Accenture Technology Vision 2014 for Agribusiness

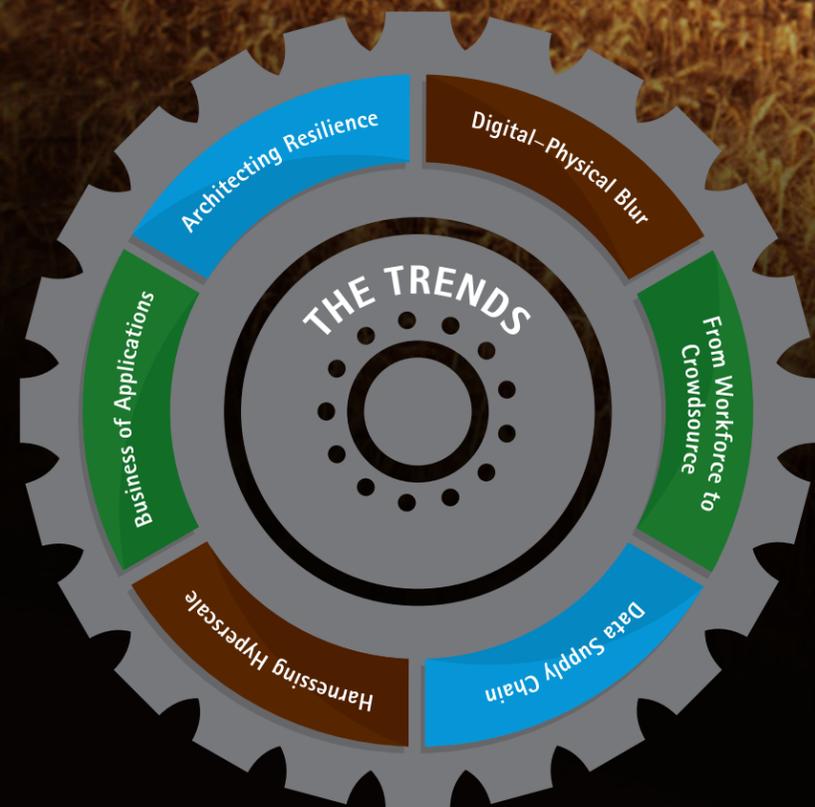## Grow Your Digital Enterprise

High performance. Delivered.

Technology to power your business outcomes

We don't have to tell you that technology is rapidly changing and offers tremendous potential to help you keep up with the growing demand for agricultural products—the need to feed, fuel and fortify 9.6 billion people around the world by 2050.[1] But we want to help you imagine the possibilities and the impact that the latest technology can have across the agribusiness value chain, and how you can maximize its use to more profitably compete, improve margins, better manage producer relationships and serve your customers.

Let's explore the next wave of technology trends that agribusiness leaders need to act on in the next three to five years as you continue the journey to becoming more agile and efficient digital enterprises. In many ways, digital is unlocking a renaissance for large companies, allowing you to reconnect with what made you industry leaders in the first place.

THE TRENDS

- Architecting Resilience
- Digital–Physical Blur
- From Workforce to Crowdsource
- Data Supply Chain
- Harnessing Hyperscale
- Business of Applications

Plow through your biggest challenges using emerging technology

HUMAN AND ENVIRONMENTAL CHALLENGES

World population growth outpacing food production

Declining availability of arable land

Environmental pressures on use of fertilizers and pesticides

Pressure to reduce use of natural resources and leverage renewable energy

ACCESS TO TECHNOLOGY AND INFORMATION

Lack of access to critical agronomic information

Varying levels of mobile connectivity for workers in remote areas
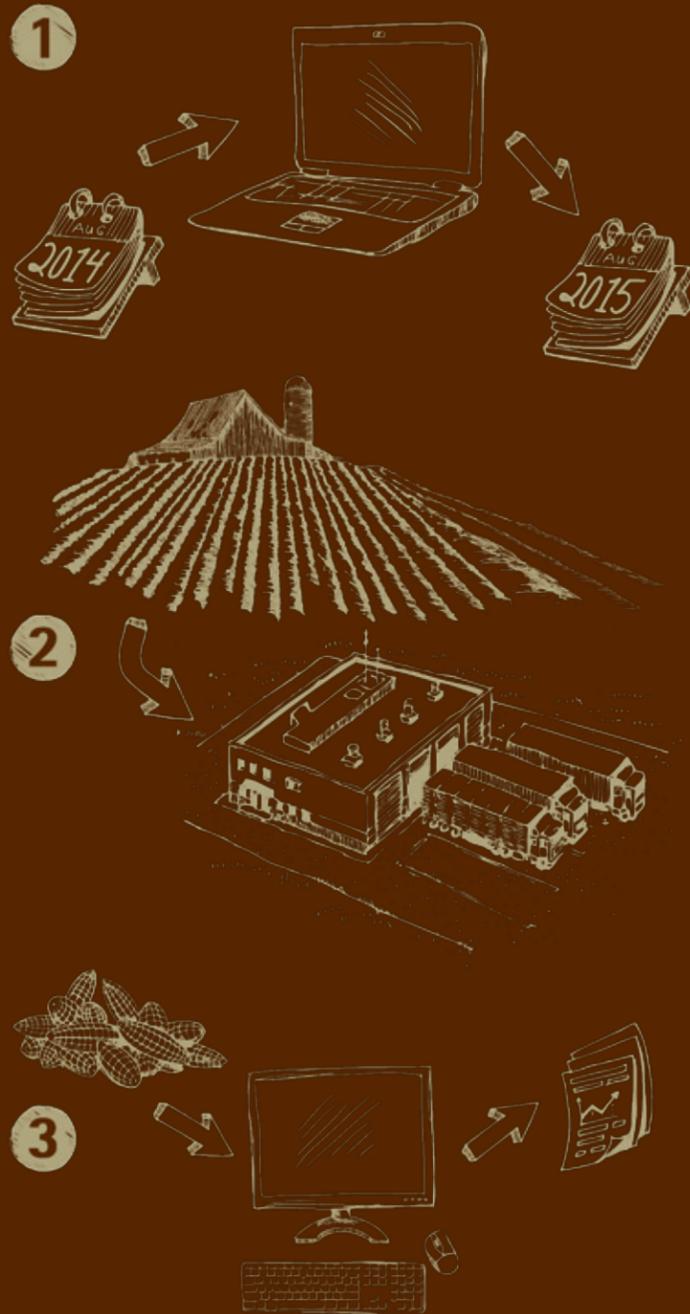
Lack of automation technology

COST AND SUPPLY CHAIN CHALLENGES

Rising costs of energy, transportation and inputs

High equipment capital and operational expenses

Challenging logistics in emerging markets

Lack of transparency in the food supply chain is challenging food safety

Data supply chain

Harvesting insights from across the value chain

Imagine a tech-savvy processor who develops his production calendar and warehousing capacity for the next year based on demand data gathered through a data supply chain.

What if producers could grow only what these processors need? If demand data shows an increased appetite for a special soybean, that producer can focus on soybean production—ultimately improving their profit margins.

If these producers supplied detailed data on their last soybean farming cycle—what seeds and fertilizer they used, when, what procedure, what the weather and soil conditions were, and what the final yield was—seed, fertilizer and crop protection companies could focus their R&D efforts to deliver the best possible product. This information from producers could also inform processors' production and transportation schedules and it could give commodity traders valuable insight to help them fine-tune their hedging strategies.

Like most industries, agribusiness has a wealth of data available to improve business decisions, but the data is either not accessible, data is housed in silos, or it doesn't flow through the enterprise and value chain to increase visibility and make the greatest impact.

Creating a data supply chain will allow the massive amounts of data available—yield, herd health, pricing, weather, soil conditions, product performance, maintenance needs, workforce and more—to flow into systems so it can be consumed in an actionable way. Using technology and automation to make the right data available for users at the point of need will inform decisions to increase effectiveness.

A data supply chain can help sectors across the agribusiness value chain to tackle their most pressing challenges. In August of 2013, Accenture and 10EQS conducted research to identify the business pain points related to data analytics in agribusiness. Our research found that:

• Seed, fertilizer and crop protection companies own more data than they are able to effectively use.

• Timely information is critically important to the new product development process for seed, fertilizer and crop protection companies where innovation, quality and reliability can make or break their competitive position.

• Equipment manufacturers struggle with market forecasting and inventory management

• Producers struggle to manage the variables that have a massive impact on profits, and yet they have limited control or visibility.

• Processors need to exploit market conditions to extract maximum margins.

• Improving supply chain traceability and safety and complying with regulations is a must for processors and manufacturers.

Digital is dramatically redefining how agribusinesses look at data. Data is not static, it should not sit in silos and it has no real endpoint. Rather, data is becoming part of a "circular economy" where it is used in an iterative way, rather than linearly. In an increasingly competitive environment, agribusinesses will pull data from across the value chain over and again and use it to make better business decisions and drive profitability. Think about the entirety of the data supply chain as an end-to-end process that is outcome-driven and fit to strategy.

HARVESTING FIELDS OF DATA

John Deere has begun collaborating with other businesses to deliver new applications and services that help customers to quickly access data and use the insights to inform decisions around productivity, efficiency and yield management. A recent integrators' conference drew close to 100 companies looking to build on the MyJohnDeere platform. MyJohnDeere enables customers to view and manage information from smartphones, tablets and computers at the point and place of need.

Source: Telematics Update; Precision agriculture: From real-time farming data to meta analysis; February 14, 2014; http://analysis.telematicsupdate.com/fleet-and-asset-management/precision-agriculture-real-time-farming-data-meta-analysis

The opportunities

MANAGE MARGINS

Provide data in real time, regardless of location (e.g. in the field, factory or lab)

Get instant access to agronomic insights and best practices

Maximize output while reducing waste

Forecast demand and manage inventory

Prioritize products by market value

INNOVATE

Capitalize on past developments

Leverage input from other functions

Use information from producers to direct R&D

Increase ROI and competitive position

INCREASE SUPPLY CHAIN VISIBILITY

Drive efficiency

Track and trace to increase food safety

Increase manufacturing uptime

MANAGE RISK

Inform commodity trading activity

Understand how weather patterns affect pest and disease pressure, and yields

Manage budgets despite high and fluctuating costs

ENSURE REGULATORY COMPLIANCE

Accelerate filing process

BUILDING YOUR DATA SUPPLY CHAIN

To get started:

Get it together.

Start by creating a data services platform that enables movement and makes data visible and accessible to those who need it when they need it. Once all of the data sources have been opened up, make them accessible through a virtualized data layer that unifies everything into a single view. Your users can interact with this abstracted data platform in a standardized way.

Dig deeper into insights.

Data discovery helps discern the very questions that you should be asking by uncovering insights in a visually interactive and rapidly iterative manner. Users can "communicate" with data at close to the speed of thought—accelerating your time to insight. Analytics can be embedded in data discovery tools— effectively enabling data scientists and less-technical users to do data discovery more easily and intuitively.

Hit the throttle.

Data access on its own isn't enough— velocity is a must. This does not mean all data needs to move at top speeds at all times. Data needs to be prioritized on the data services platform—accelerating time-critical data and allowing stale, less relevant data to chug along to the business more slowly. Data solutions allow for time-critical data to be stored in caching structures that are optimized for quick transport through the value chain. A "data lake" can store vast quantities of your less time-sensitive data.

Stack your supply chains.

Progress becomes possible when your transformation is viewed as a matter of small steps rather than one giant leap. Once your data services platform is in place, start by implementing a single data supply chain for a specific outcome. Once that's done, incorporate another—and another.

Digital–physical blur

Bringing the field to your fingertips
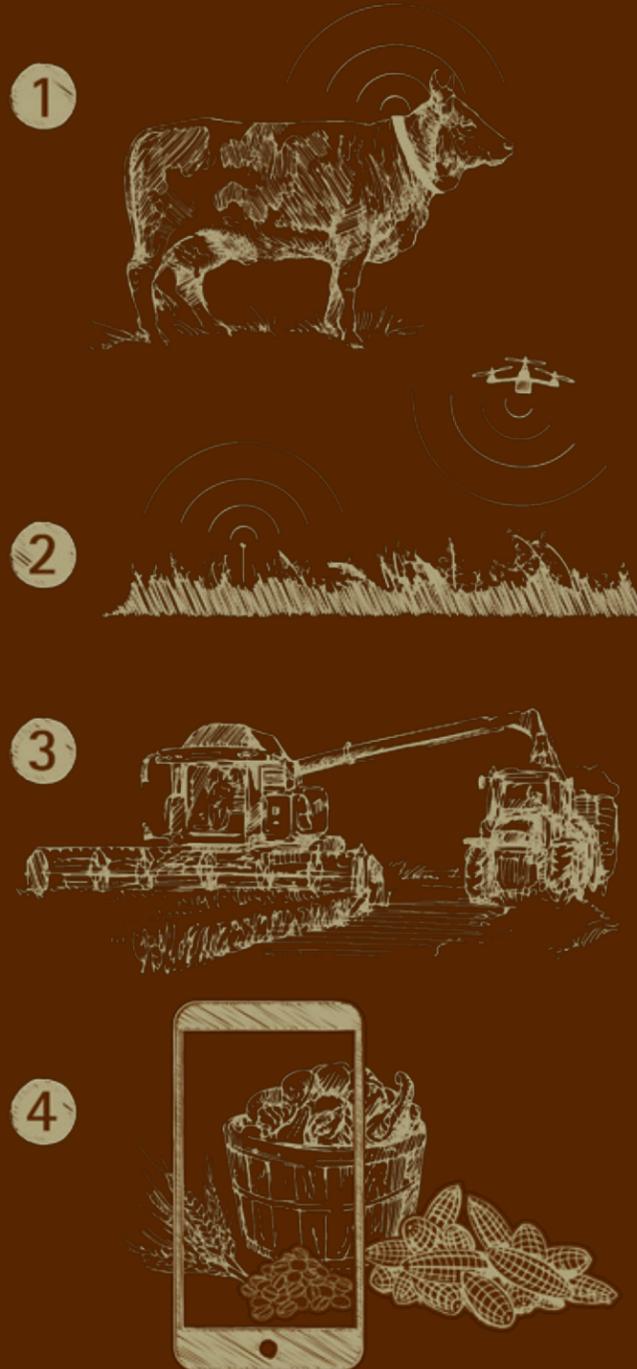
Imagine a world where producers put RFID collars on the cows in their herd. Throughout the day, producers can gauge the herd's movement and behavior. They could monitor the feed station visits of the cows to make more precise decisions about feed mix, the amount of antibiotics and the optimal placement of feed mixes to ensure the right animals in the herd get what they need.

Sensors, drones and satellite imagery in the field could provide the producer insight into moisture level, soil type and input. With this information, he or she could more precisely determine when to plant and water the crop, and what crop protection to use. Producers and processors could know—or be able to more accurately predict—their yield sooner so, based on that information, they could better manage their finances.

This data could also help the seed company understand how their seeds are growing. This information could inform R&D processes and enable test plots so the seed company can ultimately improve their product performance and increase time to market.

Commodity traders could track data from producers to know how many bushels of corn are available for purchase in the next 4-12 months. Using this data, they can make informed decisions about the optimal price to purchase according to their "break-evens."

The physical world is coming online as objects, devices and machines acquire more digital intelligence. What's emerging is more than just an "Internet of Things;" it's a new layer of connected intelligence that augments the actions of individuals, automates processes and incorporates digitally empowered machines into our lives, increasing our insight into and control over the tangible world. Apply this to agribusiness and there is a new layer of connected intelligence that can allow machines, as well as employees, partners and suppliers, to evolve from reaction to prediction. Being predictive also means they can act more quickly and intelligently to keep up with the shifts that every agribusiness faces.

There are so many devices, such as smartphones, notebooks, drones, sensors, RFID and GPS that have the ability to "speak." Unfortunately, these virtual voices are stifled when there is no means to collect the information and make it available to analytics or decision support systems.

A combination of the right data, visualization, mobile devices and other "field" technologies can make information accessible and easy-to-use at the point of need, whether at your desk or in a barn, on a tractor or at a plant. Access to data is equally—if not more important—for smallholder producers who regularly need to interact with government agencies and complex distributor and retail networks, yet they don't have the technology to do so.

JOHN DEERE FARMSIGHT™

Farmsight™ combines John Deere technology and equipment, allowing users to easily gather and access data about their machines and fields. Through wireless communication and remote support, Farmsight™ users can conduct tasks such as monitoring machine health or setting up implements more quickly by accessing pre-populated settings.

Source: http://www.deere.com/wps/dcom/en_US/campaigns/ag_turf/farmsight/farmsight.page

The opportunities

Producers see up-to-the-minute information on their irrigation systems and grain bins, or get an alert that a piece of equipment is about to fail.

Commodity traders gain much-needed leverage for contract negotiations by understanding short- and long-term commodity pricing based on what's happening in the field.

Producers tap into precision farming information to reduce costs.

Processors use sensors to alert them to preventive maintenance opportunities to increase manufacturing uptime.

Logistics leaders track and optimize warehousing and transportation.

FINDING CLARITY AMID THE BLUR

Seize opportunities at the crossroads of digital and physical worlds.

Go mobile.

Extend your infrastructure to support enterprise mobility for core business functions. There are enormous opportunities to move employees' decisions closer to where they can take action. That much is apparent when so many employees keep their mobile phones close to them at all times.

Firm up the foundation.

Develop a real-time data analytics infrastructure to support the data velocity and insight needs of digital/physical projects. Then, develop a governance strategy to act on real-time feedback loops to enhance decisions at the edge.

Automate where it makes sense.

Re-imagine the end-to-end delivery and experience of existing processes and services. Make the current ways of doing things much more efficient. You will need to ask questions about how truly intelligent automation will change interactions with and expectations of your customers, producers and other stakeholders.

Never slack on security.

Proactively address potential data privacy issues as new pilots and projects are developed. Urge leaders to go beyond compliance, giving end users transparency and control in an effort to mitigate risk and liability.

One database to feed and fuel insights across the entire industry

If an agnostic, secure agribusiness industry database were developed and maintained by an objective data manager, it would deliver rewards across the value chain. Producers, inputs companies, processors and equipment manufacturers could use collective data and insights to make better business decisions because you have a holistic view across all players in the process. Then imagine how you can increase speed and accuracy when you flow this industry data through your company's data supply chain.

To be effective, all agribusinesses would need a seat at the decision-making table, and would need to agree to contribute data. An unbiased third party could serve as steward of the database, so that all players could access objective insights with confidence.

Such a database connects to technology trends that will affect agribusiness in the next three to five years:

- As digital/physical worlds blur, an increasing number of mobile devices and machines enables more opportunities to collect data at the point of need—data that can feed the industry database.

- When expanding your temporary workforce through crowdsourcing, this database could serve as an "Angie's List" of agronomists and other experts, allowing users to find people with specific knowledge or expertise.

- Such a database will need the backing of a strong technology underpinning. Harnessing hyperscale will be critical to achieving the necessary processing power.

- The database could offer a cloud storage component that provides yet another way to architect for resilience and ensure the information is always accessible. But this database will require tight security to protect the information.
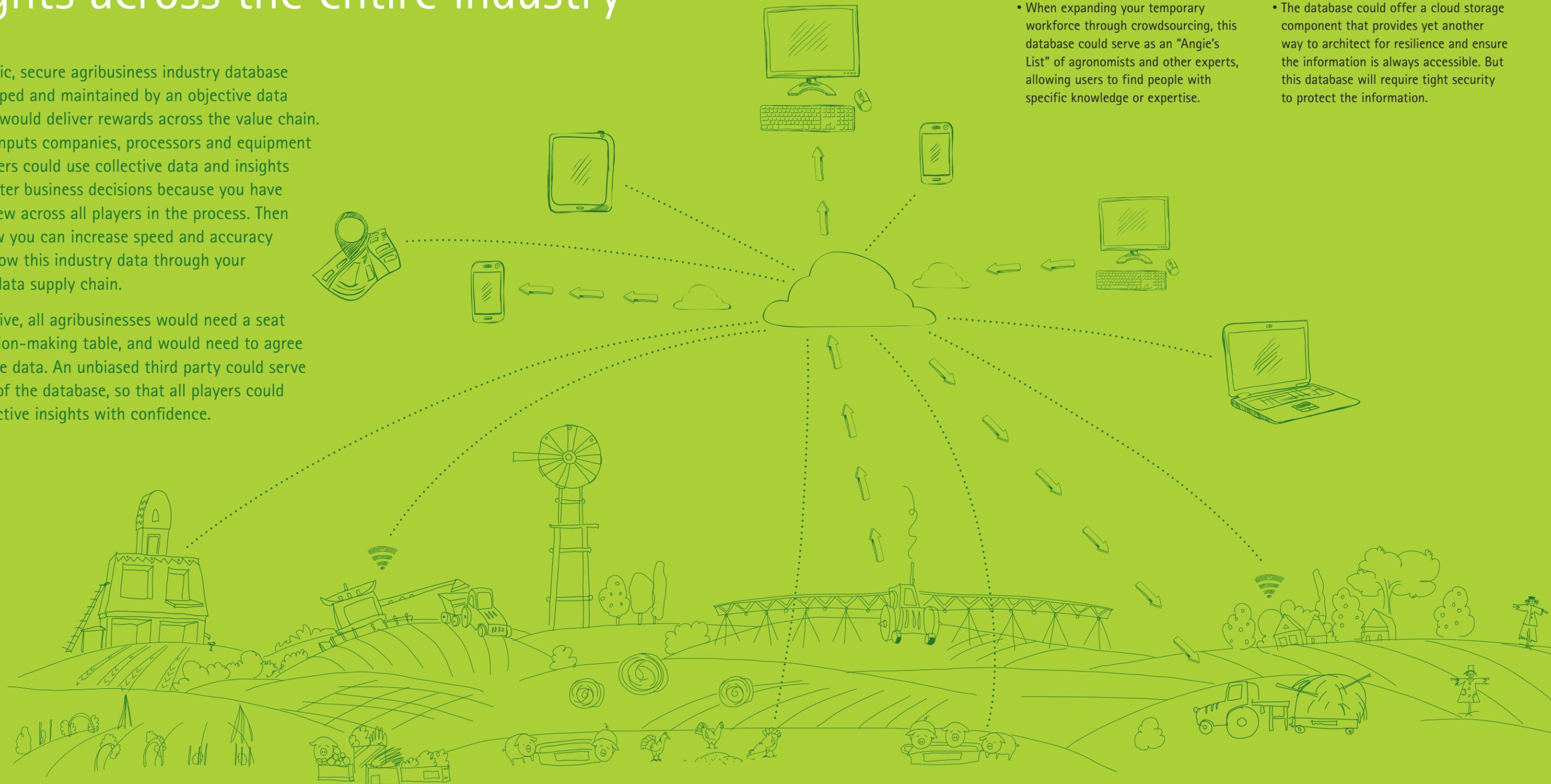
From workforce to crowdsource

Agribusiness without borders
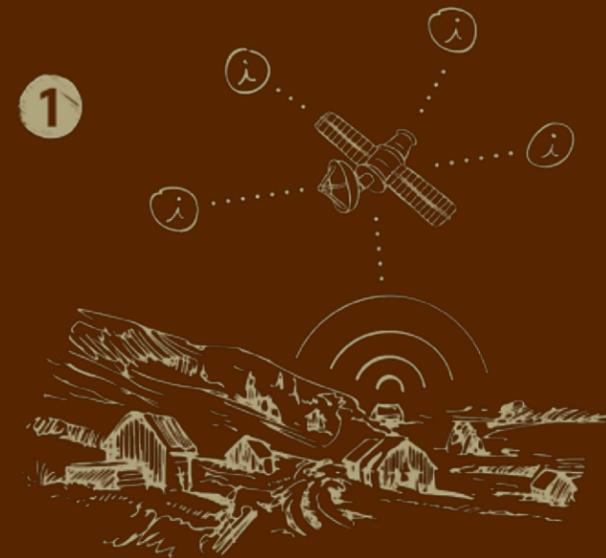
Imagine the smallholder producer in an emerging market. He may not have local access to agriculture experts in his village, but he can access a global "crowd" of agronomists for solutions and best practices through an online portal.

Maybe the village in that emerging market has an experienced agronomist. This local entrepreneur could offer his specialized skills to a seed and crop protection distributor or retail network that is looking to penetrate that market and navigate the complexities of that local region.

A multinational agribusiness is looking to deploy some technology in an emerging market to better serve local customers. Since the company has few employees in the market, it leverages a temporary workforce with the required skills through the "crowd" to implement the solution, and pays by the hour.

Agribusinesses come in all sizes, but to grow, you don't always have the skills in-house to complete the task. If you could extend your workforce beyond your employees—essentially to anyone with an Internet connection—you could cost-effectively build a temporary workforce that supplies unique skills at the point of need to provide a competitive advantage and help you manage margins. For example, if you need analytics talent—a highly demanded skill set—you can reach out to the crowd to find qualified mathematicians and data scientists. The crowd allows you to scale when you need to, sourcing talent on the fly, paying for skills by the day, hour, minute, or even by the solution.

Even for those agribusinesses that have specialized skills in house, crowdsourcing opens the doors to a broader base of perspectives that may contribute to

solving a problem more quickly or adeptly. For instance, producers could tap into a crowd of agronomists that bring best practices about what to do in certain weather conditions and geographies, what crop protection to use based on a particular pest outbreak, or what fertilizer to use in certain soil conditions to increase yields. Cloud, social and collaboration technologies connect you to vast pools of resources across the world, many of whom are motivated to help. This agile workforce is not only better suited to solving certain problems, in some cases, they will help for free.

The Center for Agricultural Bio-Science International (CABI) launched Plantwise, an initiative offering producers crop and pest diagnostic tools and other resources. Plantwise has crowdsourced the role of its agricultural technicians; a role previously completed by a few individuals

is now done by thousands of farmers in 24 countries, including the Congo, Ghana, Kenya, Rwanda, Sierra Leone and Uganda. In addition to reducing crop loss and improving food security, Plantwise has compiled resources into a publicly available Knowledge Bank. It is based on aggregated farmer data with more than 2,500 plant pests, pest identification tools and pest distribution maps for use at a local level.

A COMMUNITY CROWD

In Zambia, the RANET project uses crowdsourcing to collect local rainfall and weather information. Weather data is collected by remote sensors and distributed to more than 3,000 community members in rural areas. Locals are trained to read and remit data to a central database via mobile phones. This weather information is later disseminated back into the community, broadcast by community radio stations.

RANET incentivizes participation by providing free mobile phones and subsidizing airtime.

Source: allAfrica; "Zambia: Climate Information Alerts Boost Poor Farmers"; July 14, 2011; http://allafrica.com/stories/201107141317.html

The opportunities

Opening communication channels across agribusiness will help companies better understand where to expect increased production in certain areas, and producers can make more informed decisions about what they need to grow, and how they need to grow it.

To do so, the agribusiness industry could establish communities of practice where users can share insight or video and pictures through a subscription-based service. Or the industry could build an "Angie's List" of agronomists where people can find the specific expertise they need to resolve an issue. Those agribusinesses that participate in these collaborative online communities will need to take steps to protect intellectual property.

RALLYING THE CROWD

There are a variety of ways to begin leveraging the power of the crowd.

Carve out the crowd work.

There must be clear, shared objectives for work you intend to crowdsource. And complex tasks must be clearly and logically broken down into a series of independent subtasks that can be parceled out to the crowd.

Do your due diligence.

The inherent transience and anonymity of the expanded workforce places sharp limits on traditional human resources activities, such as job training. And it raises many thorny questions about the security of intellectual property. So you will need to carefully consider these elements when starting.

Welcome them in, but walk them through.

With crowdsourcing, adoption is paramount, so it is crucial to properly engage the expanded workforce. If you lack a properly motivated and incented community, nothing will get done. Easing the transition will also require a technology solution to guide users through the business processes.

Business of applications

Whetting the appetite for digital in agribusiness

What if an app could collect information about soil moisture content, and then recommend an irrigation method to help a producer achieve optimal yield?

Apps installed in equipment, such as tractors, would take away the guesswork about maintenance and help users avoid equipment failures. Furthermore, the equipment companies themselves could use the data gathered on each piece of equipment for R&D purposes to build competitive advantage.
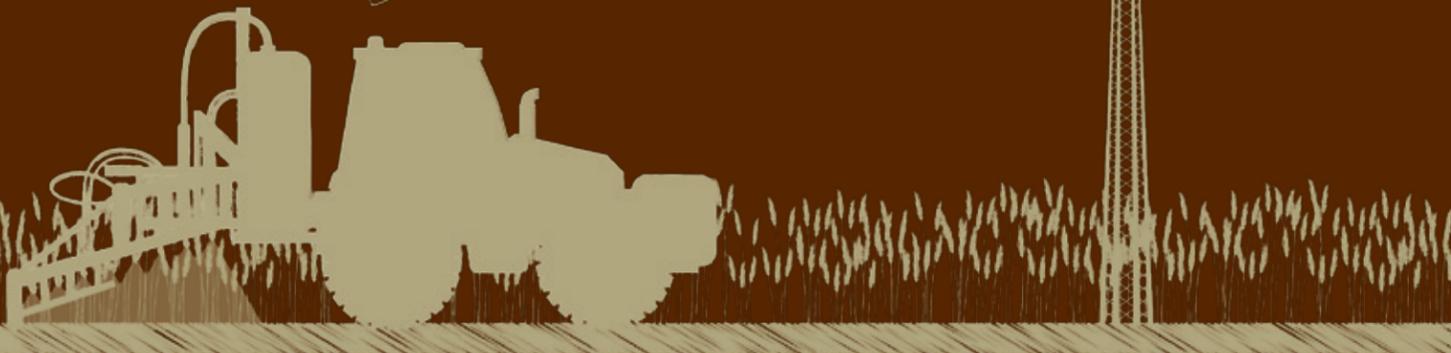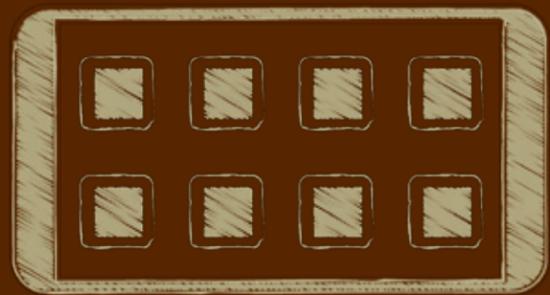
No agribusiness can ignore the food production requirements of the coming years. Technology can help businesses across the value chain to improve yield. This calls for enabling the field force with apps that allow them to make better decisions at the point of need.

The opportunities for use are tremendous:

- Apps can allow integration between commodity trading and risk management, for example, producers could do their own hedging e-trading.

- Apps could track equipment logs to indicate when machinery is due for service or is in need of repair.

- Mobile apps could assist emerging market agribusinesses in areas such as local marketing, technical support and sales—areas where they just don't have enough hands to do the work.

Agribusinesses are more mobile than ever. Nearly 70 percent of agribusiness retailers are now using tablets for work, and another 10 percent said they (or their company) plan to purchase one within the next six months. Apps—whether used by producers, employees or customers—will need to be continually updated and quickly deployed to meet the ever-changing demands of agribusinesses. Each agribusiness will need the infrastructure to connect the data supply chain and make it easy to provide regular updates and patches.

As large agribusinesses push for greater IT agility, there will be a sharp shift toward simpler, more modular and more custom apps. However, there are significant implications. You must decide not just who plays what application development role in your new digital organization, but also how to transform the nature of application development itself. The more quickly your agribusiness can create and launch new applications in today's turbulent markets, the better you can innovate, collaborate and build your competitive edge.

TOP 10 MOST INDISPENSABLE APPS USED BY AG RETAILERS

1. Weather	2. E-mail
3. Dropbox	4. Weed ID
5. Agrian Mobile	6. Documents To Go
7. QuickBooks	8. iBooks
9. Connected Farm	10. Evernote

*Source: CropLife; "Top 10 Most Indispensable Apps Used By Ag Retailers";
April 29, 2013; http://www.croplife.com/editorial/matt-hopkins/top-10-
most-indispensable-apps-used-by-ag-retailers/*

WHAT DO AG RETAILERS WANT FROM THEIR TECHNOLOGY?
(North America)

Eighty-nine percent of survey respondents said "ease of use" was the feature/functionality they value most in a tablet. For an industry largely made up of men in their 50s, technology that offers a simple, intuitive user experience is a must.

Source: CropLife Media Group's 2013 Ag Retailer Tablet Use Survey

The opportunities

Agribusinesses that offer apps will enable convenience and ultimately improve their business relationships, but there must be cooperation between producers, processors, equipment companies and seed/fertilizer/crop protection providers.

The future may include an industry-wide agribusiness app store where a third party delivers agnostic, secure apps for all agribusinesses. A roaming app development team could go right to the source, talking with producers, commodity traders and processors about what apps and what features would help them to do their jobs better.

BUILD YOUR SOFTWARE COMPETENCY

Begin to beef up your business of applications.

Get fit and flexible.

Separate applications from the back-end systems that support them. Imagine taking the look, flow and experience of a financial reporting system and disconnecting it from the complex financial models and SEC regulation behind it. The resulting system will allow developers to rapidly update how users interact with it; it will be easier, for instance, to get up-to-date cost projections without having to touch the underlying financial models.

Think outside the platform.

Do not strive for the holy grail of software platforms; there is no such thing. It's not possible to use a single platform to handle every business requirement. And don't assume that cloud will always be the answer either. Agribusinesses will need to adopt a hybrid mindset, with different platforms, local and in the cloud, for different sets of business needs.

Connect when and where it counts.

Resurrect middleware as the "software platform"—a way to present data services that can make it easier to find modular apps that will perform a particular business function. Enable modular apps to combine, like puzzle pieces, into "systems" to implement more complex business activities. Such systems are more flexible and provide a framework to create a custom, on-demand solution faster.
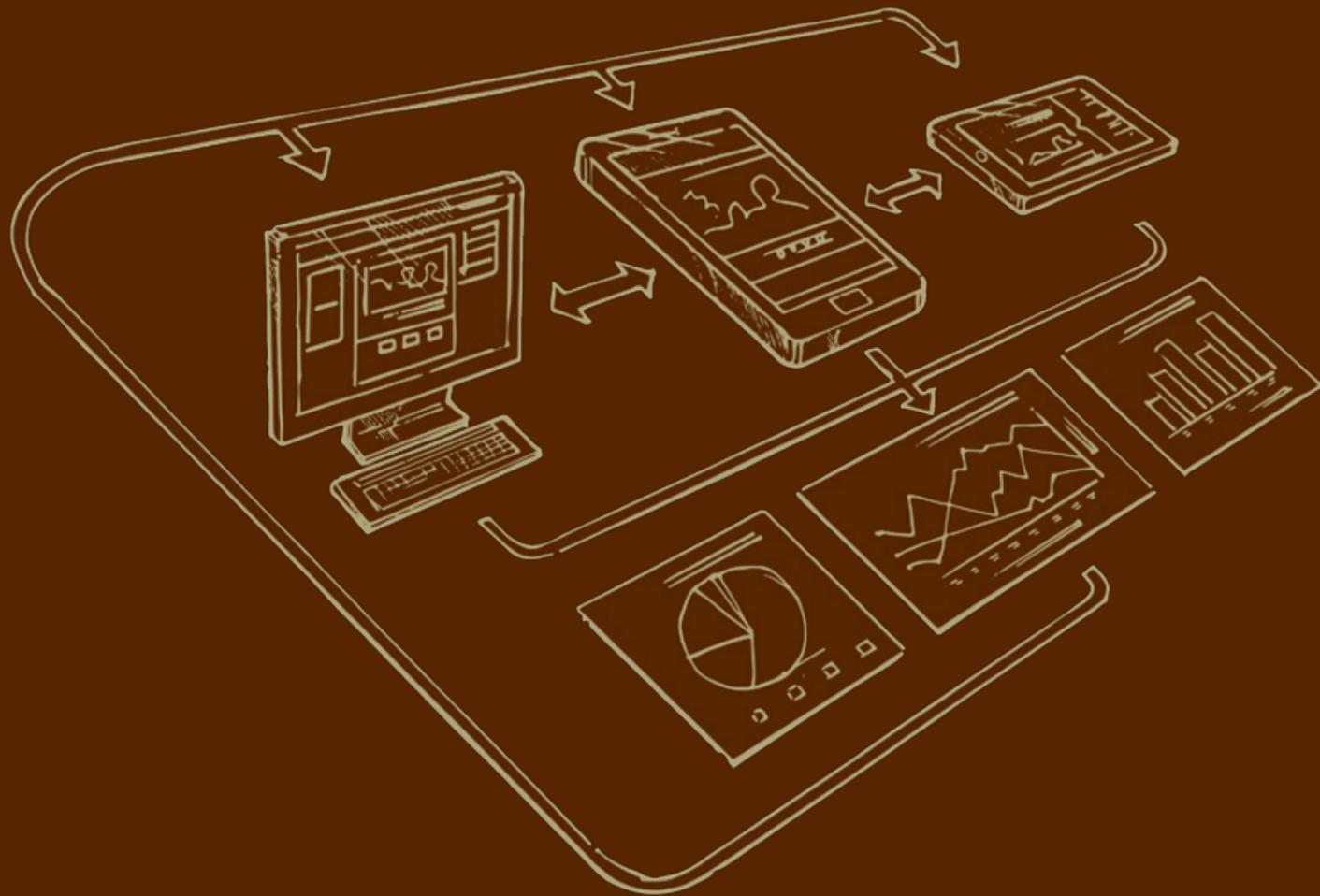
Team for success.

Form multidisciplinary teams of IT and business leaders. User experience skill will become a necessity to drive the adoption of every new application. And as the data collected from these applications is dispersed across the organization, scarce resources, such as data scientists, will need to be built up through hiring and training. But it's not just the technology skills that will be in demand, business process skills will be needed as well.
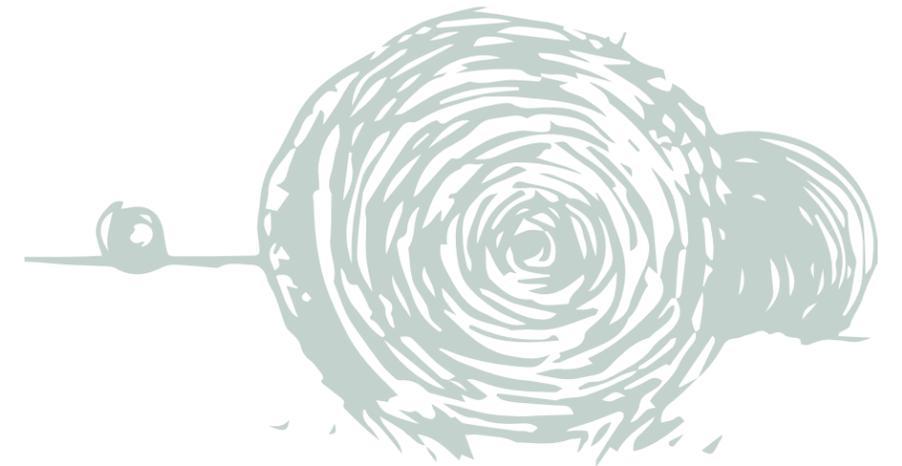
Harnessing hyperscale

Going bigger with data

As agribusinesses digitize and the amount of data at the field and factory levels grows exponentially, so will the demand for bigger, faster, more efficient data centers. These data demands are changing so fast that few agribusinesses have the infrastructure in place to keep up—thus hitting a plateau of "data exhaust."

Hyperscale data centers can reduce costs and fuel a next wave of growth for agribusinesses. Highly scalable hybrid or cloud-based data centers can remove the bottlenecks to the flow of data and enable persistent, pervasive networking that connects all devices and all people across an agribusiness' value chain. In such an environment, platform-independent micro apps could be deployed in hours and days instead of months.

Remember the consolidated, objective industry database we mentioned earlier? Imagine the ability to aggregate local, regional and global data from that database and provide it to producers or local agronomists to guide their planting decisions. That same database could give processors regional data so they can better manage the capacity and schedule of their regional warehousing operation.

PRODUCING BY PRESCRIPTION

Monsanto's FieldScripts service semi-automatically generates planting "prescriptions" that are transmitted wirelessly to a tractor running a planter. The farmer provides a seed dealer with yield data, usually via a thumb drive, as well as soil reports. The seed dealer adds insight to the discussion, and then transmits this information to Monsanto, where the company applies algorithms that include Monsanto's understanding of how its seeds perform.

Finally, Monsanto generates a customized FieldScript to the farmer's tractor. A cloud-based service with an iPad app creates integrated and shareable maps of planting and harvests.

Initial field tests with 150 farmers found that they averaged five bushels per acre more using the service.

Source: Telematics Update; Precision agriculture: From real-time farming data to meta analysis; February 14, 2014; http://analysis.telematicsupdate.com/fleet-and-asset-management/precision-agriculture-real-time-farming-data-meta-analysis

The opportunities

Hyperscale can level the playing field for agribusinesses in emerging markets. Imagine all agribusinesses have the same level of access to computing capacity and storage. And users, such as producers in remote locations with limited connectivity, can connect to this infrastructure.

Producers could access data from across the value chain to inform production and increase yields, and they could also more easily transact with the complex distributor and retail networks. Cloud-based solutions may not work in areas such as China or India, where government regulations prohibit satellite data from being taken out of country. Agribusinesses in these areas would need their own hyperscale data centers.

WAYS TO POWER UP

Benefit from the renaissance in hardware innovation.

Embrace emerging technology.

Innovations in technologies such as low-power CPUs, solid-state data storage and in-memory computing will benefit the performance of your enterprises' servers and data centers, enabling the next generation of infrastructure to support your digital transformation.

Plot your path.

Determine whether you have the infrastructure and skills needed to support a digital enterprise. There is no set path on how to grow to meet the hyperscale challenges. Figure out the best way your business can drive down the operational cost of running your data centers.
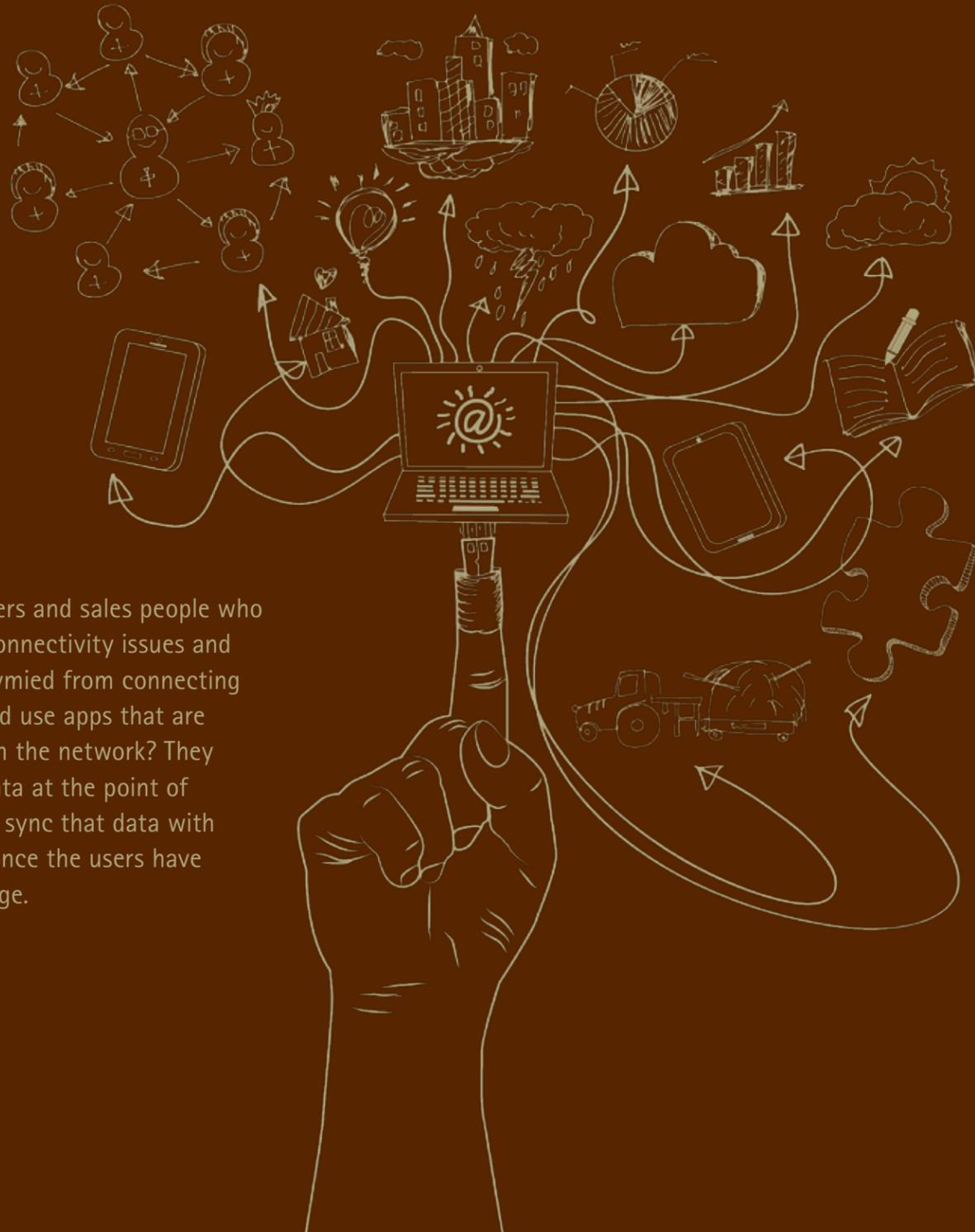
Explore the right combination.

Every agribusiness is going to face a set of heterogeneous requirements that will be best served using the correct recipe of commodity versus specialized hardware and private versus public cloud architecture.

Architecting resilience

Becoming a truly nonstop business

What if producers and sales people who struggle with connectivity issues and are typically stymied from connecting to systems could use apps that are untethered from the network? They could collect data at the point of need—and then sync that data with other systems once the users have network coverage.

Agribusiness is a global, nonstop, around-the-clock industry, so companies must avoid business disruption at all costs. But as agribusinesses go digital, you are far more susceptible to disruption because IT systems are constantly evolving to do things they weren't initially designed to do. The need for "always on" IT infrastructure, security and resilient practices can mean the difference between business as usual and the erosion of your business reputation. Agribusiness leaders must ensure that your systems are dynamic, accessible and continuous—not just designed to spec, but designed for resilience under failure and attack.

Resilience is especially important in an era where natural disasters are seemingly more frequent and more severe than ever before. Stormy weather affects brands, too, as news about cross-contamination and food safety issues can spread like wildfire. The ability to track and trace products throughout the value chain has become increasingly important as

agribusinesses must do the double duty of meeting market demand while complying with regulatory requirements and managing risk.

Track and trace measures are becoming a mandate. For example, the U.S. Department of Agriculture (USDA) Disease Traceability Program stipulates that source-age verification become mandatory not only in beef, but also across all hoofed animals for interstate commerce purposes. Only 6,000 beef producers out of a total 800,000 are source-age verified. The USDA estimates that compliance will cost the meat industry between $53.1 million and $192.1 million. Included in those costs will be the elimination of commingling - the farming of livestock from different countries.

Resilience can also affect commodity traders in terms of risk management—only the best up-to-the-minute information about weather patterns, crop damage and yields will enable you to make informed decisions about trades.

GETTING TO THE SOURCE

Where Food Comes From audits and verifies a majority of the beef, pork and poultry sold into Whole Foods. With an 18-year track record, the company is the No.1 provider of third-party certification services and audits to the food and agricultural industries.

Source: http://www.wherefoodcomesfrom.com

The opportunities

Building systems to survive failure and recover quickly has its perks. Being "always on" is a necessity in the global 24x7x365 agribusiness industry. It can enable your business to meet market demand while doing damage control in a variety of ways. The ability to track and trace in the manufacturing process and the field will become increasingly important as cross-contamination concerns and food safety issues continue to attract attention.

Resiliency will call for increased data security. One way to achieve this is to throw darts at your systems to see how they hold up. For example, Netflix has a program called Chaos Monkey—an attack force whose entire mission is to try and make Netflix's systems fail. The company learns from each attack to build up resilience. This is the kind of mindset very few agribusinesses have, yet it is a critical factor for success in the digital world.

ENGINEER TO BE A NONSTOP BUSINESS
Reduce the operational risks of your digital business.

Invest in the best.

Look for security investments that provide "bang for the buck," leveraging existing investments and going beyond compliance. Advanced detection and external threat intelligence capabilities can help you to better orient your investments toward the areas of greatest vulnerability.

Track and trace your failures.

Implement performance monitoring and failure tracing tools to help you quickly identify and remediate issues.

Ready for anything.

Architect your system for a diversity of economic conditions, business risk factors and a multitude of entry points—including your own security fabric. Then, ensure trust among all components of a system through attestation.

Unleash the power of technology

Becoming a digital agribusiness isn't just about how we incorporate technology into the business; it's about how we use technology to reinvent ourselves to thrive in this digital world.

For large agribusinesses especially, this opportunity to shift from disrupted to disruptor cannot be overstated. It's an exciting future of opportunities that include creating and delivering context-specific information in near real time, accessing the expertise of the crowd to deliver unique and differentiating capabilities and scale your business, and developing modular apps that make life easier for your producers, customers and employees to work harmoniously across the value chain.

To read the full Accenture Technology Vision 2014 for additional insights, visit: accenture.com/technologyvision

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