

Value Creation in the Digital Agribusiness Network

Executive Overview March 2020

PUBLIC



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Agenda



Global trends

SAP strategy – announcing the Intelligent Enterprise

SAP's approach to the Agribusiness

SAP Agribusiness solutions

Customer Success

S/4HANA for Agribusinesses – a step towards the Intelligent Enterprise

Solution Innovations

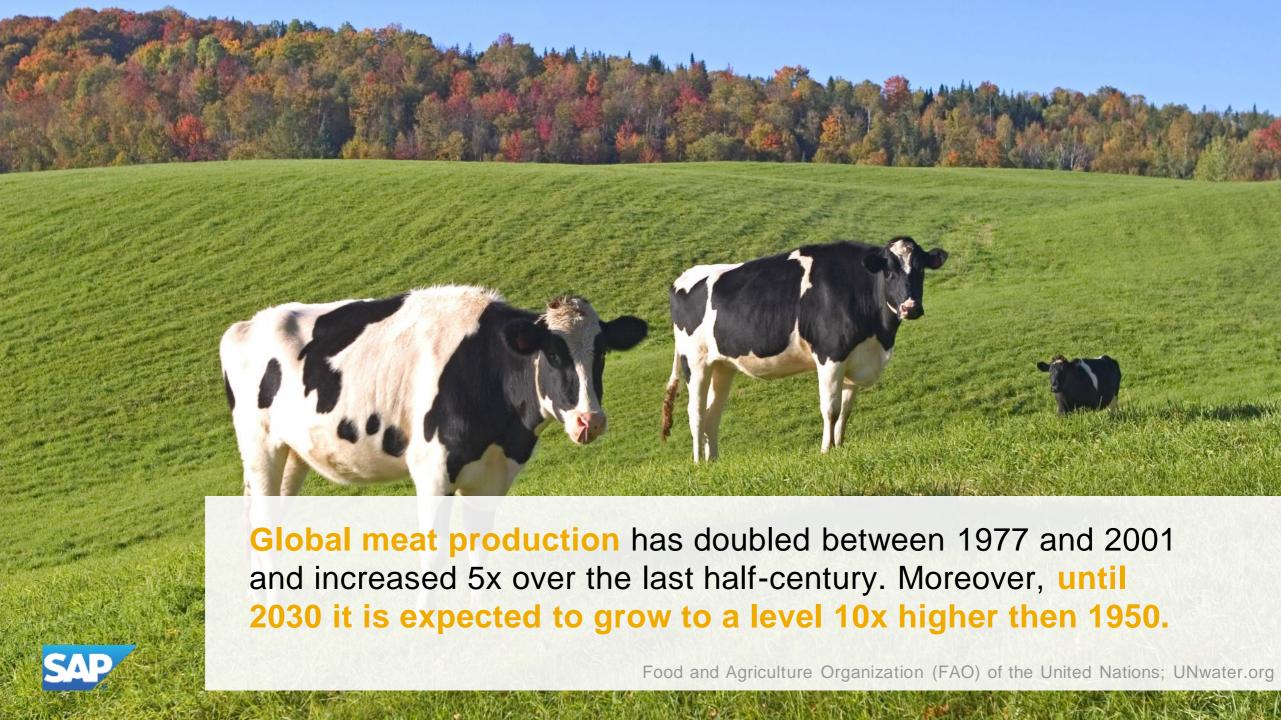
Summary

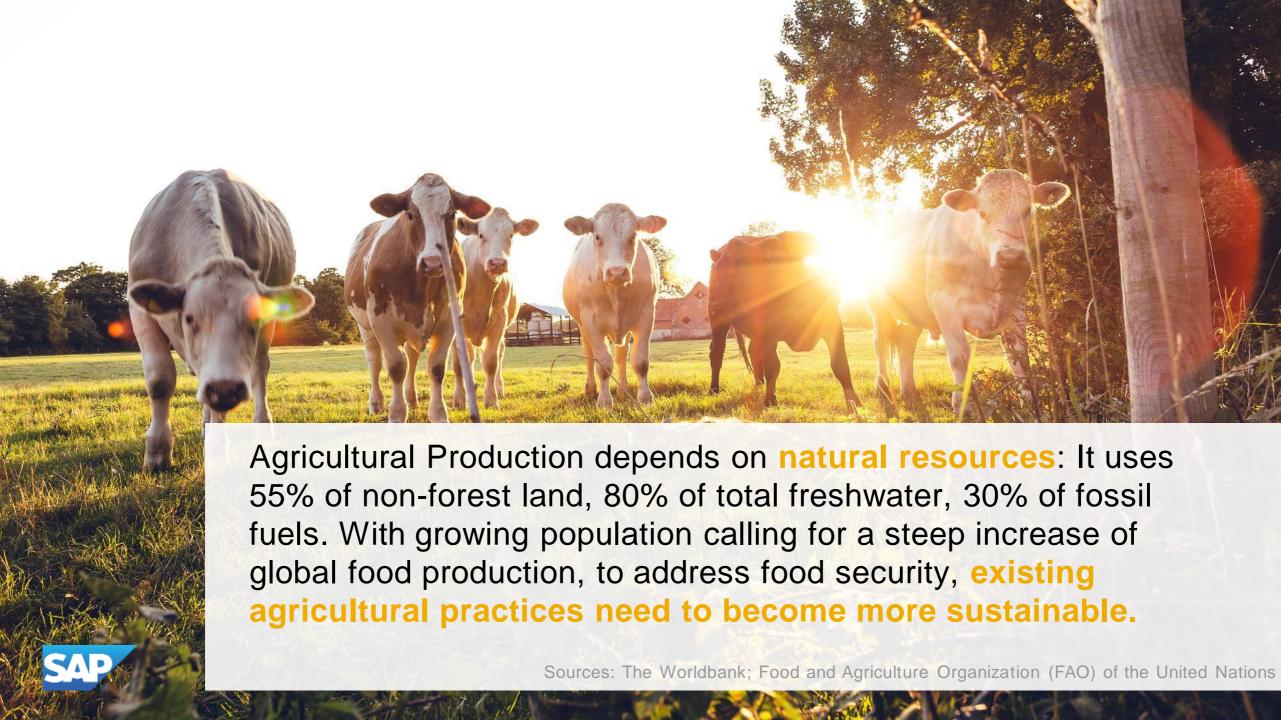
Global trends





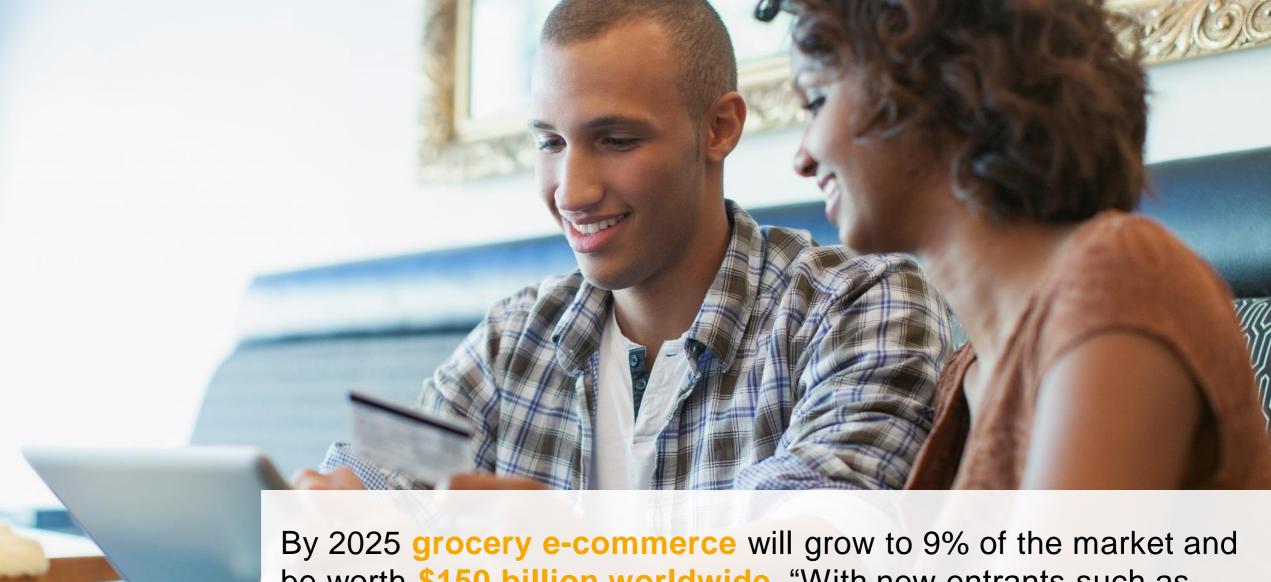












By 2025 grocery e-commerce will grow to 9% of the market and be worth \$150 billion worldwide. "With new entrants such as Amazon expanding rapidly, the industry is facing a shake-up."

Source: digitalcommerce360, Kantar Worldpanel



To meet these challenges, farmers, agribusinesses and food companies are turning to Digitization to enable the next agribusiness and food supply chain revolution.

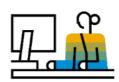
SAP strategy – announcing the Intelligent Enterprise



The Digital Era is evolving into The Intelligence Era



Mainframe & PCs 1960s - 1980s



Client Server & Internet 1990s - 2000s



Cloud, Mobile & Big Data 2000s - 2010s



Intelligent Technologies 2010s - 2020s



- Transistors & silicon revolution
- Large scale Mainframe Computing adoption
- · Emergence of PC's
- Plant floor automation

- Widespread PC adoption
- Broadband Internet
- ERP and business process technologies

- Mobile & Smartphone ubiquity
- Cloud Computing
- Social Networks
- Big Data

- Machine learning (ML) and artificial intelligence (AI)
- Internet of things (IoT) and distributed computing
- Blockchain

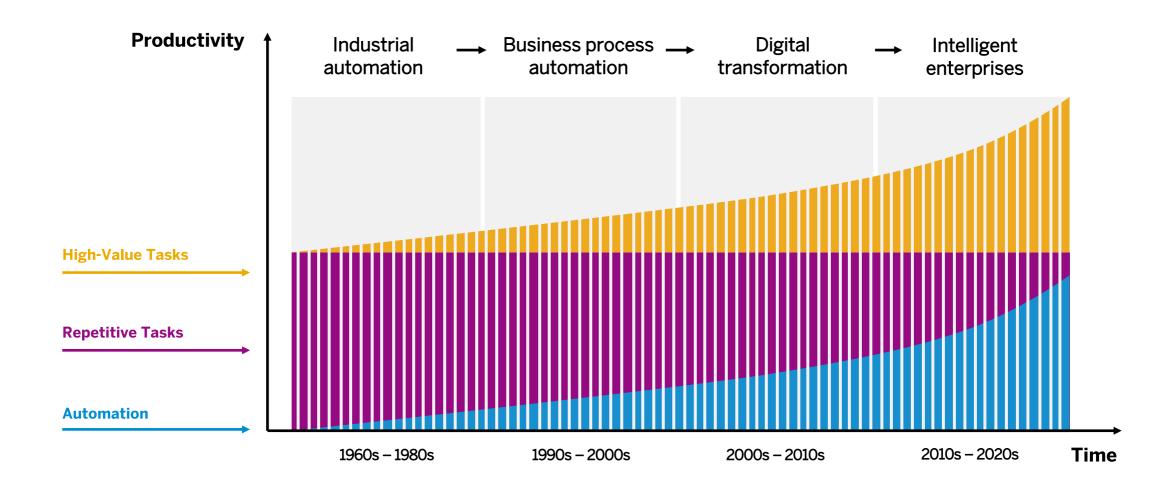
CUSTOMER VALUE CREATION

Industrial Automation Business Process Automation

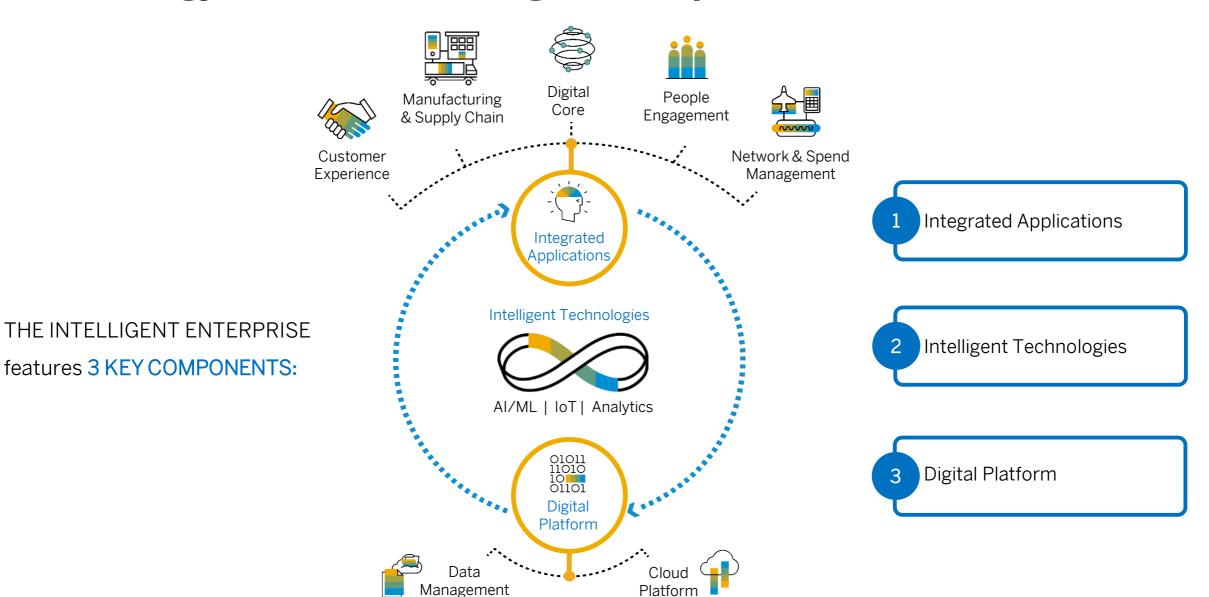
Digital Transformation

Intelligent Enterprise

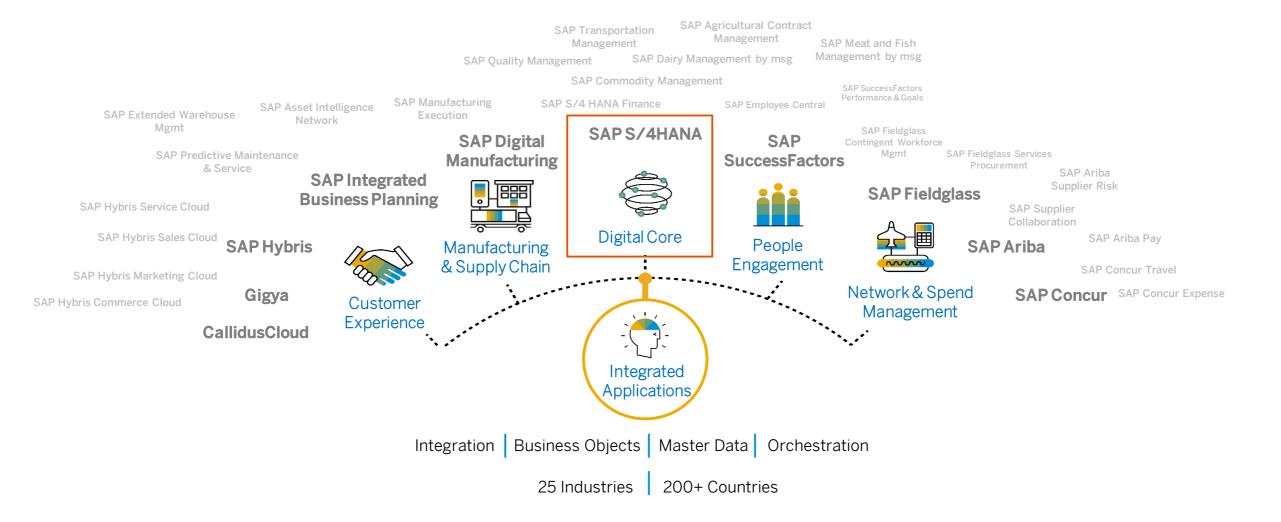
Intelligent enterprises elevate employees to focus on higher-value tasks



SAP Strategy – Deliver the Intelligent Enterprise



Intelligent Suite: Deliver intelligence across value chains



Intelligent Technologies: SAP Leonardo everywhere

SAP Core Applications Leonardo embedded

SAPLeonardo AI/ML | IoT | Analytics | Digital Boardroom

Industry Accelerators Industry-led Design Thinking Methodology

Solution Rapid Ideation & Vision

Prototyping

Integration Blueprint

Business Case Development

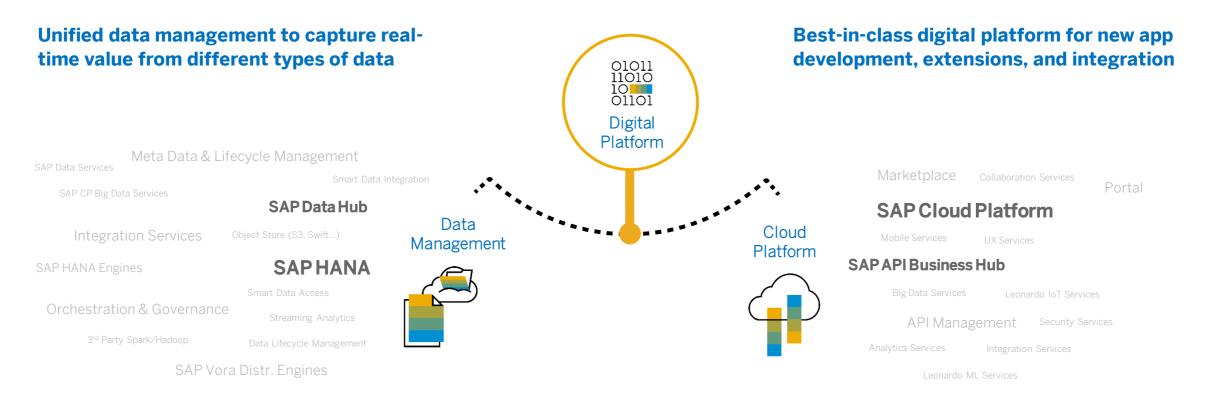
Applications that deliver intelligence within core business process (such as intelligent ERP, intelligent HR)

A toolbox of intelligent technologies (IoT,

AI/ML, and analytics), microservices, and data management tools that will be available over SAP Cloud Platform to deliver intelligence out of the box as well as through co-innovation

Universal analytics and SAP Digital Boardroom solution connecting the enterprise for the CXO Innovation services combining design-thinking and industry accelerators to help ensure customers derive value from innovative new technologies quickly and with reduced risk

Digital Platform unlocks data-driven intelligence and innovation



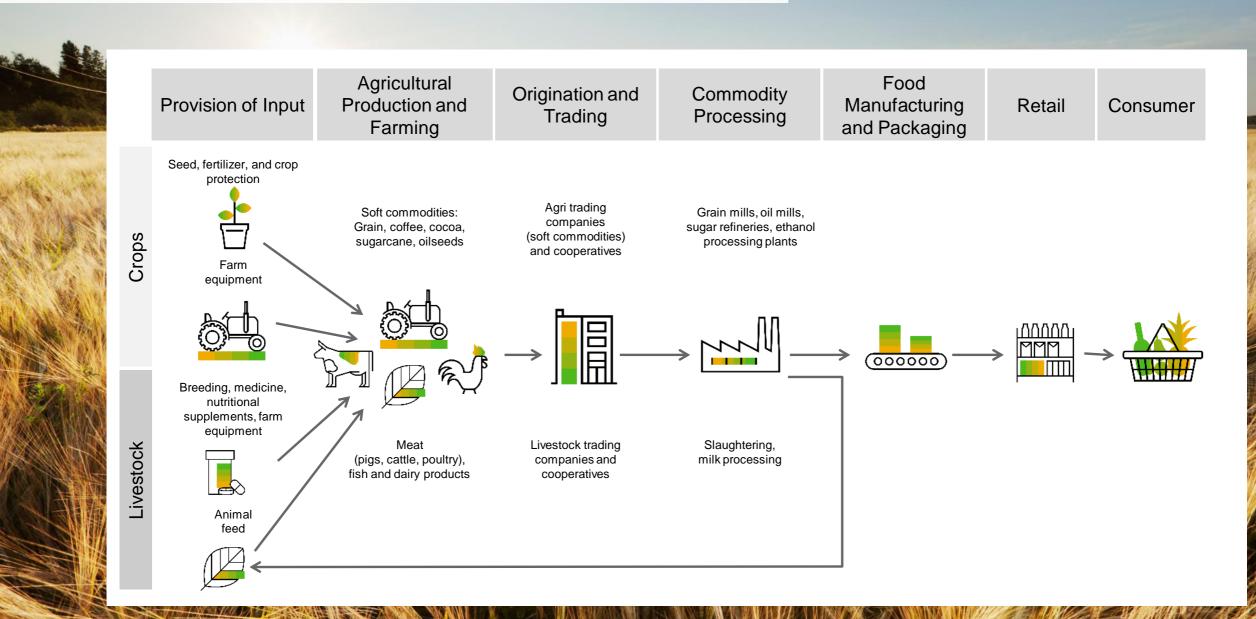
Next generation data management expands SAP HANA in-memory database to address structured and unstructured data use cases and external data SAP HANA powers SAP Applications as the foundation of **high performance data warehousing** and analytics Data Hub provides
data orchestration
and meta data
management across
heterogeneous data
sources

Platform for extending the business processes of the integrated applications and enable new innovations Delivering deep data and process integrations through **APIs and microservices** Marketplace for ecosystem to build new innovations leveraging APIs and Business Services

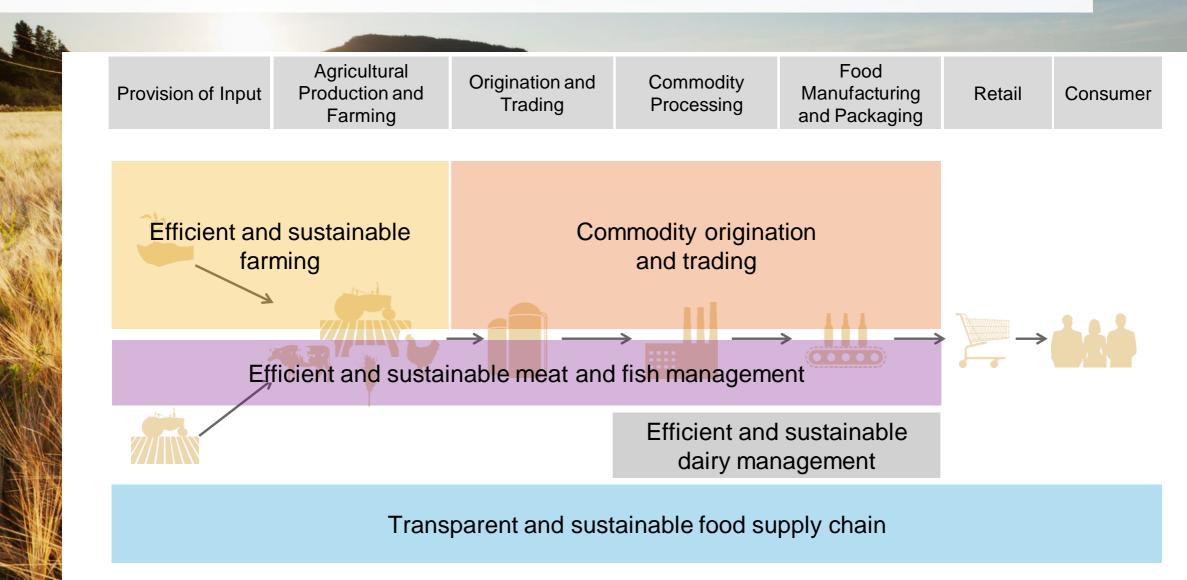
SAP's approach to the Agribusiness



Farm to Consumer Agribusiness Value Chain



SAP industry specific Solutions and Innovations for Agribusinesses span across the agribusiness value chain. They are supporting five key themes.



SAP Advisory Council for Agribusiness

Driving thought leadership and co-innovation with industry leaders

Member Companies













































- Invitation-only, select group of strategic SAP Agribusiness customers
- Fostering open sharing and collaboration
- 2 in-person meetings per year

SAP Agribusiness solutions



SAP Farm Management by Vistex

An application for grower companies to plan and manage farm operations for multiple crop types. It is fully integrated into SAP logistics and financials processes.

Field planning:

Planning of farm field operations based on budget, resources and production goals.

Crop lifecycle management:

Provide sequence of activities across the crop lifecycle for different crop types. This includes tasks for chemical application, irrigation and other field activities.

Harvest management:

Plan and execute harvest activities, with precise measurements of crop yields and qualities.

Mobile access:

Provide mobile access to field operator for key functions like quality measurements and task recording.

Management analytics and reporting:

Provide business insight and decision support to farm managers.



SAP Agricultural Contract Management

An application for origination and trading companies to efficiently create and manage contracts and track their frequent contract changes and their impacts to the companies overall risk position, mark-to-market and profit-and-loss. Comingled stocks business processes are supported as well.

Contract management

Capturing and managing contracts through the entire lifecycle, with flexible market-based pricing, contract terms and conditions, quality and quantity schedules, optionalities and expense management.

Contract application of loads and complex settlement are supported as well as expense management and recovery.

Native integration into risk management

Through writing and updating exposures at every relevant event during the lifecycle of a contract real-time position reporting, mark-to-market reporting and profit-and-loss reporting is accomplished.

Comingled stocks handling

The solution also allows to manage 3rd party stock (e.g. from farmers or other industry partners) at the companies location as well as managing own stock at 3rd party locations. This includes storage agreements and storage fees, inventory management, storage settlements including accrual of storage fees and reversals.



SAP Grower Management for Perishables by Vistex

An application helping agribusinesses to manage their grower relationships - fully integrated into SAP logistics and financials processes.

Contract management:

Manage grower contracts with details on terms, conditions, contracted yields and qualities.

Outgrower support:

Manage outgrower relationships such as services, farm input materials, and payments and cash advances to farmers.

Settlements and financial processes:

Manage settlement of grower contracts including loans, advances, and deductions, allowing for documented statements to farmers.

Mobile access:

Provide mobile access to operator for key functions such as crop receipts and quality measurements.

Management analytics and reporting:

Provide management and operations reporting, which are prerequisites for documenting good agricultural practices and compliance.



SAP Rural Sourcing Management

A mobile solution on SAP Cloud Platform, connecting smallholder farmers in developing countries with the supply chain of global agribusiness and consumer products companies. Supporting United Nations Sustainable Development Goals #1 (fight against poverty) and #2 (end hunger).

Smartphone app for field agents

Field agents collect data on farmer registration, purchasing and processing of produce, and transportation records helping to keep the value chain transparent and sustainable.

Desktop web access for management and operations

Desktop users such as analysts in central processing locations take advantage of more efficient operations, direct exchange of information with market participants, and the ability to respond quickly to quality and distribution issues.

Deep analytics increase the value of the mobile input enabling transactional analysis, forecasting and planning.



SAP Integrated Business Planning and SAP Transportation Management

Our solutions for real-time supply chain management - reducing shipping costs and improving on-time deliveries.

Integrated business planning

Balance supply and demand profitably, considering strategic, financial, sales, and operational goals.

Supply-chain planning

Increase the overall transparency of the supply chain, shape demand and plan and optimize commodity sourcing, production, and distribution decisions.

Logistics and order fulfilment

Manage sales orders and all inbound and outbound domestic and international freight to lower operational and administrative costs and overall transportation spend.

Bulk supply-chain operations

Streamline bulk shipment planning, automate execution, and calculate laytime and demurrage fees.



SAP Manufacturing Integration and Intelligence

Our solutions for efficient food ingredient and commodity processing – real-time visibility into production operations accelerates the supply chain.

Real-time visibility into storage and processing locations

Optimize processing and production operations with real-time visibility into converting systems, conveyors, packaging lines, and weigh scales. Lower risk, improve safety and quality, and boost the return on assets.

Responsive processing and production

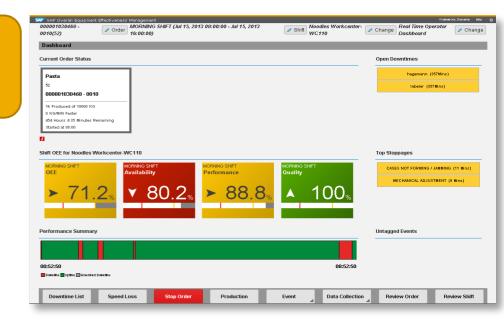
Digitize confirmations, postings, movements, and labeling through system integration and bar coding and through speedy handling of incoming materials and outbound loading for shipment.

Management of in-line quality

Capture quality data from incoming loads, storage locations, and outbound loadings; associate visual and laboratory data to any lot.

Real-time integration in the supply chain

Automate updates of process steps in enterprise resource planning to enable full supply-chain visibility.



SAP Meat and Fish Management by msg

A holistic solution for the meat industry that lends efficiency and transparency to complex planning, production and distribution processes by integrating all aspects of the meat business.

Planning across the meat value chain including disassembly planning

Livestock procurement and slaughtering functionality

Collection of all data on farming production and quality of arriving animals, and automatic slaughter data collection helps to speed up settlement, ensures transparency, and improves product safety.

Manage disassembly efficiently

Manage cuts and cut lists, enabling easier handling of all animal types and the resulting main products and by-products.

Integrated with SAP Catch Weight Management

Handle weight that changes over time or is unique by individual – allowing carrying of two units of measure that are independent of each other (pieces and pounds, for example) throughout the entire supply chain.



SAP Dairy Management by msg

A solution for dairy producers covering the entire production process used in the dairy industry, from raw milk procurement and processing to delivery to wholesalers and retailers. It also includes planning and controlling tools.

Dairy planning

Use flexible production and raw-material planning in all manufacturing areas to increase efficiency and prevent material losses.

Dairy operations

Benefit from daily department controlling of (raw) materials, ingredients, and services to make losses and disruptions immediately transparent.

Dairy costing

Analyze dairy processing costs, contribution margin, and raw-material utilization to obtain transparent costs, results, potentials, and targets.



SAP Global Track and Trace

A cloud solution providing supply chain visibility to support sustainability goals, increase food safety, improve customer satisfaction and ultimately protect your company's brand.

Capture and share Track & Trace data across global sourcing, production and fulfillment networks:

Captures, processes, and stores business process tracking information Supports modelling of new business processes and the milestones to be monitored.

Facilitates data sharing and visibility across multiple business partners and relevant stakeholders in a supply network to support business network applications.

Supports integration into the Internet of Things and business backend applications.

Onboarding of new and existing business partners using business partner application.



SAP Global Track and Trace

Enabling innovative business processes



Automated legal compliance



Better supply chain management (i.e. inventory reduction, waste control)



Innovative customer value, i.e. consumer traceability app (QR code showing video)



Recall processes



SAP Logistics Business Network, material traceability option

The blockchain-augmented solution is a cross-company supplychain product traceability and recall management SaaS offering. The initial release focuses on the food industry.

Improve transparency, visibility, and sustainability by connecting the entire supply chain in permissioned blockchain networks:

Leverages Blockchain technology as the key technology.

Enables companies to initiate own, permissioned networks or join a network of a supply chain partner.

Traces material provenance from raw material origin to finished product achieving end-to-end multi-ingredient food traceability.

Allows companies to connect with the entire upstream and downstream supply chain by sharing product provenance information in a trusted, shared data ledger.

Enables detailed upstream and downstream provenance analyses and cross-company alerting in case of product issues, helping to streamline recalls.



The Vision: From trusted source to consumer transparency and assurance.



"Farm to Consumer" track and trace or a trusted chain of provenance for consumer products

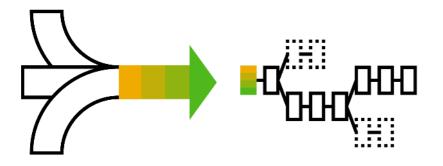
From Farm Input to Harvest/ Raw Material Origin

Unbroken and trusted chain of trading and preprocessing genealogy across n-tiered upstream Processing into finished product

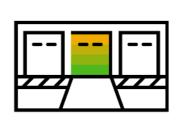
Fulfillment & Condition Monitoring (incl. temperature)

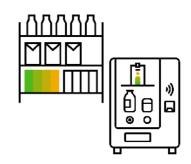
Shelf & Smart vending machine condition monitoring

Consumer Choice











Trusted material provenance to assure quality "Keep the brand promise"

Promote assured quality brands

Customer Success



Cargill: Improving Visibility and Bargaining Power with SAP® Transportation Management



Company
Cargill Incorporated

Headquarters Minneapolis, MN

Industry

 $Consumer \, products$

Products and Services

International producer and marketer of food and of agricultural, financial, and industrial products and services

Employees

131,000 employees in 66 countries

Transportation Spending

US\$4.5 billion annually, including \$500 million in truck spending

Web Site

www.cargill.com

Objectives

- Leverage consolidation opportunities across business units
- Provide clear visibility into freight spend
- Harmonize carrier experiences across the enterprise
- Strategically consolidate, manage, and reduce over US\$1 billion in yearly transportation spend

Why SAP

- Tight integration, from sales orders through freight payment and allocation, of the SAP® Transportation Management application (SAP TM) with existing SAP solutions
- Ability to support multiple shipping modes, such as less than truckload (LTL), truckload (TL), and rail
- Powerful optimization capabilities
- Very little customization required

Benefits

- Aligned rate structure across 72 business units
- Centralized rate data and management of freight exceptions
- Integrated both ordering and financial processes
- Improved performance and speed of transportation management
- Enhanced data access, reporting, and analytics

"We wanted a system that would improve visibility across the organization and allow us to leverage relationships, to negotiate rates, volume, and contracts. SAP Transportation Management is helping Cargill optimize opportunities across all of the business units."

SriRaj Kantamneni, Tartan Operations Lead, Cargill Incorporated

Greater

Economies of scale and efficiency for the 72 business units using SAP TM

Better

Visibility and control over more than US\$1 billion in yearly transportation spend

Lower

Costs with improved negotiation capabilities and operational efficiency

Florida Crystals: Sweetening Business Processes with SAP® Business Suite powered by SAP HANA®



Company

Florida Crystals Corporation

Headquarters

West Palm Beach, Florida

Industry

Consumer products

Products and Services

Cane and agave sugar grown and produced in the United States

Employees

2,200

Revenue

US\$462 million

Web Site

www.floridacrystals.com

Partner

Virtustream SAP® Consulting organization

Business challenges

- Consolidate data from heterogeneous systems at geographically dispersed sugar companies acquired by Florida Crystals
- Use technology to support ordinary business requirements and manage the challenges related to a growth-byacquisition strategy
- Gain value from the migration to a cloud-based IT infrastructure

Technical implementation

- Implemented the SAP ERP and SAP NetWeaver® Business Warehouse applications powered by the SAP HANA® platform
- Leveraged the SAP HANA Enterprise Cloud service with help from technology partner Virtustream

Key benefits

- Reduced costs and improved efficiency throughout the supply chain
- Allowed the workforce to devote more time to data analysis and less time to running data transactions
- Enabled real-time access to petabyte-scale data for accelerated business decisions

"SAP HANA isn't just in-memory technology, it's a new frontier. How long has it been since IT allowed you to go as fast as you can go? That's what SAP HANA brings to the table."

Don Wiittington, Vice President and CIO, Florida Crystals Corporation

1_{st}

Live customer with SAP ERP powered by SAP HANA and SAP HANA Enterprise Cloud

Up to **97**%

Performance improvement for key business processes

3 days

To migrate data to the cloud environment using the SAP HANA Enterprise Cloud service

Ernst Sutter AG Harnesses SAP® ERP for Leaner, Faster IT Processes



Company

Ernst Sutter AG

Headquarters Freienbach, Switzerland

Industry

Consumer products – food companies

Products and Services
Meat and meat products

Employees 1.100

Web Site www.ernstsutterag.com

Partners
Softproviding AG, Plaut AG

Objectives

- Adapt IT to new structures of parent conglomerate
- Upgrade operations to latest technologies
- Expand market position in Switzerland and boost exports to neighboring European countries

Why SAP

- Software support for crucial industry-specific regulatory functions, such as automatic batch tracking
- Foundation to support standards for consistent, streamlined processes enterprise-wide
- Standardized software for profit-center accounting with improved reporting at the group level

Benefits

- Central control of intercompany processes
- Ability to deal with stiffer regulatory requirements in the future
- Safe investment due to regular provision of software enhancements

Shorter

Lead times

Higher Capacity

Better

Stock inspections

"We have integrated our processes end to end, from the SAP software to the production equipment. This gives us more and better operational data and has improved transparency in all the organizational units."

Thomas Aeschlimann, Head of Information and Communication Technology, Ernst Sutter AG



Fertimig: Laying Foundations for Continuous Growth and Innovating Management Processes with SAP S/4HANA®



Company

Fertimig Fertilizantes Ltda

Headquarters

Rondonópolis, Mato Grosso, Brazil

Industry

Consumer products – agribusiness

Products and Services

Trade and import of fertilizers for crops and pasture; animal farming; eucalyptus plantation; research and development of grains; soybean exports

Employees

Web Site www.fertimig.com.br

Partner Agile Solutions

www.agilesolutions.com

Objectives

- Optimize management processes to support growth strategy
- · Deploy a solution that would incorporate the long-term growth of the company
- Ensure information security
- Count on reliable data for making major decisions
- Meet the demands of corporate governance

Why SAP

Offered a solution that met the company's demands for innovative management and its cost requirements

Resolution

- Implemented the SAP S/4HANA® Finance solution and totally integrated it with the Agro solution, developed by Agile Solutions on an SAP® platform
- Completed the project in 8 months, led by Agile Solutions
- Redesigned business processes
- Used baseline methodology to speed deployment

Benefits

- Optimization of processes
- Removal of data inconsistency for faster accounting and financial closing
- More time for strategic tasks
- Reliable information, in real time, for decision making
- Support for corporate governance

"With SAP S/4HANA Finance, Fertimig started counting on optimized processes and integrated management to support its audacious growth target set for 2020."

Diogo Gonçalves Nunes, Controller, Fertimig Fertilizantes Ltda

50%

Faster financial closing process

Real-time

Reports for decision making

50%

More time for strategic tasks

100%

Reliability of information



Fonterra Co-Operative Group Limited

Auckland, New Zealand www.fonterra.com/nz/en.html

Industry

Consumer products

Products and Services

Milk, cheese, butter, and other milk-derived foods

Employees

22,000

Revenue

NZ\$17.2 billion (US\$12.6 billion)

SAP® Solutions

SAP® ERP application and the SAP Fiori® user experience (UX)

Keeping the Milk Flowing with the SAP®

Innovative Business Solutions organization

Global dairy co-operative Fonterra worked with the SAP Innovative Business Solutions organization to simplify process order management at its Cobden milk processing plant in Australia. As a result, Fonterra workers there now use a consumer-like interface that helps improve data quality and reduce errors.

Before: Challenges and Opportunities

- Need to ensure product quality
- · Capture and document accurate production details consistently
- Keep production running on schedule

Why SAP

- · Availability of design thinking workshops to gather input and ideas from employees on the plant floor
- Support of the SAP Innovative Business Solutions organization to help ensure on-schedule deployment
- Customized SAP Fiori® app that helps simplify underlying process-order management functionality

After: Value-Driven Results

- · Instant visibility into process order progress
- · Faster data capture and reduced processing times
- · Lower business risk due to error reduction and easier correction
- · Improved operator and supervisor productivity
- · Reduced training costs
- An extensible app to be rolled out at Fonterra's other facilities

>200

Operator and supervisor processes streamlined

>99%

Reduction in time to correct overproduction errors

62%

Reduction in time to enter inspection identification



Watch this video to see Fonterra's Cobden processing plant in action.

"Our mantra in manufacturing is more floor time, less terminal time."

Rob Howell, General Manager of Manufacturing Operations Australia, Fonterra Co-Operative Group Limited

Johnsonville Sausage: Bringing Big Taste to Cooking Enthusiasts Worldwide with SAP® Global Trade Services



Company

Johnsonville Sausage, LLC

Headquarters

Sheboygan Falls, Wisconsin

Industry

Consumer products

Products and Services

Fresh and smoked-cooked sausage products

Members

1,600

Web Site www.johnsonville.com

Objectives

- Support international business growth without increasing full-time staff
- Replace inefficient, manual export processes
- Integrate with freight forwarders and customs-certified systems

Why SAP

Selected the SAP® Global Trade Services (SAP GTS®) application for functionality and reduced longer-term total cost of ownership after blueprinting with a competitive cloud-based provider

Resolution

- Simplified landscape with the integration of SAP GTS to the SAP ERP application
- Utilized existing reporting tools from SAP
- Automated forms coming from SAP GTS and SAP ERP including USDA certificates and Shipper's Letter of Instruction
- Used flexible and easy-to-maintain Adobe forms available with SAP GTS
- Minimized reconciliation and data validation activities with trusted data and automated information flows

Future plans

- Expand solution usage to include import functionality, sanctioned-party screening, and export self-filing with U.S. Customs
- Deploy SAP GTS with the SAP S/4HANA suite

"When evaluating global trade solutions, consider all costs, as some costs are buried in integration requirements and are affected greatly with an increase in volume and document counts, as well as change fees. With SAP GTS, we did not have these additional costs."

Jason Beyersdorf, IT Business Partner, Johnsonville Sausage LLC

Reduced

Tactical, daily work for trade compliance professionals

Lower

Total cost of ownership, utilizing internal resources supporting SAP GTS

Fewer

Supply chain disruptions due to automation of trade activities

S/4HANA for Agribusinesses - a step towards the Intelligent Enterprise

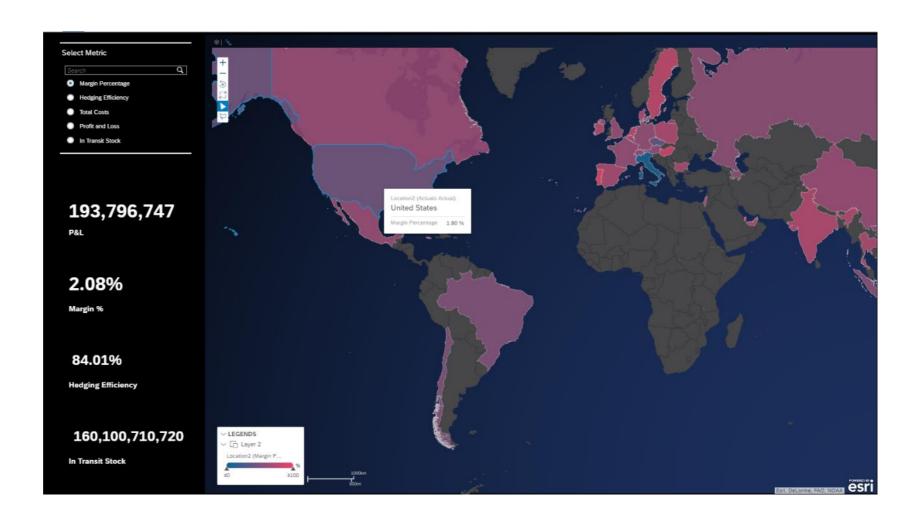


The intelligent enterprise: Analytics / Digital Boardroom

Strengthen executive decision-making with real-time, accessible insights

Change the way you run your meetings:

- Use real-time analytics & simulation capabilities jointly
- No need to gather data and prepare reports upfront to the meeting
- Quicker decision making

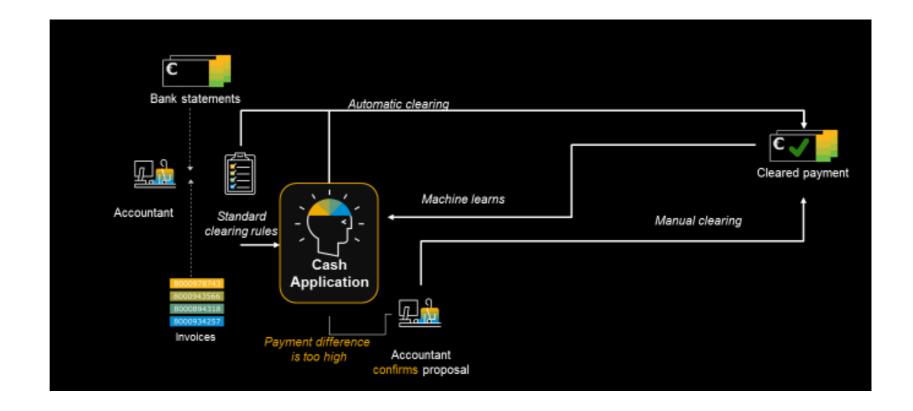


The intelligent enterprise: Machine Learning will reinvent businesses

S/4HANA in conjunction with Machine Learning will ease a multitude of business tasks

Example: SAP Cash Application

- Automate labor-intensive invoice matching processes and free finance professionals to focus on strategy and service quality
- Use machine learning to match criteria from your history and automatically clear payments

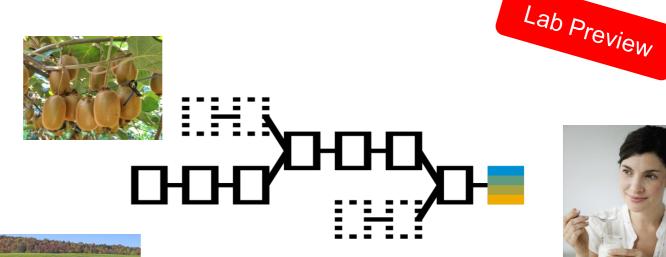


The intelligent enterprise: Farm-to-Consumer solution leveraging Blockchain

Example: Traceability of multi-ingredient food production across an n-tiered supply chain

Improve transparency, visibility, sustainability, and efficiency by connecting the entire supply chain

- Proof of concept with a group of customers to enable transparency of food genealogy across the entire supply chain by leveraging blockchain and SAP traceability solutions
- Business goals were to reduce food waste, streamline recalls and reduce the amount of products to be recalled
- After a successful POC, SAP is now planning to productize a Farm-to-Consumer solution





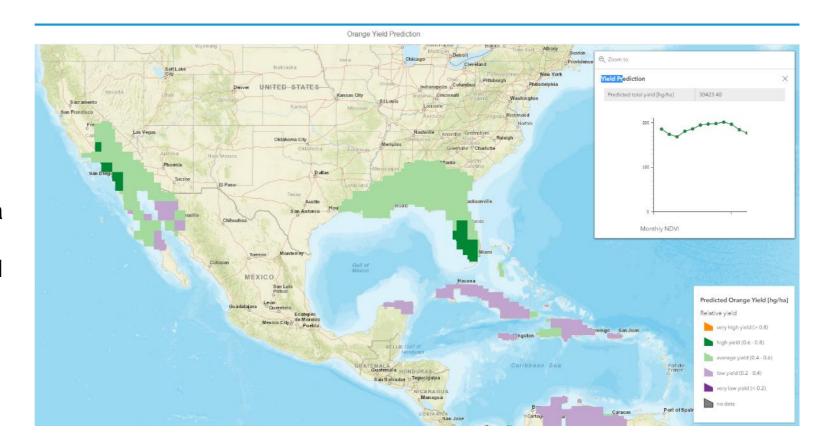


The intelligent enterprise: SAP HANA Data Management Suite

Enabling next generation business processes through data driven decision support

Example: Orange Yield Prediction powered by the SAP Data Hub, SAP Cloud Platform and the SAP Spatial Suite

- Collect big data from geospatial engines, sensors, weather services, commodity market data and connect it through the SAP Data Hub with companies owned business data
- Provide timely and reliable insights for decision making including trading relevant information



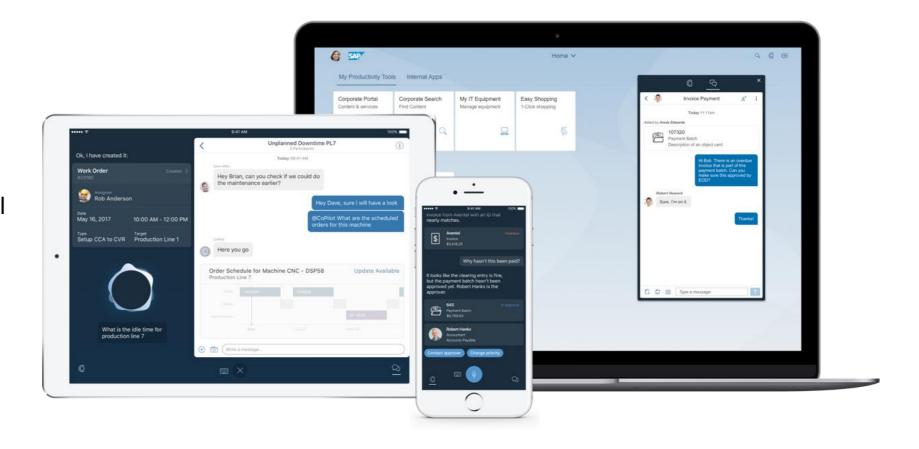


SAP CoPilot – the digital assistant for the intelligent enterprise

Enabling a humanized user experience for your SAP applications

Taking business system interaction to the next level

 SAP CoPilot processes natural language and will therefore ease the interaction with system and business data even more, similar to interaction with modern devices



Summary

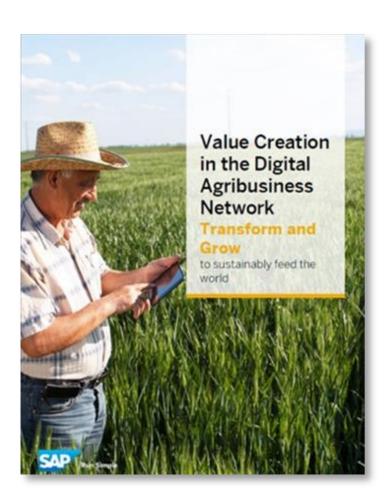


Summary

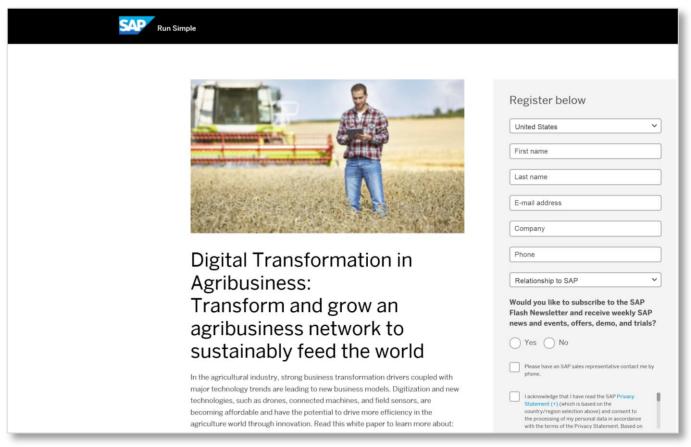
- SAP is focusing on agribusiness.
- A broad portfolio of solutions is available today to add value to our customer's businesses.
- Digitization is a major opportunity for the agribusiness industry.
- SAP is co-innovating with customers to develop industry leading digital agribusiness solutions – the councils are a key driver for this.
- We are ready to engage with our agribusiness customers on their digital journey.



Whitepaper for digital agribusiness



https://www.sap.com/industries/agribusiness.html?source=social-atw-mailto#pdf-asset=2242eae2-6a7c-0010-82c7-eda71af511fa&page=1







Thank you

Contact information:

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