLE	IoT Monitoring Platforms FarmQA, AGRISOURCE DATA, FARMOBILE, Farm Solutions, UPTAKE, WISECONN, PRECISION KING	Crop / Farm Management Software solinftec, CropIn, agrivi, CropTrak, singshot, AGVOICE, Agworld, AGR TRACKING SYSTEMS, smag, Aegro, AgDNA, AgKonec, FARMERS EDGE, ISAGRI, AGRINAVIA, FARM IQ, FARMLOGIC, ExactFarming, Farmbrite, FarmLogs, Farmflo, TRUTERRA, scicrop, ADVISOR, Premier Crop, Decisive, Agroptima	Automation/ Robotics abundant, ASI, BEAR FLAG, ecorobotix, ROWBOT, ATC, HARVEST, TARTAN SENSE, NOIO, RoboticsPlus, HARVEST CROO, Dynium Robot, agerris, SAGA, Tortuga, EARTHSENSE, AGRO	Next Gen Logistics SENSOR TRANSPORT, samsara, NanoThings, TRADELANE, MESH KOREA, WAXCOOL, Jumbotail, LUCUS, Lineage, 八通六臂, fliit, loadsmart, Frey	Quality Mgmt / Compliance RedLine, rizepoint, TRAQTION, Coinspect, ICIX, TracoGains, Lotpath, iFood	Yield Forecasting AGROGRAPH, AGRIDATA, FruitSpec, logiclabs
Soil Sensing / Analysis teralytic, STENON, FALCON, AGRON, SoilCares, OneSoil, SOILOPTIX	Precision Irrigation HydroPoint, Agro, wildeye, Groguru, Tevatronic, tule, cropx, farm(x), WaterBit, METAFIM, CropMetrics, HORTAU	Processing Technology QIFY, PARSCALE, 915, SOFT ROBOTICS, ASEPTORAY, AGRI-NEO, WECO, InspiraFarms, Blendhub, PROVENIR	Freshness Control bluwrap, Cambridge Crops, hazel technologies LLC, EOLUMA, wisepack, APEL SCIENCES	Freshness Control tsenso, metiora, FreshSurety, escaVox, Intellogistics, controlant, LETTUCE BOX, INC., ColdPICK, Infratab	ERP Specialty AgCode, Prophet, FAMOUS, LINKFRESH, ExtendAg, justfoodERP, SPOKANE SOFTWARE	Supply Analytics DecisionNext, Trellis, Engage3, Athena Intelligence, PRAEDICTUS, eka, cmdty, edce, supply shift, agtools, sourcemap
Insect Sensing / Monitoring The Bee Corp, Aerobotics, BeeHero, trapview, AgProAlert, beehives, FaunaPhotonics, Farmapp, ApisProtect, FARM DOG	Water Monitoring PowWow, Swiim, Waterfind, AQUAOSO, WEXUS, RETrac	Digital Marketplaces YAGRO, TILLABLE, hello tractor, agricult, AgroStar, AgVend, esoko, HARVEST PORT, ADIAN, Agrofy, TRACTOR ZOOM, FarmTrade	Cold Chain Monitoring FreshSurety, escaVox, Intellogistics, controlant, LETTUCE BOX, INC., ColdPICK, Infratab	Food Recovery FULLHARVEST, FoodMaven, WISErg, COPIA, CROPMASTER, Lactaps, SPOILER ALERT, CSS	ERP Commodity agrimaster, conservis, EFC SYSTEMS, AgVision, Granular, magnify, CountrysideData, COMPASS, agriflo, Agvance, Agri, adnovo, CULTURA	Crop Marketing / Trading Platforms grainbridge, BUSHEL, ninjacart, FARM'D, FARMpay, FARMLEAD, agree, fruitsapp, AGRONO METRICS, crofarm, The Seam, MERCARIS, Graindex
Precision Applications zasso, AgOtter, edote, TRACMAP, DROPCOPTER, RANTIZO, AUGMENTA, KIWI, ON TARGET, Nileworks, Precision Planting	Labor Management GANAZ, PAGO, agriculdata, HY, AgDraft, POKTRACE	Post-Harvest Monitoring INTELLIFARMS, PalleTech, TELESENSE, scio, AGNEX, Centaur, INTELLO LABS, WIVBE	Post-Harvest Monitoring INTELLIFARMS, PalleTech, TELESENSE, scio, AGNEX, Centaur, INTELLO LABS, WIVBE	Food Recovery FULLHARVEST, FoodMaven, WISErg, COPIA, CROPMASTER, Lactaps, SPOILER ALERT, CSS	ERP Commodity agrimaster, conservis, EFC SYSTEMS, AgVision, Granular, magnify, CountrysideData, COMPASS, agriflo, Agvance, Agri, adnovo, CULTURA	Finance & Insurance PRODUCE PAY, FarmDrive, trAlve, Samuelli, STABLE, AGVESTO, FarmOp, TRUACRE, GROWERS EDGE FINANCIAL

VALUE CHAIN ENABLERS

Blockchain arc-net, agri digital, xpansiv, GRANTAIN, bekt, GRAIN, AGRICHAIN, bart	Food Safety Detection MICROSENTECH, phylagen, METEKTEC, CORVIUM, NOGLYZE, Clear Labs, ASTRONA, ProteoSense, SMART TECHNOLOGIES, SNAPDNA, INSPECTO	Food Safety Track & Trace trace register, safezones, FoodLogIQ, PROVISION ANALYTICS, HarvestMark, rfxcel	Integrated Solutions (Platform) FARMERS, DeHaat, indigo, stellapps
Data Aggregators aWhere, AGRALOGICS, AGRIAN, FarmMapper, AGI, ((centricity)), LABELINSIGHT, FARM MARKET ID, AGDATA, skylineweather, LAND IQ, COMS, onLage, GREENBOOK, DTN	Data Analytics (Platform) HFG, ClearAg, BOOST, DENSON HILL, DNK, prospera, CIBO, LISTENFIELD	Imagery Analytics urtheCast, Orbital Insight, SLANTRANGE, ceres, impact, GAMAYA, Terraviva, plintix, TARANIS, FlareSat, OneSoil, planet, elio, impact vision, intelinAir, formshOts, PRECISION	

ECOSYSTEM IS RAPIDLY CHANGING



2019 – Challenging Year

- Wet springs, early snows
- African swine flu
- Trade uncertainty
- Commodity prices

Changes on the Farm

- Yield focused efforts failing
- Increasing debt
- Younger farmers
- Maturing digital ecosystem



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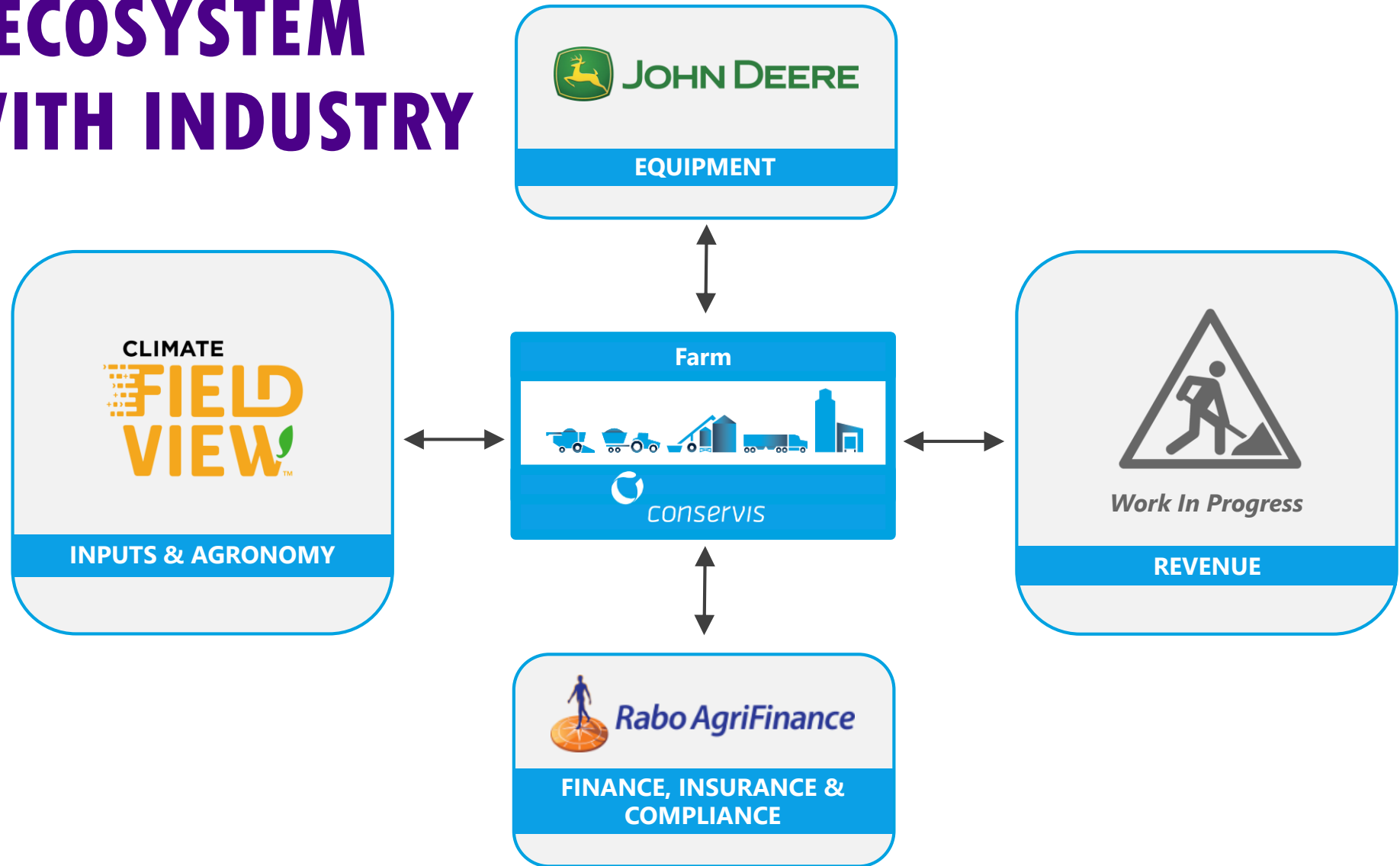


**How confident are you in
understanding your direct
field costs?**

**How about traceability to
get top line revenue?**



CONSERVIS ECOSYSTEM BUILDING WITH INDUSTRY LEADERS



FIELD AND FARM DATA MUST BE LINKED

Solving for agronomic success or financial accounting in isolation will not be enough

Agriculture has historically focused almost exclusively on maximizing revenue, without regard to costs or margins.

Managing agronomy to maximize yield

- Field Boundaries
- Soil Maps & Tests
- Planting & Yield Maps
- Irrigation
- Fertilization
- Weather
- Aerial Imaging

Manage Farm Business (Finance)

Accounting for what happened

- Lending & Lease Terms
- Vendor Data
- Equipment & Asset Data
- Inventory Records
- Pricing & Sales Records

Integrated Farm Management Systems

Manage Field Operations (Agronomics)



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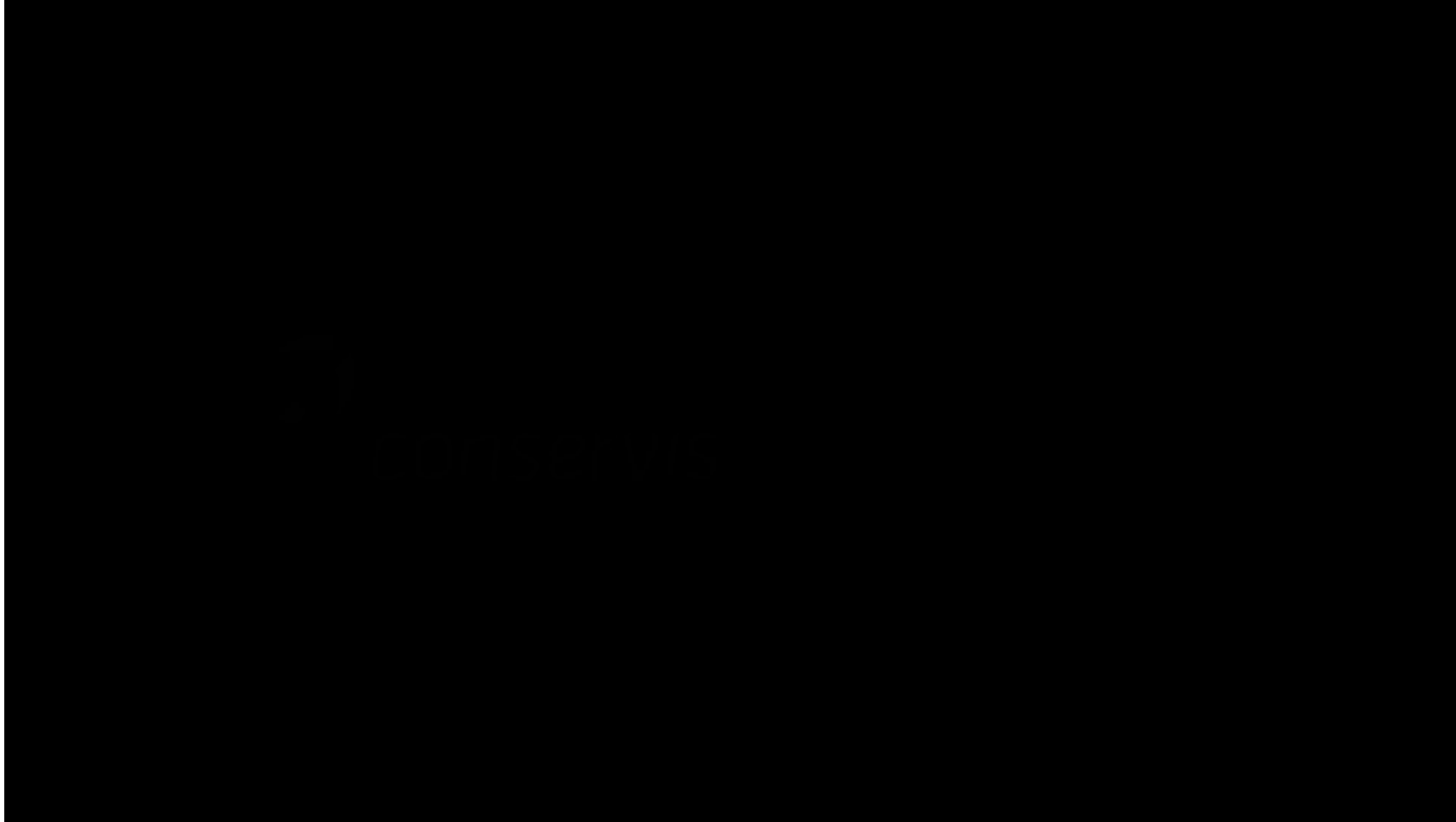


WHAT DOES SUCCESS LOOK LIKE?

Technologies help farmers better understand their cost of production



BATES NEXT GEN FARMING



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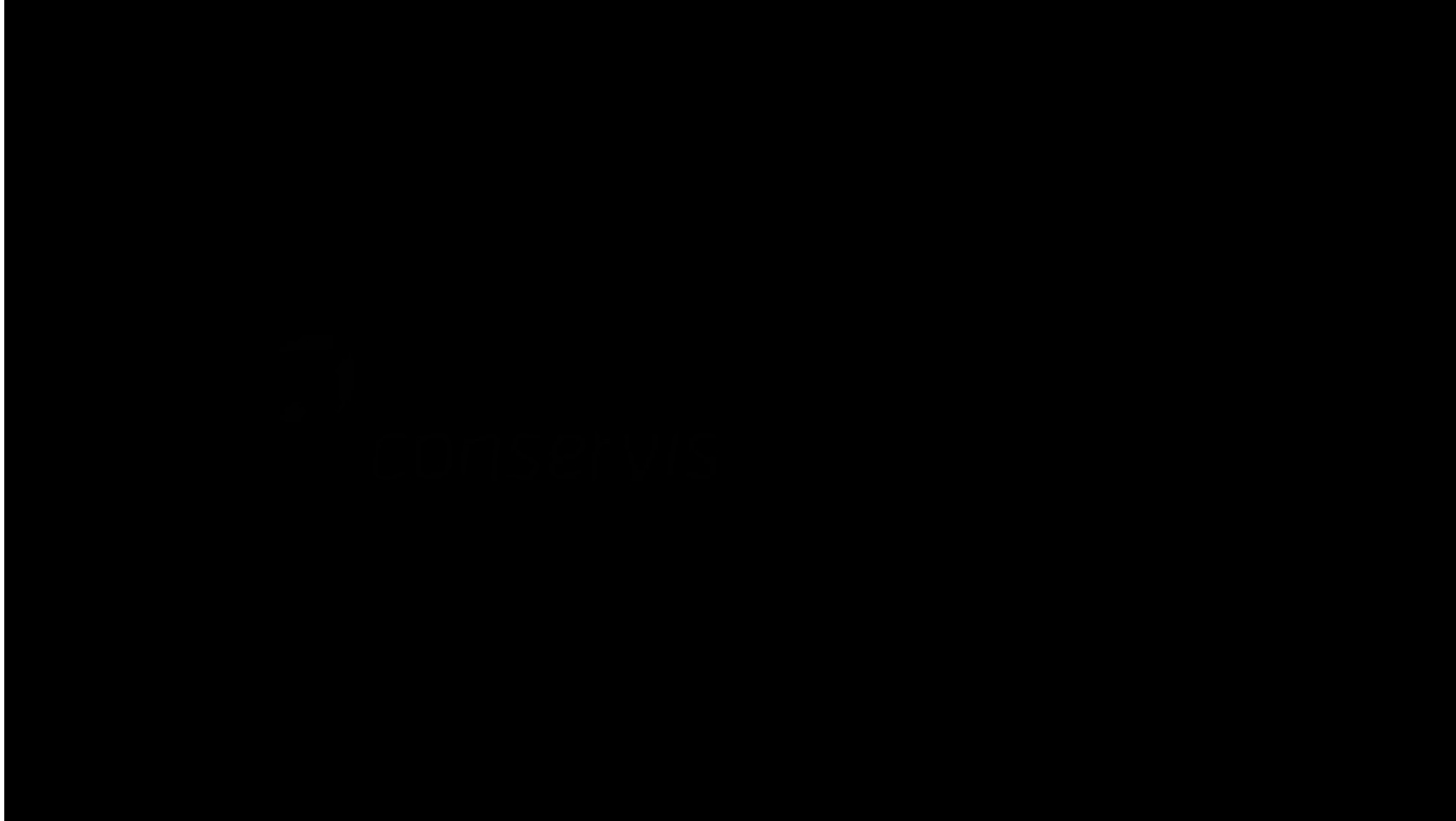
receiving analysis transmission communications IDENTIFICATION packing assembly setup TEST control TRACEABILITY quality service STORAGE process SATISFACTION DATA method trace diagnosis service efficiency



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SPROULE FARMS - GLOBAL GAP TRACEABILITY



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You've got more than enough field data

Is it telling you what you need to know?



What part of this field is losing money?

Did my seed variety give me the expected ROI?

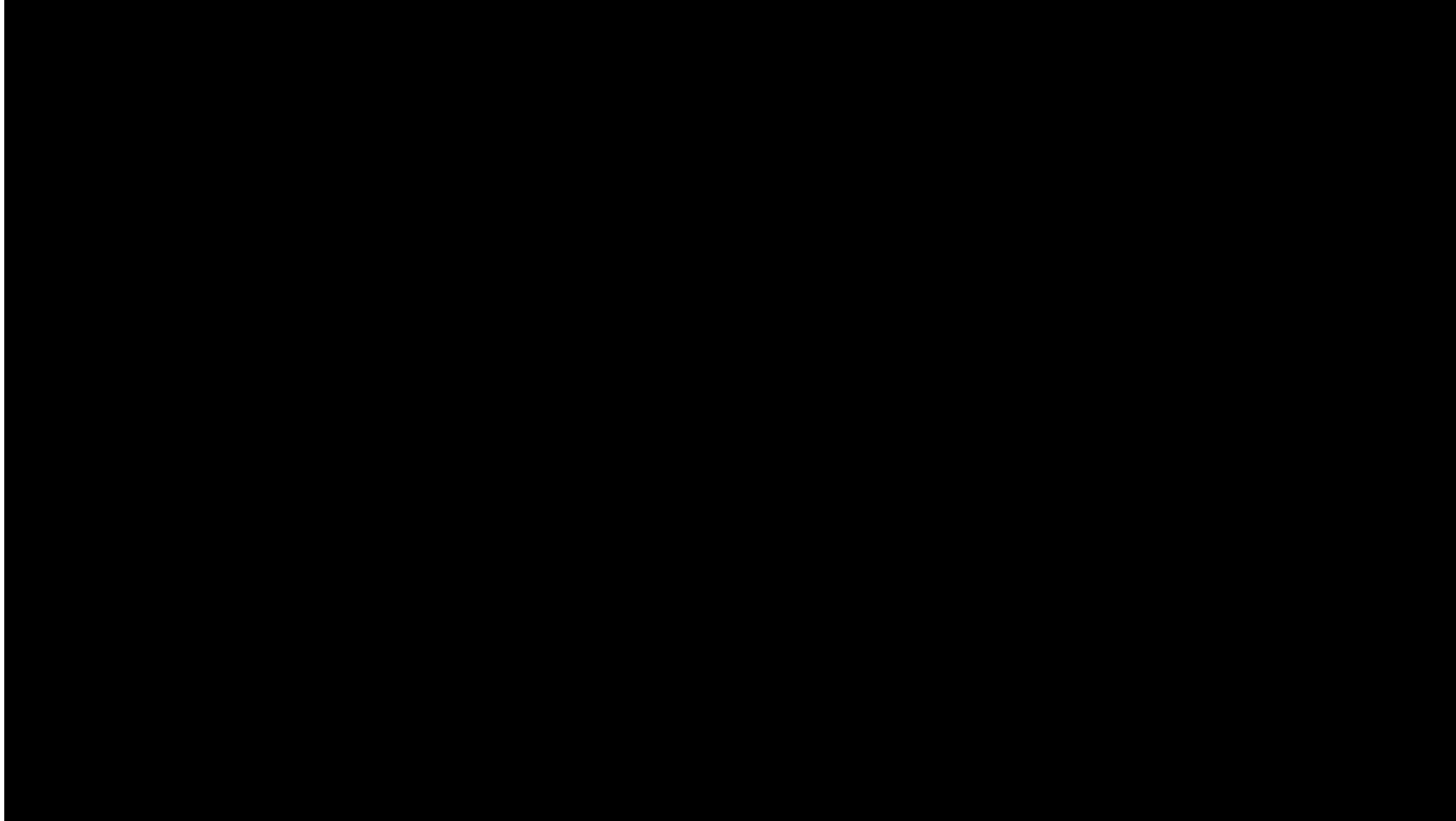
But is that data telling you the full story?

Which seeding rates are most profitable?

Are there areas of this field not worth planting?

ZONE ECONOMICS

Your cost on your land – Your potential profit




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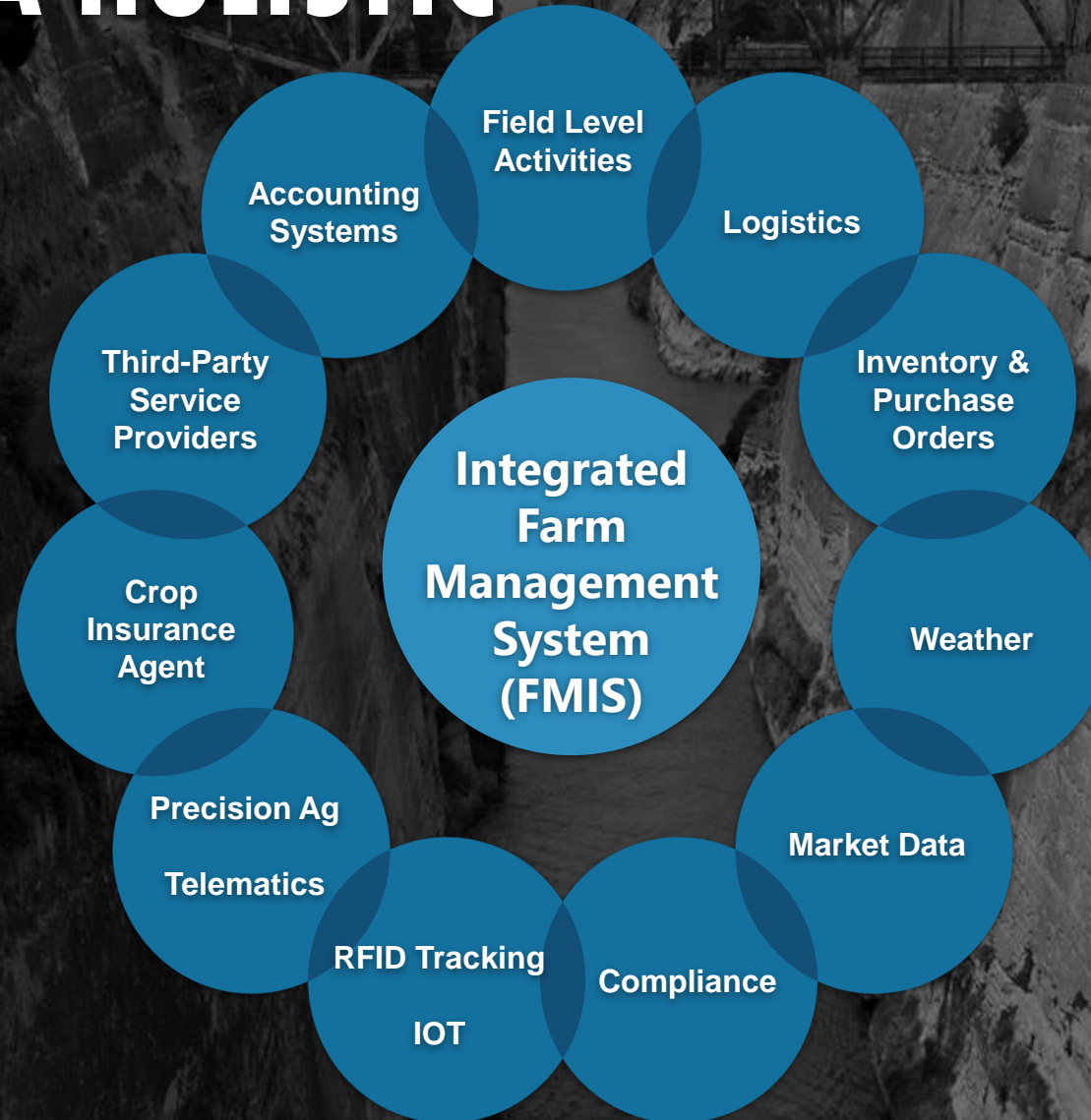


By targeting areas of improvement, farmers can better determine how to allocate their resources for a more productive, environmentally sustainable system

A man wearing a white t-shirt, blue jeans, and a dark cap stands in a field of green crops, looking out over a vast landscape under a bright sky. The text is overlaid on the right side of the image.

Farmers can make better
business decisions when they
have a holistic view of their
operations...

INTEGRATED SYSTEMS, A HOLISTIC VIEW



Enables strategic decision-making and planning, drives long term sustainability:

- Economic
- Production
- Environmental
- Traceability
- Benchmarking

SOLVING FOR AGRONOMIC SUCCESS OR FINANCIAL ACCOUNTING IN ISOLATION WILL NOT BE ENOUGH

Agronomics

Hundreds of point solutions solve targeted pain points.

Nearly all focused on maximizing yield.

Accounting for What Happened

Integrated Farm Management System (FMIS)


Managing Field Operations

Business

Accounting and office software address bookkeeping and recordkeeping.

Very few are linked to field data.





“I’ve had a relationship with Rabo AgriFinance since 2015 and with Conservis since 2014. Both have changed how we think about banking and capturing our data as far as inputs and harvest. I want to know on a daily basis if we have an issue on a meter or whatever, because it could financially be a big deal.”

Lynn Martz
Owner
Larson Farms - IL

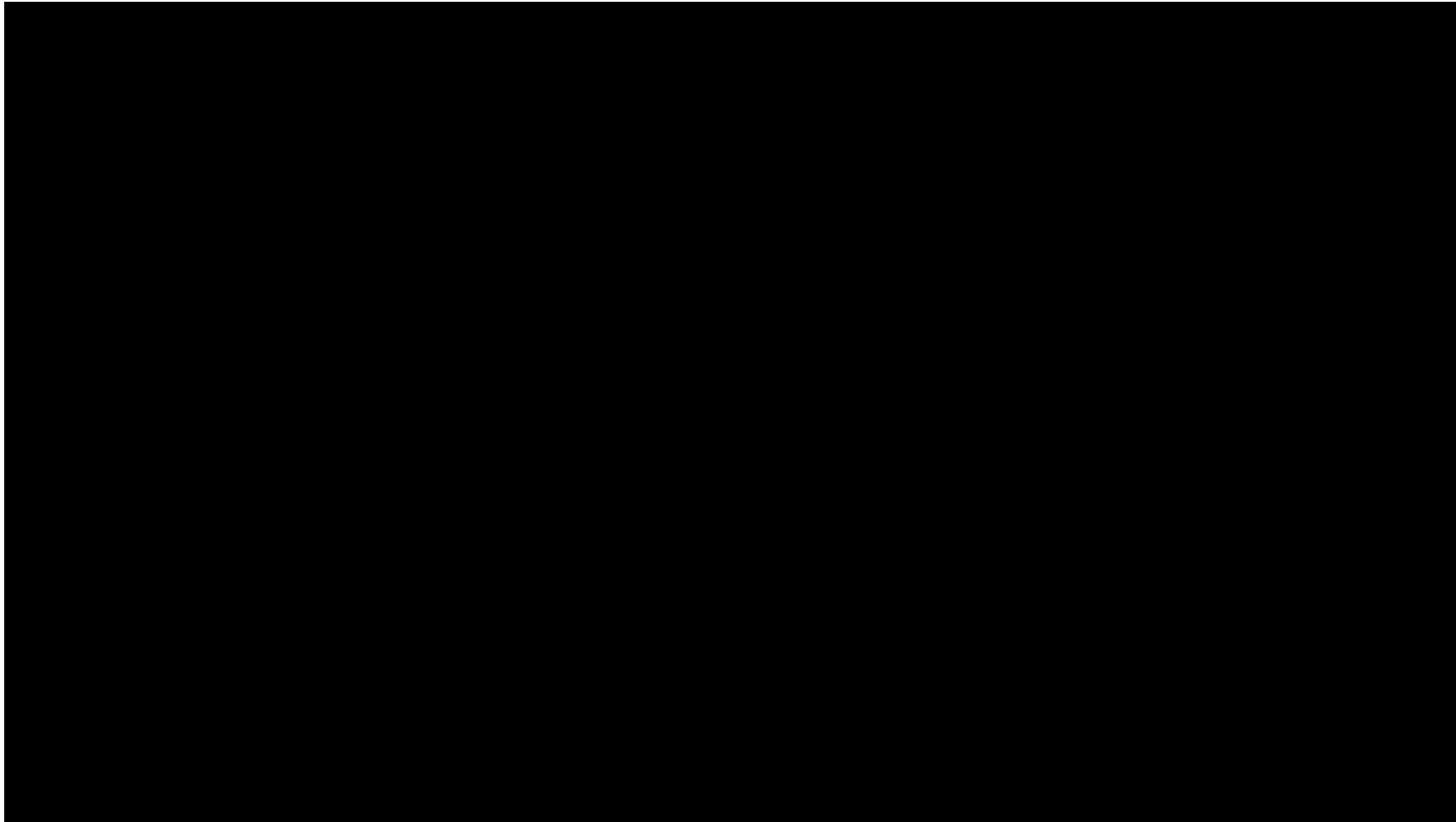
[Video](#)



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TRUSTED ADVISOR RELATIONSHIPS AND DATA



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Technology: setting up success for the next generation



YETI RAMBLER



Thanks,
Dawn

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