





Only 44% of consumers globally trust industrially prepared food

Source: Nielsen

State of CP industry, enabling the Intelligent Enterprise

Food Safety & Transparency

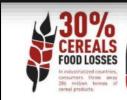
Facts and figures

An estimated 600 million – almost 1 in 10 people in the world – fall ill after eating contaminated food and 420 000 die every year.

Safe food is critical, not only to better health and food security, but also for **livelihoods**, **economic development**, **trade** and the international reputation of every country.



One-third of food produced for human consumption is lost or wasted globally, which amounts to about 1.3 billion tonnes per year.















<u>According to Nielsen's 2017 report</u> into transparency, only 44 per cent of consumers trust industrially prepared foods. All of these diverse factors have combined to fuel consumer appetite for transparency

While 66 percent of global consumers are willing to pay more for <u>sustainable</u> goods, a full **73 percent of Millennials** are (Nielsen defines Millennials as those born from 1977 to 1995).

,The <u>need</u> for transparency is driving dramatic shifts in the food retail industry that impact how business as usual is done for both brands and retailers.

Colour coded Nutri-score becomes France's official nutrition label





Große Mehrheit der Verbraucherinnen und Verbraucher will Nutri-Score-Ampel

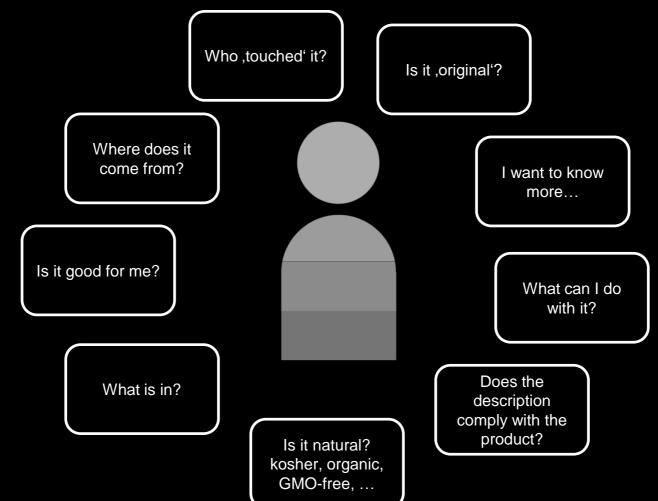
NACHRICHT | 14.08.201

Die Mehrheit der Deutschen spricht sich für eine Kennzeichnung von Lebensmitteln mit der Nährwertampel Nutri-Score aus – das ist das Ergebnis einer repräsentativen Forsa-Umfrage.

'Today's consumers want to learn more about the food they eat, but transparency does not mean more information, Rather, consumers seek access to cues, clues, signals and unique opportunities to engage with brands.'

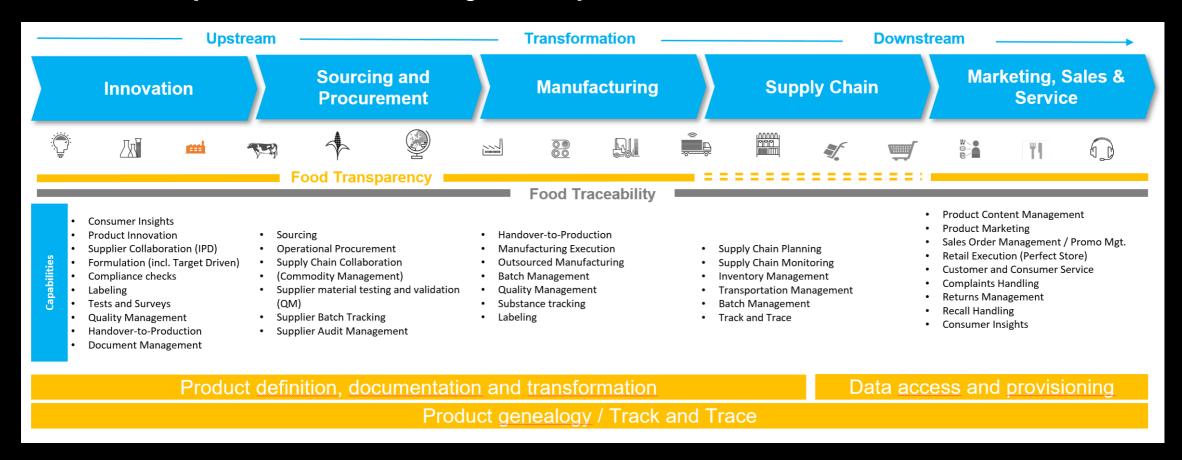
Consumers want to take back **control** and **request more information**





Sustainability requires a strategic approach

Data ownership is critical to assure highest responsiveness across all business functions



'77% of the world's transactions touch an SAP system'

Thomas Saueressig, SAP

Consumer augmented by blockchain

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

Building a farm to consumer cloud solution

- leveraging the SAP Cloud Platform Blockchain Service
- integrated with SAP's core supply chain solutions

Business goals:

- reduce food waste
- streamline recalls
- reduce amount of products to be recalled

SAP closely collaborates with leading food companies

















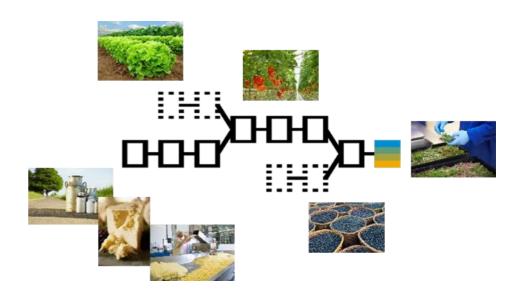












Traceability of multi-ingredient food production across an n-tiered supply chain

From Ocean to Table with SAP Intelligent Technologies



Quote

"Our blockchain project will transform the way we manage our social responsibility with the suppliers and fishing villages of Indonesia.

We share a united passion and commitment to the environment and sustainability with the Indonesian fisherman which will result in improved livelihood for them and their communities."

Tony Costa SVP, CIO Bumble Bee Foods

- SAP and Bumble Bee continue to innovate and improve upon seafood traceability as more and more consumers demand to know their food is safe and sustainably sourced.
- Bumble Bee Foods is a member of the customer co-innovation group for farm to consumer augmented by Blockchain
- They were just selected for an SAP Innovation Award in the category of Social Hero for Sapphire 2019.



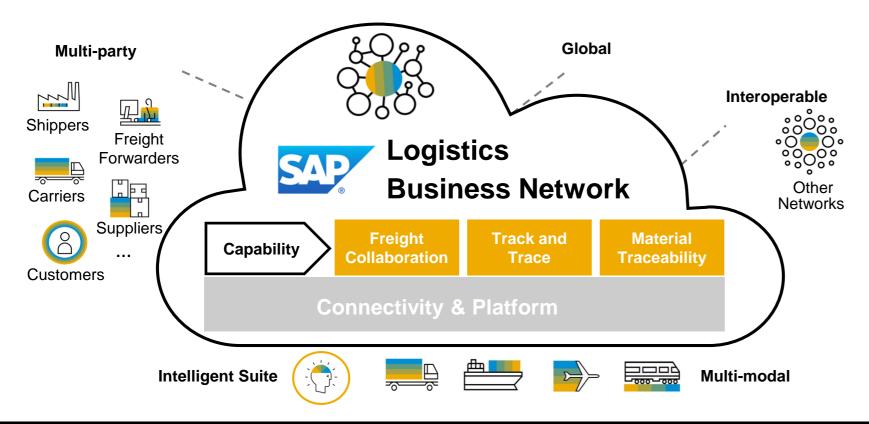






SAP Logistics Business Network vision

Increased business speed through an always on, secure network



- Onboard once –
 collaborate with many,
 anywhere and anytime
- Allow different stakeholders to consume logistics services and share insights
- Integrate with SAP digital core by design





Connect multiple business partners for inter-company collaboration and transparency

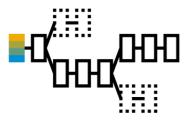


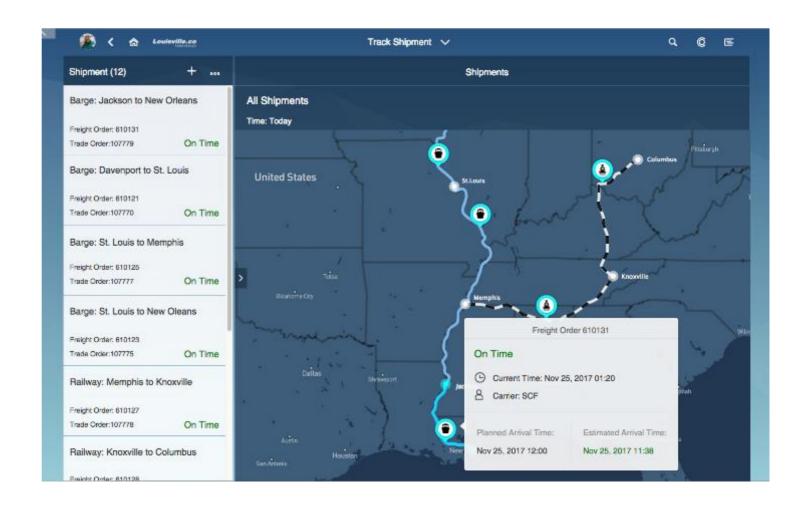
Standardized services for logistics collaboration and insights

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Grain trading scenario powered by blockchain

- Real-time transparency on barge transports in blockchain
- Natively update status from Digital Core
- Fully automate process steps in Bill of Lading
- Embed artificial intelligence to propose trading options



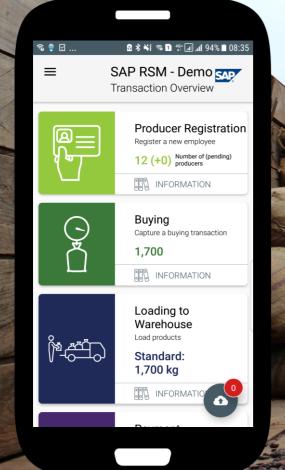


Reimagine work



SAP Rural Sourcing Management

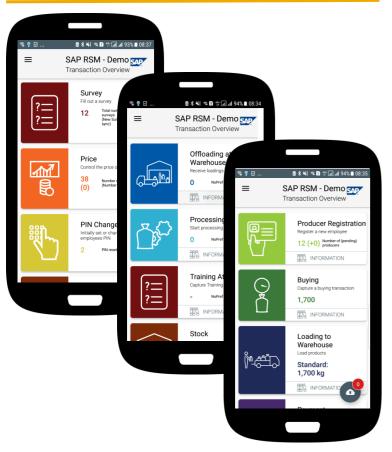
Enabling the digital inclusion of smallholder farmers



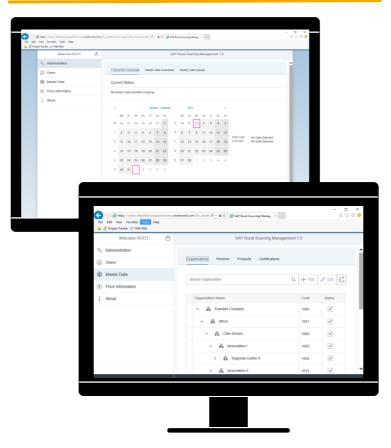
- Innovative mobile applications for the digital inclusion of smallholder producers.
- High-volume transactions like farmer registration, field mapping, input supply, grading, purchase, logistics and payments are recorded and synchronized in the field in real time via smartphone.
- Further applications support data analysis, facilitate operational field support and ensure traceability.
- Digital track records serve as basis for financial services for smallholder producers.

SAP Rural Sourcing Management solution

1 Smartphone App for Field Agents



Desktop Web Access for Central Operations



Mobile and Desktop for Management Analytics

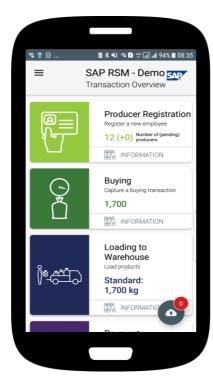


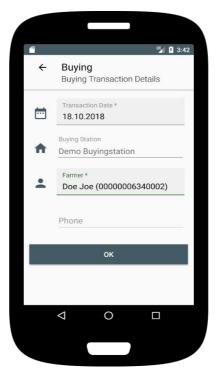
Smart phone application for field agents

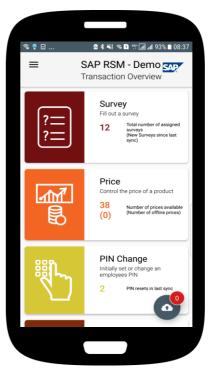
Use Cases and Functions

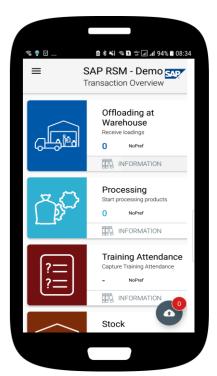
- Farmer registration and master data
- Famer surveys
- Training attendance
- Price information
- Farmer purchasing
- Certification and traceability
- Advances and (m-)payment
- Transportation logistics
- Grading and quality indicators
- Input supply and distribution
- Delivery agreements
- Geographical field mapping
- And more











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Features

- electronic traceability from the earliest stage of individual farmer deliveries to the weighing bridge
- electronic data-capture with smart phones no paper
- offline-enabled and bandwidth-optimized

Available since March 2020: SAP Rural Sourcing Management release 2.0

Updated state-of-the-art mobile **User Interface** and new **key features**:



Input supply and distribution capturing the provision of fertilizers and seeds to smallholder farmers



Training attendance to monitor farmers' training activities and training effectiveness



A **Delivery Agreement** proofing the handshake agreement between a buyer and a farmer on how much of a specific crop a farmer intends to deliver



Farmer PIN protecting smallholder farmers' data and regulating feature access.

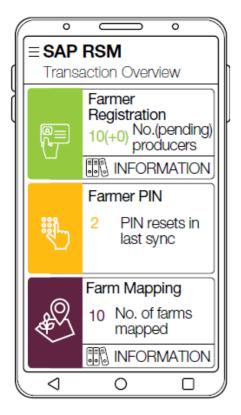


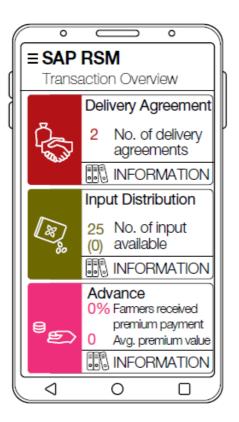
Field Mapping adding geographical information to transactional data

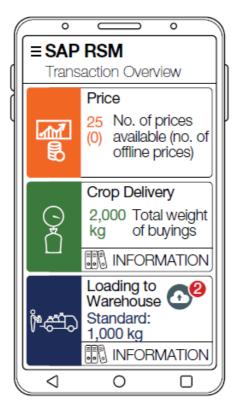


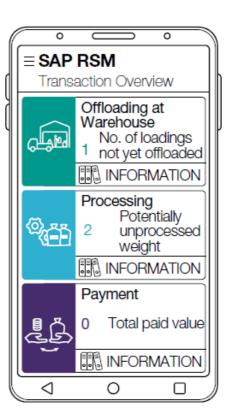
Recording **change of ownership** of smallholder fields (garden sales)

Overview of mobile functions











2

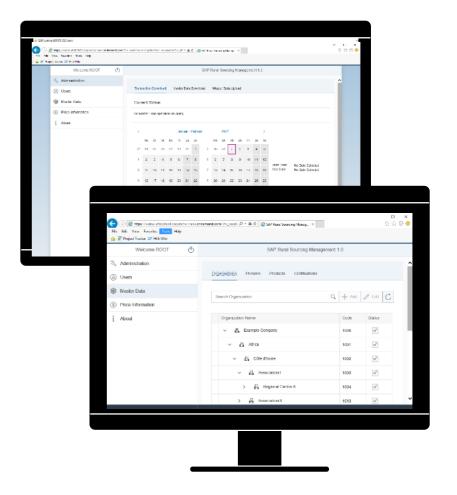
Desktop web access for central operations



- (Mass) master data management including organizations, people, products, certifications
- Data access management
- Price information and distribution
- Training assignment
- Survey setup



- Comprehensive supply chain management
- More efficient operations, including up-to-date information on storage and logistics
- Enables direct exchange of information with market participants
- Immediate targeted responses to quality incidents



Mobile and Desktop for Management Analytics and Reporting



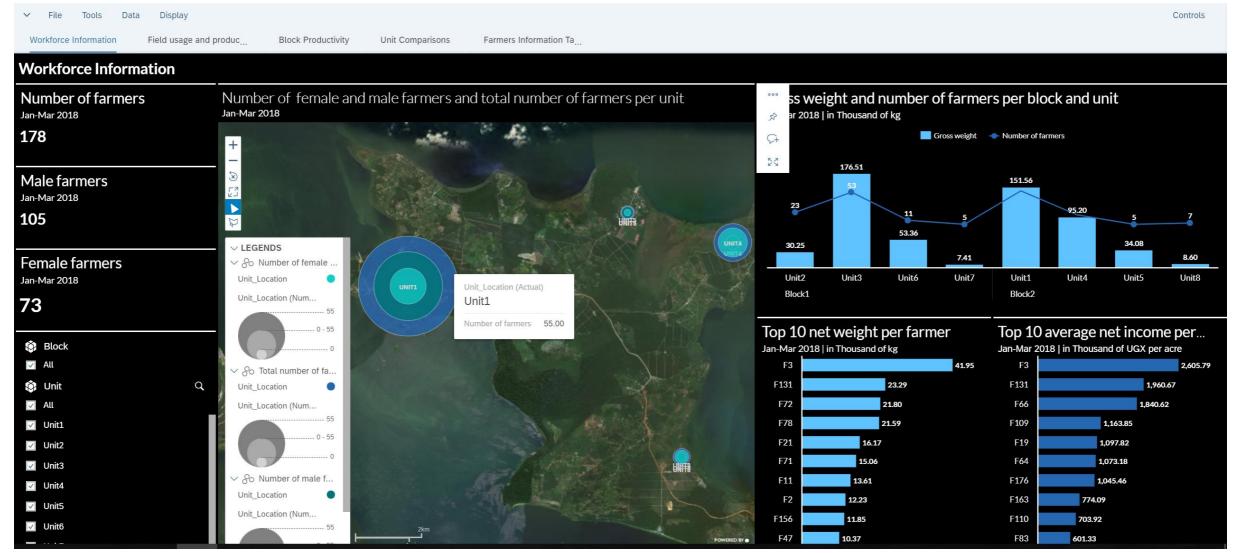
- Transactional analytics
- Self-service analytics (ease of use)
- Geographical information display
- Geoanalytics and tracing
- Standard geovisualization
- Information charts and dashboards
- Sustainability KPI definition
- KPI sharing with customers and partners
- Integration with Excel

Features **

- Highest security standards
- 100% offline-enabled
- High-performance analytics for big data
- Mobile and Desktop



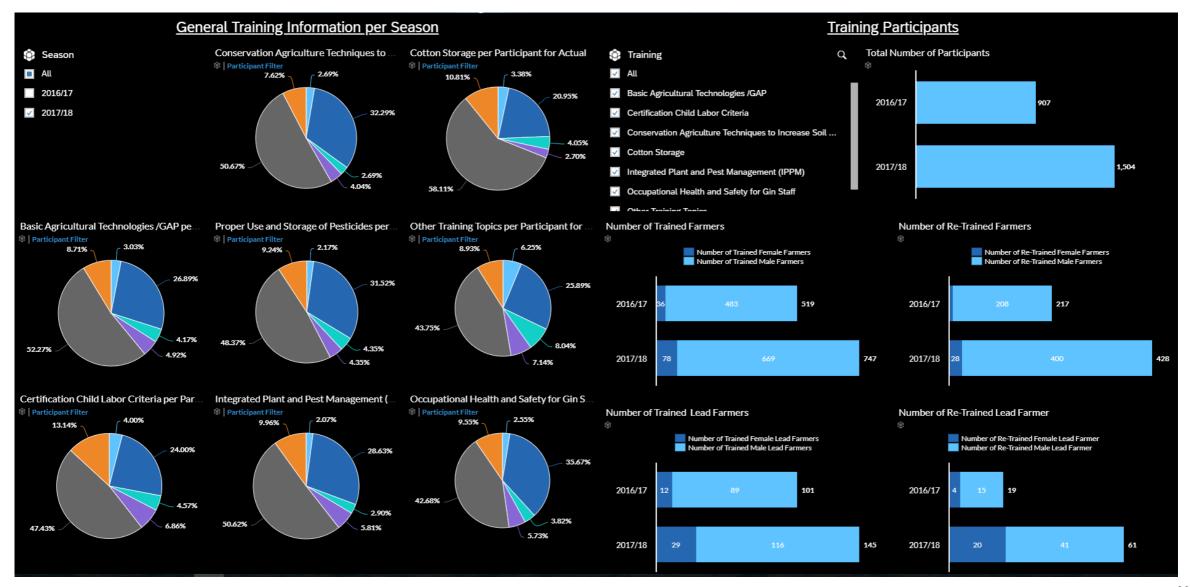
Example: Smallholder production information



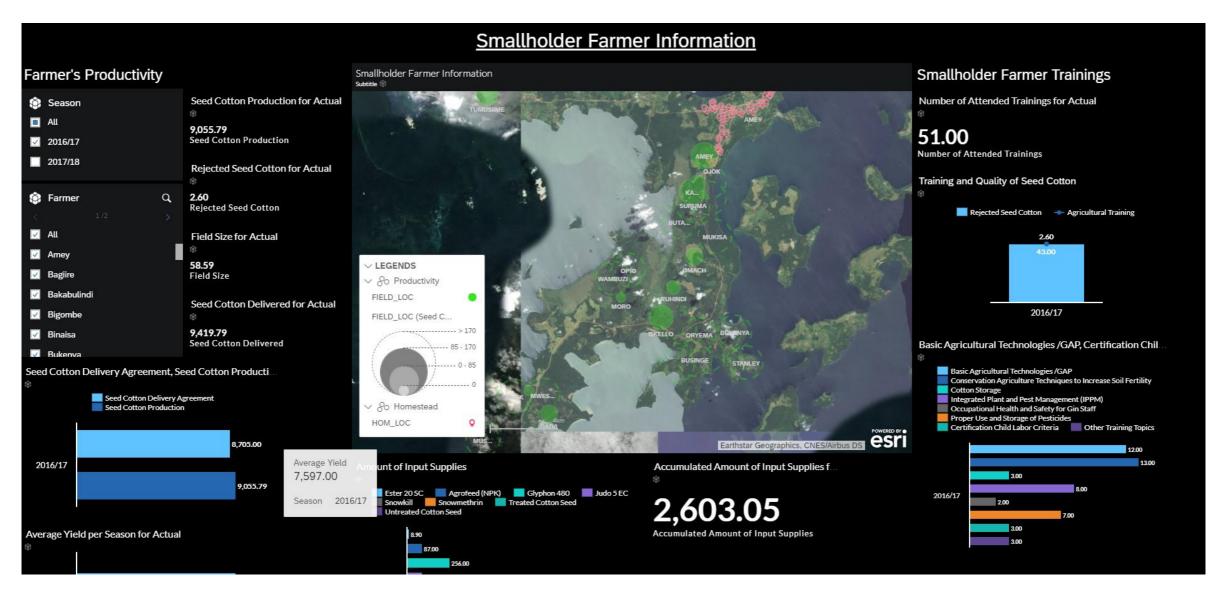
Example: Dashboard supplier performance



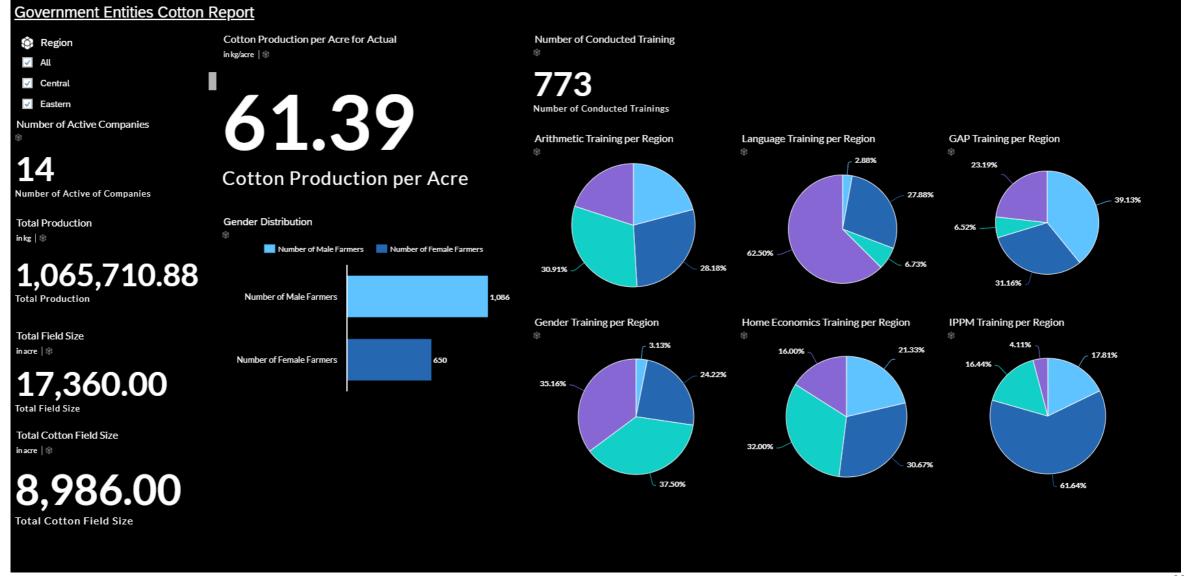
Example: Dashboard training attendance



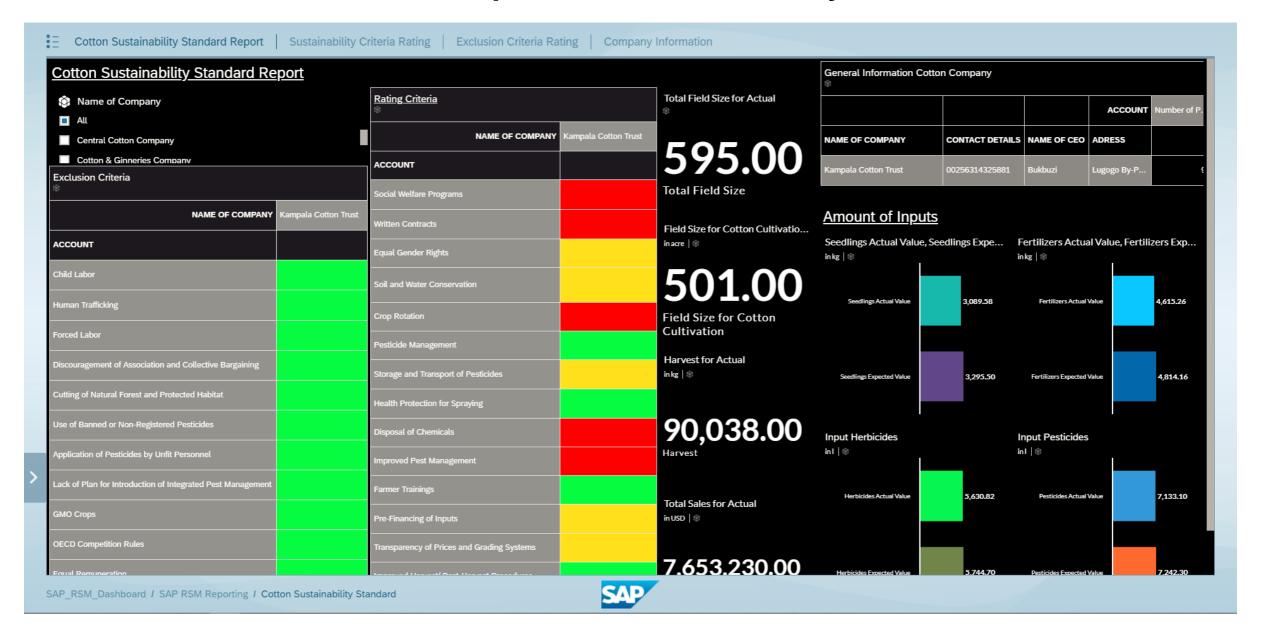
Example: Dashboard smallholder farmer information



Example: Dashboard reporting for government organizations



Certifiers: Self-assessments, production, traceability





SAP helps Barry Callebaut Realize Sustainable Cocoa Farming

Barry Callebaut collaborates with SAP to offer an innovative app to boost sustainability data management

June 20, 2016

Towards more traceability and sustainability in cocoa farming

- New collaboration on a groundbreaking data management tool
- Innovative tool for cocoa bean traceability and better farm impact measurement
- 65,000 cocoa farmers to participate across Côte d'Ivoire



Sustainable Palm Oil with SAP Rural Sourcing Management

- 80% of Uganda works in agriculture
- Kalangala Oil Palm Growers Trust
 - Develops best practices for local farmers
 - Gives access to new customers
 - Leverages SAP Cloud-based technology to increase traceability, sustainability, and quality of crops
 - Have instant oversight into all the transactions happening and the productivity of their 2,000 farmers
 - Help smallholder famers to secure their income and be able to pay school for their children



https://www.forbes.com/sites/sap/2018/02/27/how-digital-agriculture-is-helping-uganda-grow-its-middle-class/#251e4dd91148

SAP is a member of Business Call to Action (BCtA)



- BCtA aims to accelerate progress towards the Sustainable Development Goals (SDGs) by challenging companies to develop inclusive business models.
- It is supported by several international organizations and hosted by the United Nations Development Program (UNDP).
- SAP has joined BCtA with an aim to cater to the needs of different market segments, including small and mid-sized organizations, to accelerate and scale impact on smallholder farmers.
- SAP Rural Sourcing Management supports our corporate customers to achieve their sustainability goals and build a supply chain that reliably links farm and logistics processes in order to ensure full traceability in foods and fair compensation to farmers for their labor.



The SAP Rural Sourcing Management solution links farmers digitally to the agriculture value chain through a suite of mobile business applications running on the SAP Cloud Platform.



External sources of information:

- Rural Sourcing on sap.com
- Explore our solutions on SAP Solution Explorer

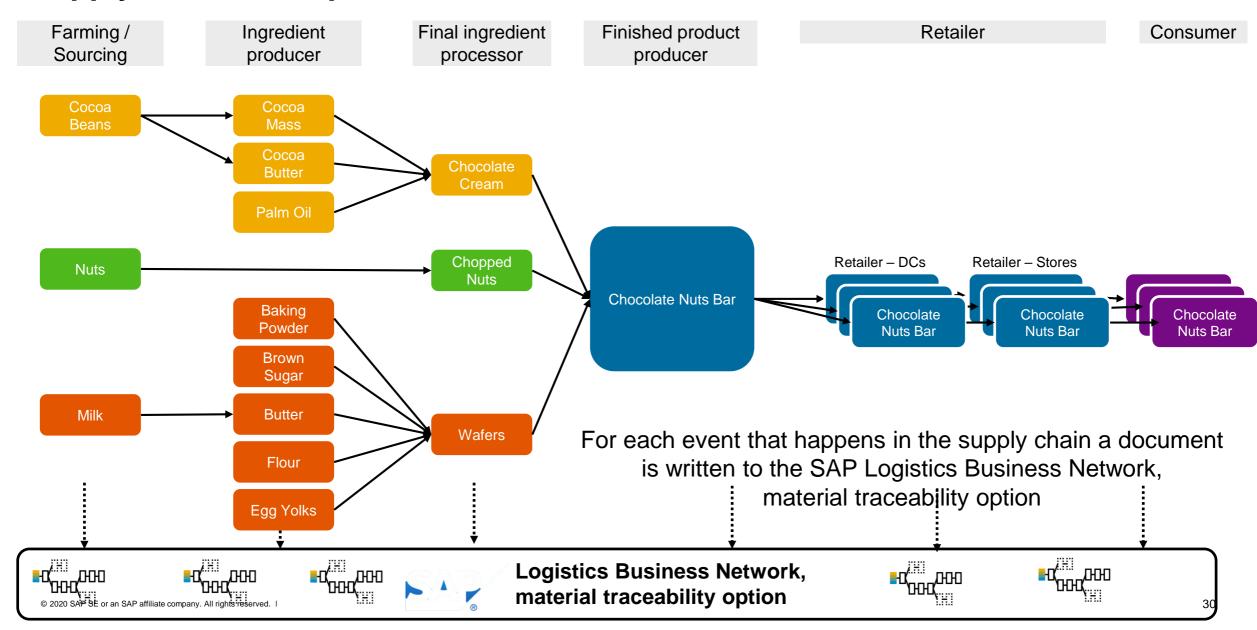
Or send an e-mail to agribusiness@sap.com



Material Traceability Blockchain Demo



Supply Chain Example for a Chocolate Nuts Bar



Example Scenario Description – Consumer Transparency

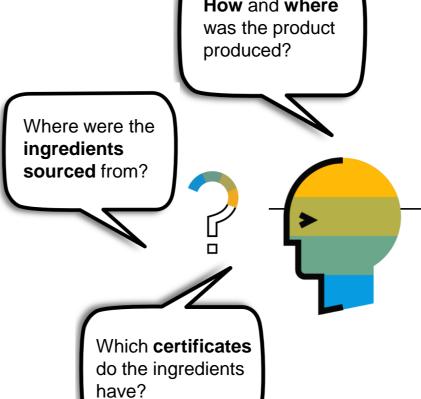


A company wants to introduce the new product Chocolate **Nuts Bar** to the market.



The new product is sustainably sourced and certified with a sustainability label.

The company wants to provide information to their customers to differentiate their product from the competition.



How and where

Keep the brand promise

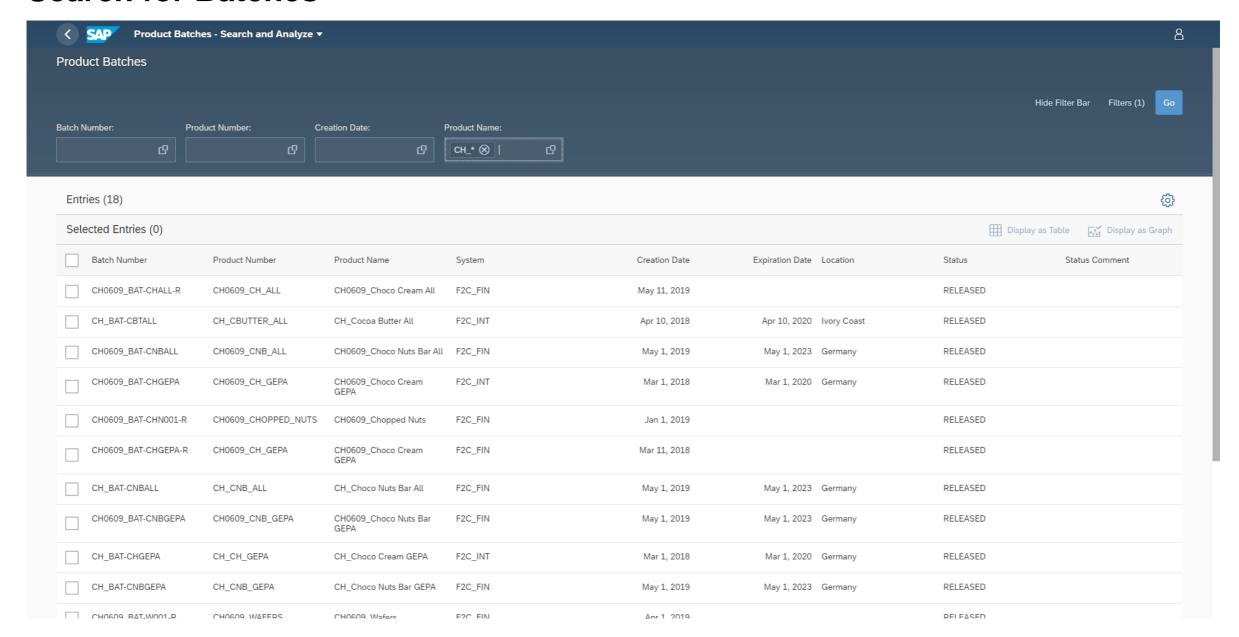
Increase consumer's trust

Address new customers

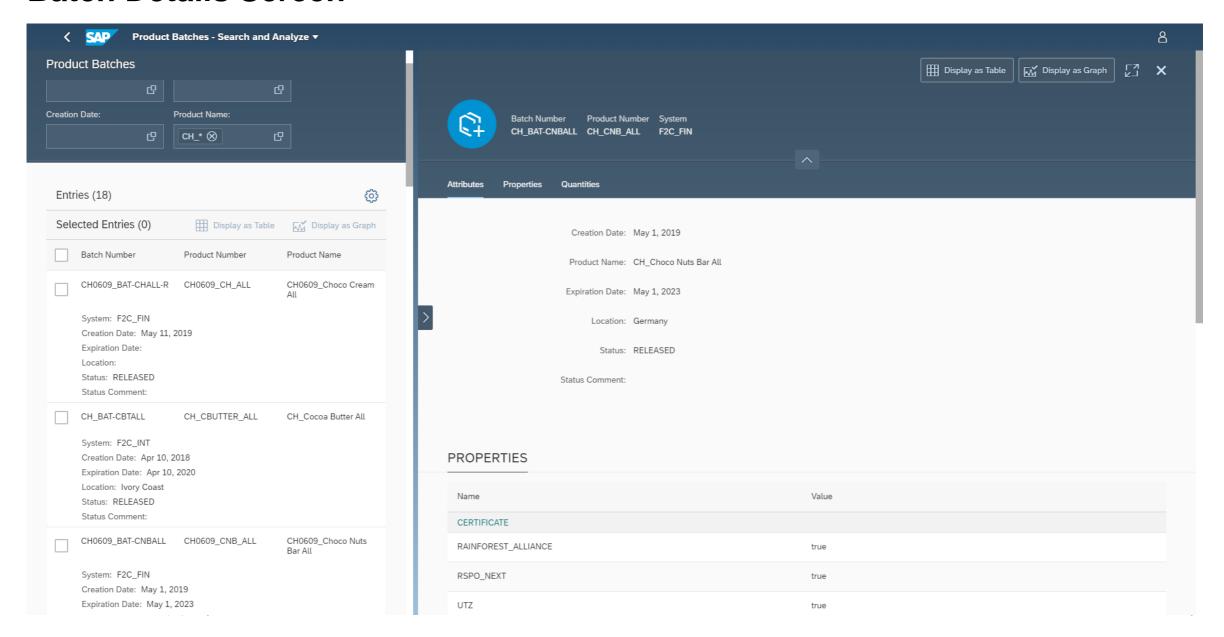
Home screen



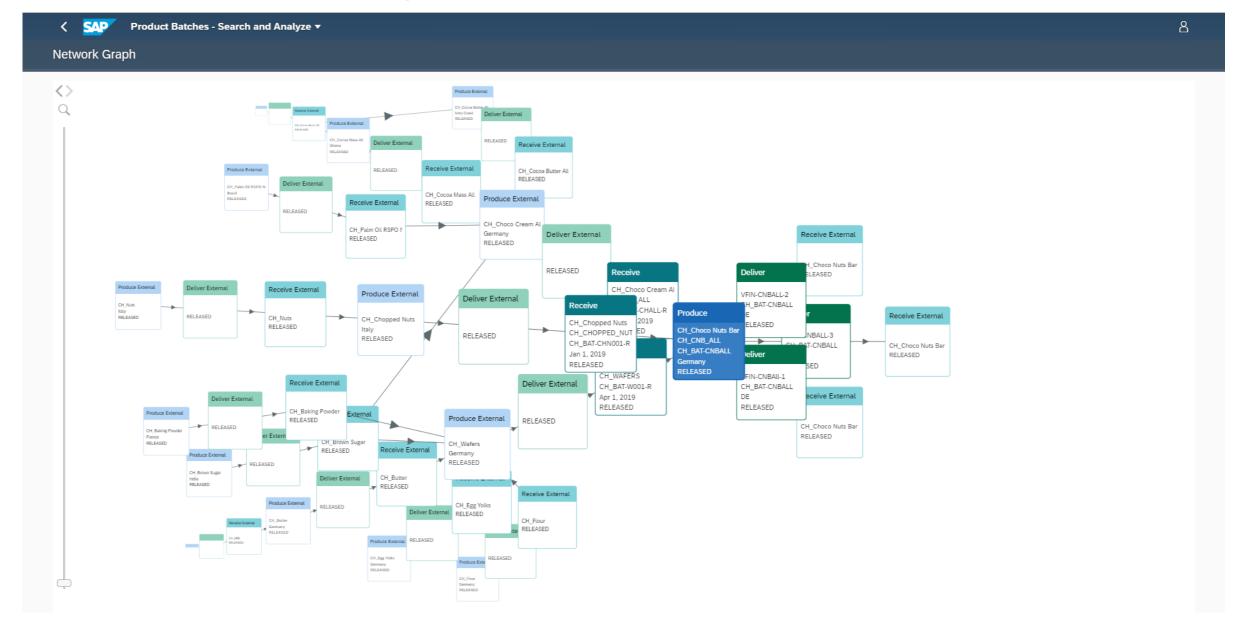
Search for Batches



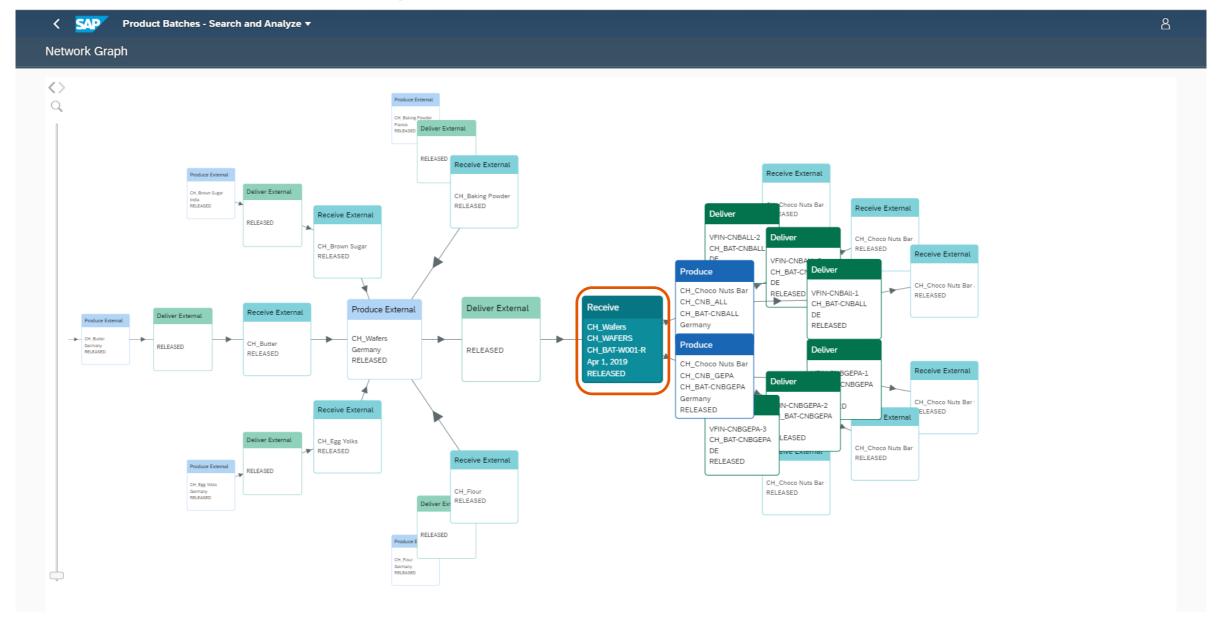
Batch Details Screen



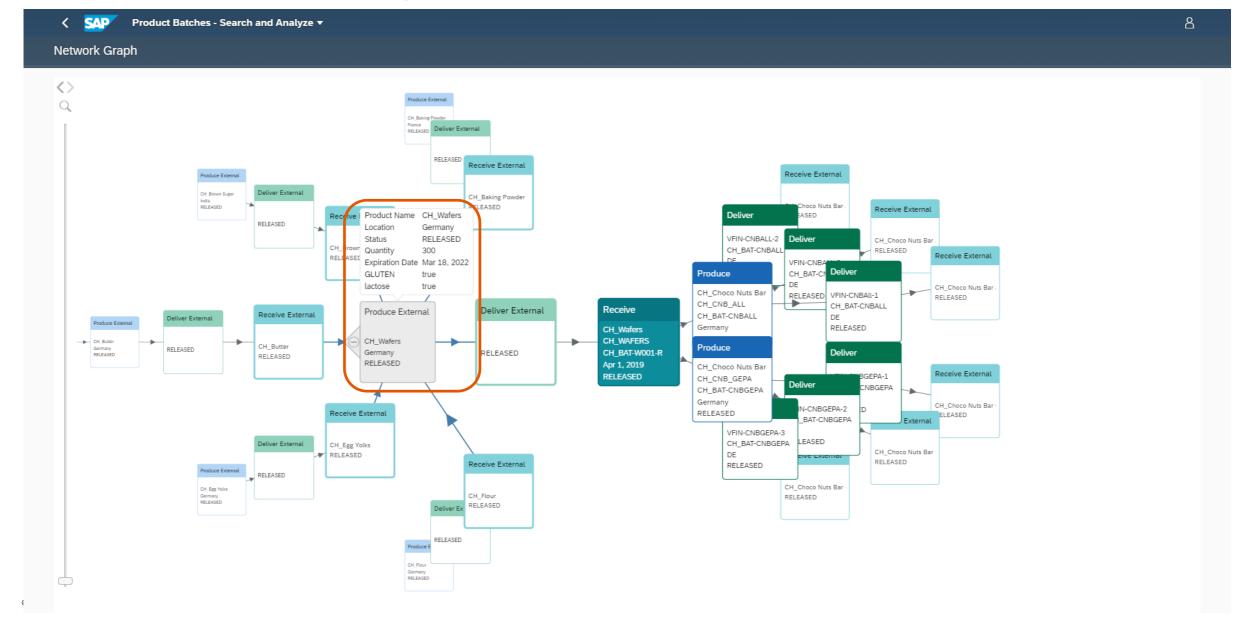
Graphical UI for Genealogy Analysis



Graphical UI for Genealogy Analysis – Switch Root Node



Graphical UI for Genealogy Analysis – Details of Upstream Data



Example Scenario Description – Product Issue and Recall



A product issue is detected for chopped nuts. Metal pieces were found during QA inspection at the ingredient producer.

How many supply chain **partners**, **regions** and **products** are already affected?

Where was the product **distributed** to?



producer wants to react quickly to reduce the overall impact and cost of the product issue.

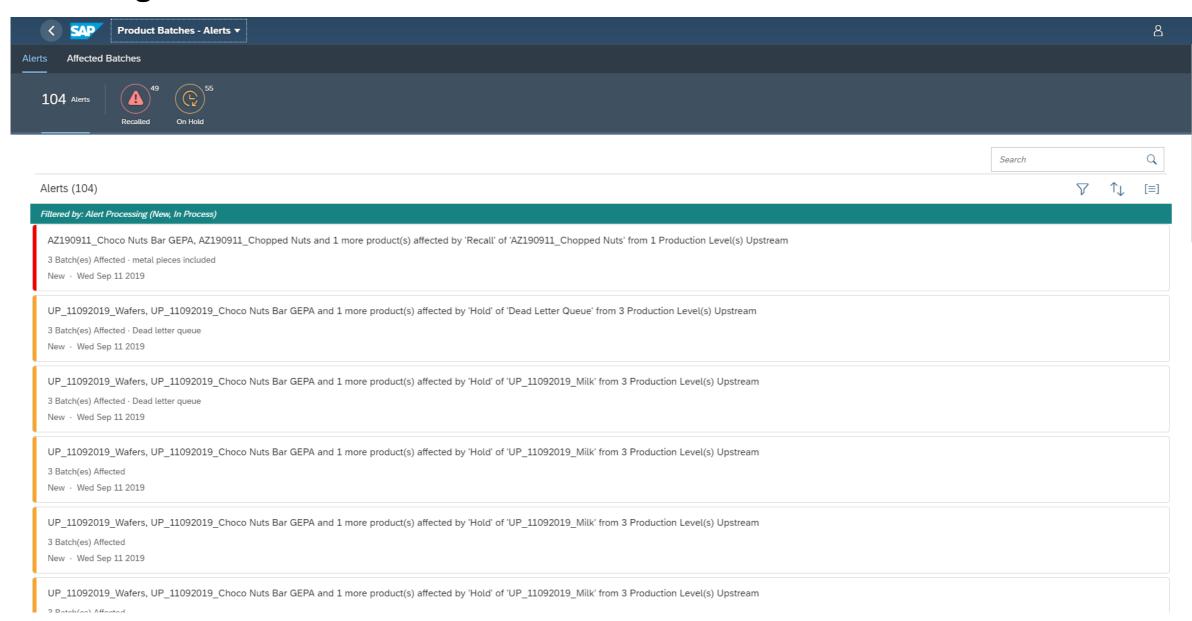
How to inform quickly all affected partners to stop spreading the issue?

- Lower costs by precise recalls
- Protect brand reputation
- Increase food safety

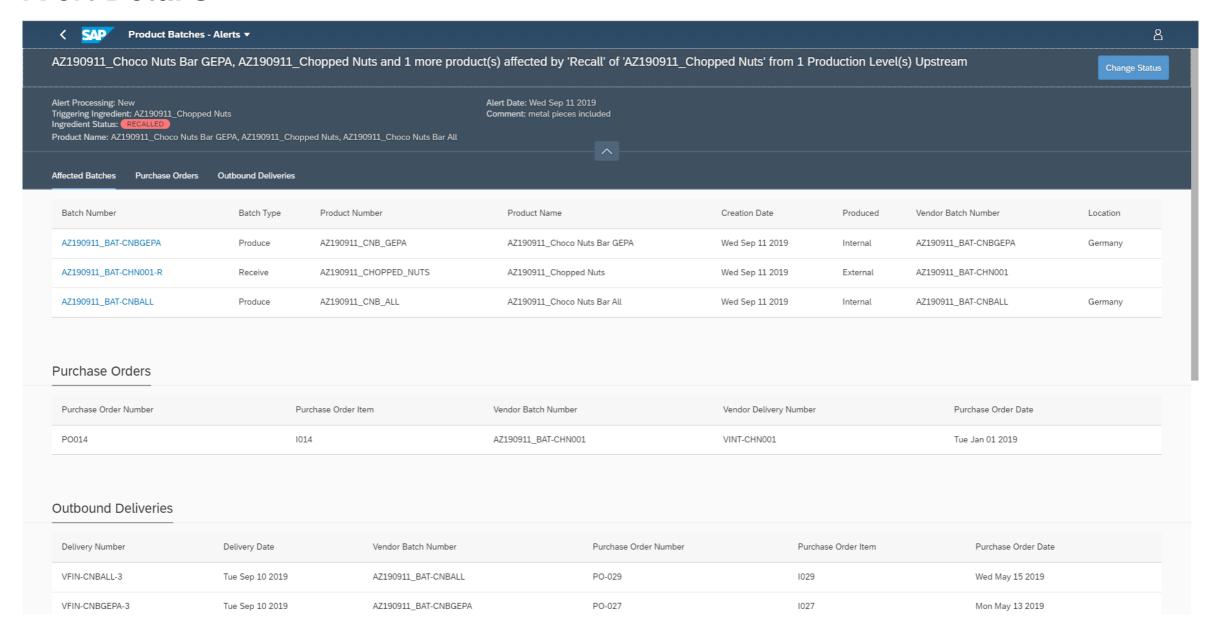


The chopped nuts

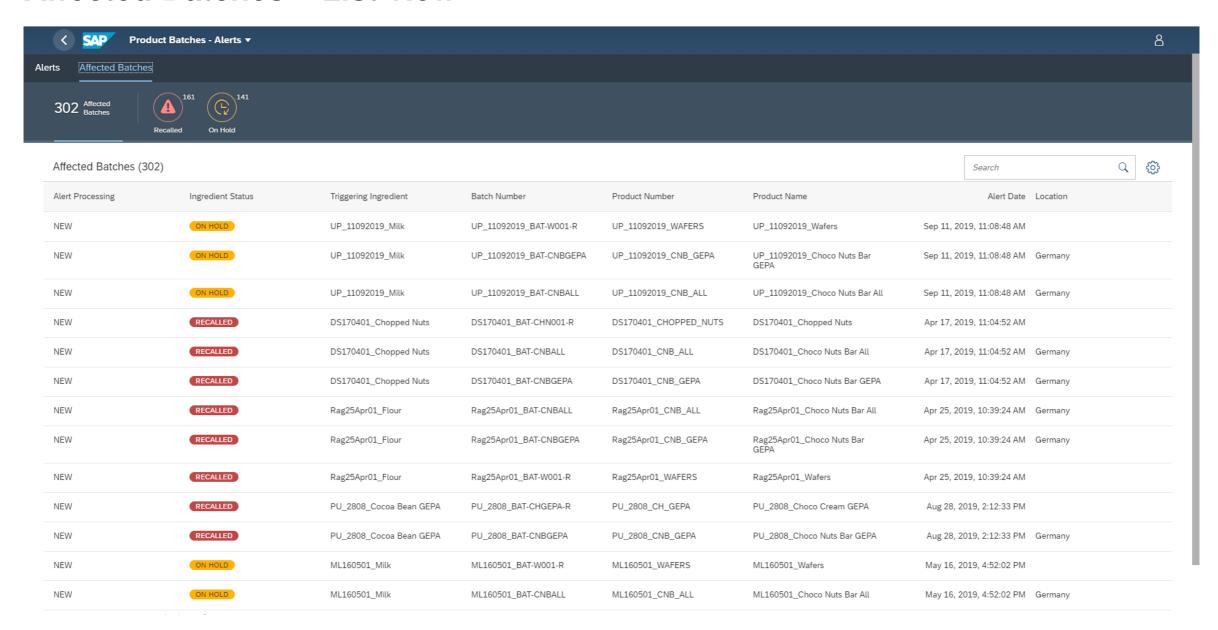
Incoming Alerts



Alert Details



Affected Batches – List view



Thank you.

Contact information:

agribusiness@sap.com

