



Resilient supply chains start with synchronized planning

Strategy Overview

David Vallejo, SAP
September 2022

PUBLIC

THE BEST RUN 

Supply Chain resilience remains being a priority topic



AUTOMOBILES

Toyota to halt Russia production Friday as sanctions cut supply chain

Top automaker joins Honda in stopping exports to the country



Toyota Motor's assembly plant in St. Petersburg, Russia. © Reuters

KOSEI FUKAO, Nikkei staff writer
March 5, 2022 00:19 JST • Updated on March 5, 2022 05:48 JST

FRANKFURT, Germany -- Toyota Motor will suspend auto production in Russia from Friday as it struggles to source parts from overseas amid sanctions against the country.

Supply Chain Woes Could Worsen as China Imposes New Covid Lockdowns

American manufacturers are worried that China's zero-tolerance coronavirus policy could throw a wrench in the global conveyor belt for goods this year.



PBS NEWS HOUR



U.S. warns that chip shortage could sh factories

JAN 25, 2022, 7:02 PM EDT

WASHINGTON (AP) — The U.S. supply of computer chips

yahoo/finance

How Russia's invasion of Ukraine affects 'everything on the supply chain': Analyst

Dani Romero

Fri, March 11, 2022, 3:06 PM • 2 min read

Explained: Why may lead to a sh

A key feature in a chip shortage is that creates pent-up demand that becomes

Written by [Pranav Mahal](#) Edited by Explained Desk | New D
Updated: March 19, 2022 01:00 am



Russia supplies over 40 per cent of world's palladium and Ukraine produces 70 per cent of which are key elements in production of the chips.

Supply of semiconductors, which plummeted due to Covid-related had started picking up as manufacturing chains normalised, is now threatened once again by the Ukraine crisis. This is on account of key raw materials — neon and palladium — that are at a risk of be

Economists and industry experts widely believe supply chain disruptions will continue to affect the U.S. economy as Russia's invasion against Ukraine sent oil prices surging and suggested an unpredictable course for markets in the short term.

"To run everything on the supply chain — unfortunately, so much of it relies on oil," Kona Haque, ED&F Man head of research, said on Yahoo Finance Live (video above). "It's the reason why every time you see oil prices go up by 50%, a U.S. recession typically follows. It's that impactful. It's that entrenched in the economy. And obviously the U.S. clearly is very, very energy dependent ... It will have a reverberating impact across the supply chain."

Volkswagen does not see chip shortage ending this year

Reuters - Last updated: Feb 06, 2022, 05:29 PM IST

Synopsis

Car makers around the world have been hit by a shortage of semiconductors caused by COVID-19 supply-chain disruptions as well as soaring semiconductor demand at consumer electronic companies.



The Volkswagen logo stands illuminated on an administrative building at the Volkswagen factory and company headquarters.

Volkswagen does not expect the global shortage of semiconductors to end this year although it should further ease slightly in the second half, a board member was quoted as saying by industry magazine Automobiliwoche.

"The volatile situation will affect us at least beyond the first half of this year,"

TOUS

70.00 EUR

COMPRAR

Popular in Auto

1. Pent-up demand for trucks at half a million, opportunity of...

Your guide to a disrupted world

Toyota Motor Corp [+ Add to myFT](#)

Toyota to shut down Japanese plants after supplier hit by cyber attack

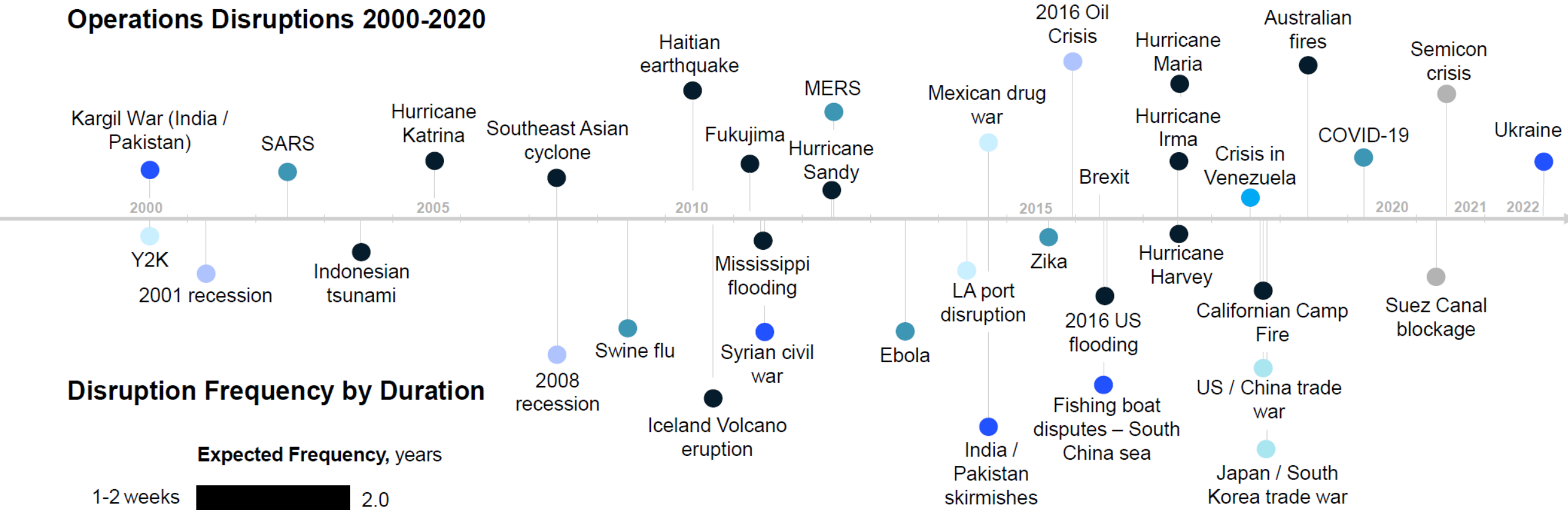
Move comes as governments step up warnings of hacking following Russia's invasion of Ukraine



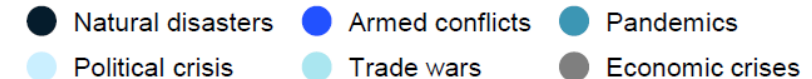
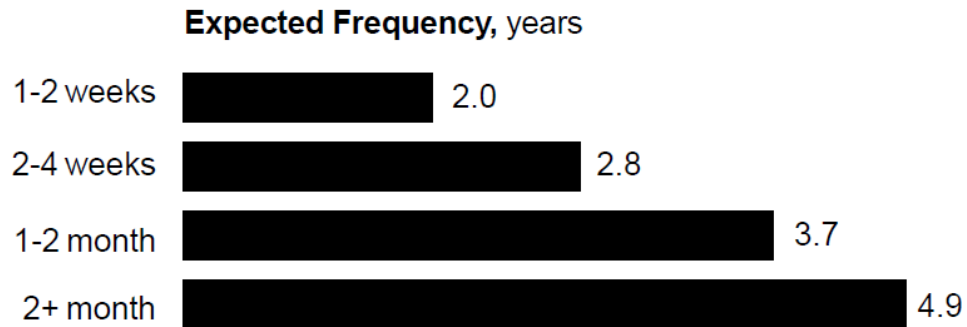
A Toyota factory in Japan. Japanese officials fear the country's leading companies are now targets for reprisals after the government backed tougher sanctions against Russia © Yoshikazu Tsuno/Gamma-Rapho/Getty

How did all of this start Shocks are getting more frequent and severe

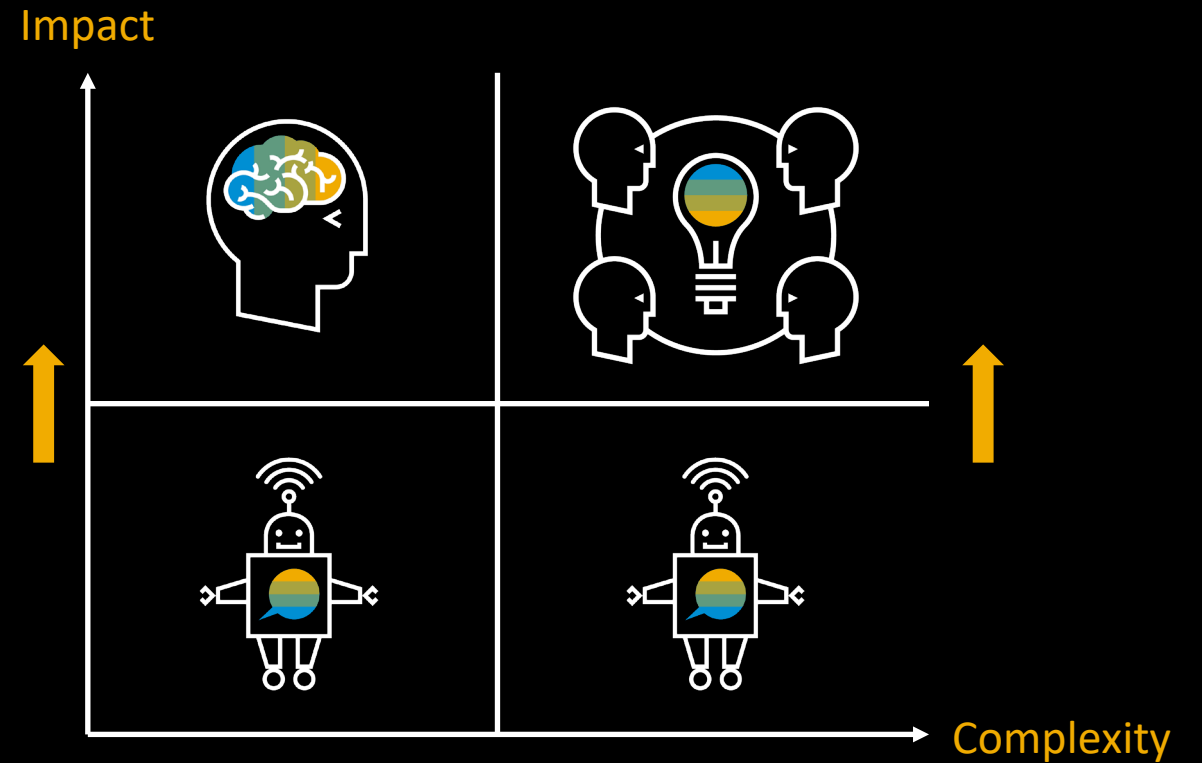
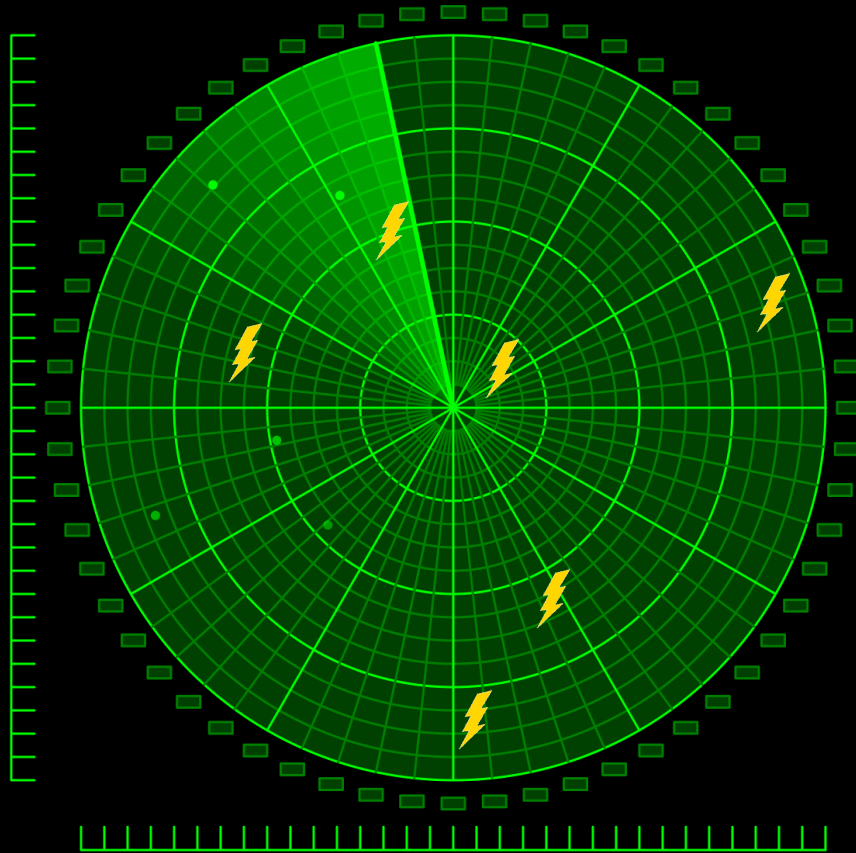
Operations Disruptions 2000-2020



Disruption Frequency by Duration



Supply Chain Resiliency starts with Planning





"A380 Cockpit" by Naddsy licensed under CC BY 2.0.

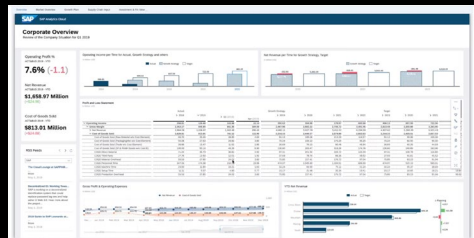
Integrated Business Planning



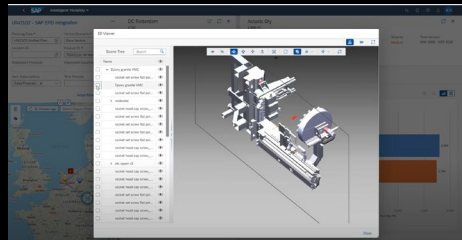
External Data



Sustainability Footprint



Finance



Design/PLM



Assets/MRO

SAP Planner's Workspace

Liquid Detergent, Germany - Production

Version/Scenario: Base version | Planning Filter: Marcin's Value Stream | Time Period: 7 Days | Alert Subscription? Potential Cut | Product? A Product Liq... | Location? DC1 | DC2 | 1 More

Alerts (5)

- Potential Material Shortage: 500 SU
- Potential Cut: 250 SU
- Potential Material Shortage: 230 SU
- Potential Material Shortage: 190 SU
- Potential Cut: 190 SU

Production Plan

Resource	Alert	Utilization	Today	Day +1	Day +2	Day +3	Day +4	Day +5	Day +6
AF-30		90%		A...	C Prod...	A Prod...			
AF-32		95%	C Prod...	A...		C Prod...	A Prod...		
AF-33		92%		C Prod...	A Prod...				
AF-34		98%	C Prod...	B Prod...		B Prod...			

Supply Network

Location	Material	Key Figures	Past Due	Today	Day +1	Day +2	Day +3	Day +4	Day +5	Day +6	Day +7
L21	A Product - Liquid detergent	Independent Requirements		700	200	300	400	400	500	600	
		Sales Order		456	470	280	450	480	400	380	400
		Dependent Requirement		153	170	100	200	200	400	250	300
		Incoming by Vendor		40	0	40	0	40	0	40	
		Supplier A		243	300	100	250	200	0	50	100
		Supplier B		20	0	40	0	40	0	40	
		Supplier C		0	0	0	0	0	0	0	
		Incoming Stock Transport Order (incl. Requisitions)		0	0	0	0	0	0	0	
		Planned Shipment Plant ABC		0	0	0	0	0	0	0	
		Planned Hot Tik Plant ABC		0	0	0	0	0	0	0	
		Planned Shipment Plant DEF		0	0	0	0	0	0	0	
		Planned Hot Tik Plant DEF		0	0	0	0	0	0	0	
		Total Prod Planned Order		500	600	600	600	900	800	800	1000
		Total Plan Prod BUOM		1150	1380	1380	1380	2070	1840	2070	2300
		Total Prod Confirmed Orders									
		Total Prod Confirmed Orders BUOM									
		Total Avail									
		Total Inventory		300	130	520	150	420	400	520	600

Simulation Impact

1. Change

Old Value: 0, New Value: 500

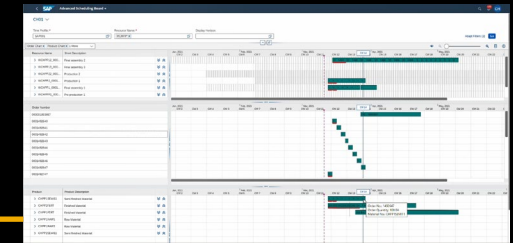
Affected Panel: Inventory, Stock Projected

Affected Resource: AF32, Affected Time Periods: Day +2

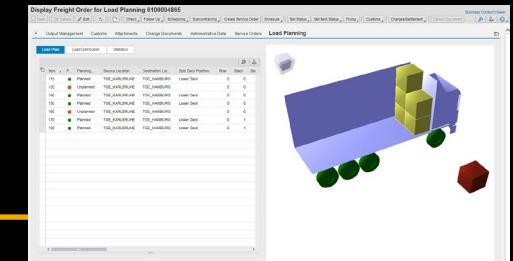
Impacted Values (1): Old Value: 0, New Value: 0

Log Type: Automatic impact change

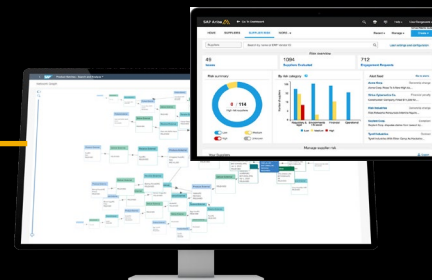
Panel: Inventory, Key Figure: Stock Projected



Manufacturing



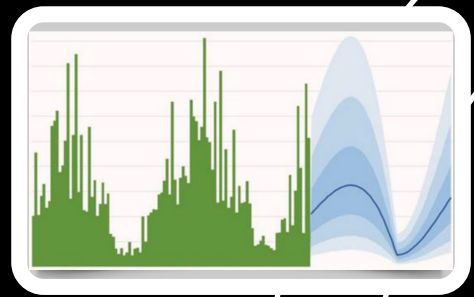
Transportation



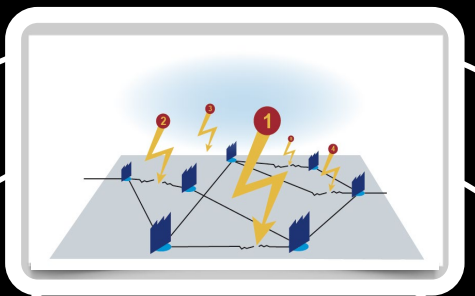
Business Network

Synchronized | Real-Time | AI-driven

Probability Based Planning



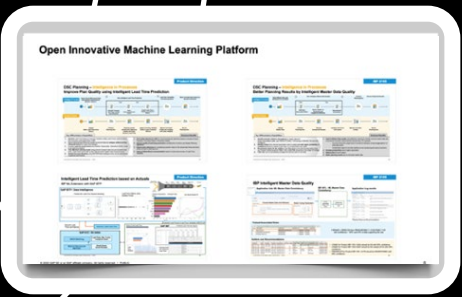
Productivity / AI



Supply Chain Risk



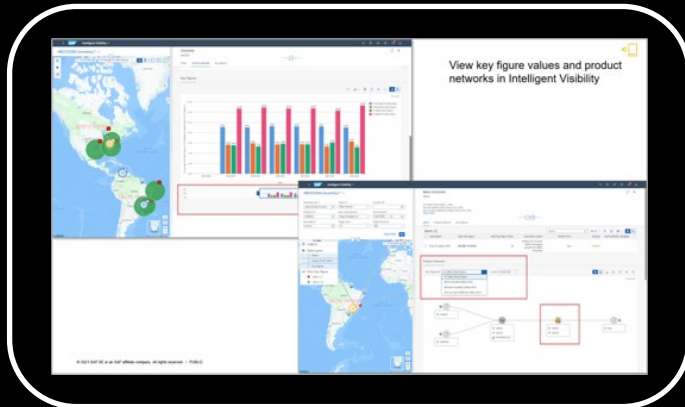
Extensibility



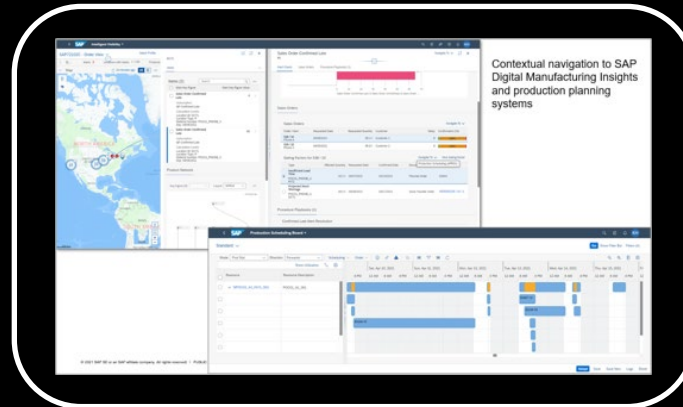
True Cloud scalability

Intelligent Visibility

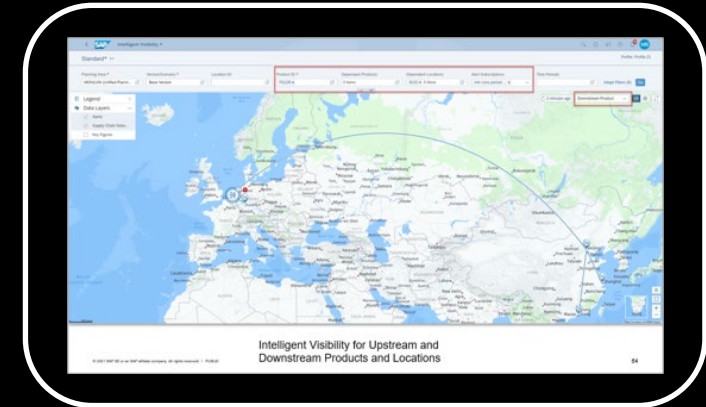
View Your Supply Chain End-to-End – Increase Transparency



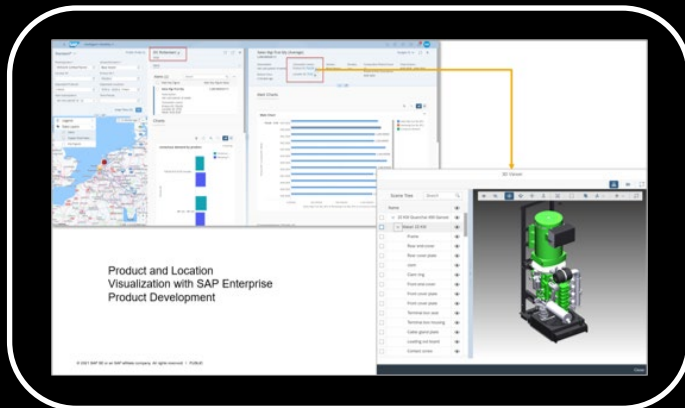
View key figure values and product networks in Intelligent Visibility



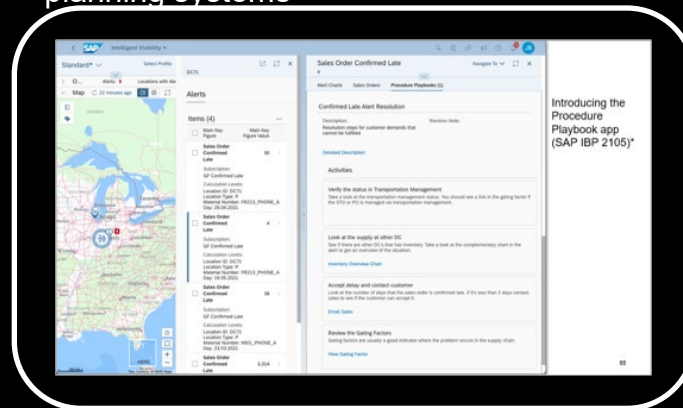
Contextual navigation to SAP Digital Manufacturing Insights and production planning systems



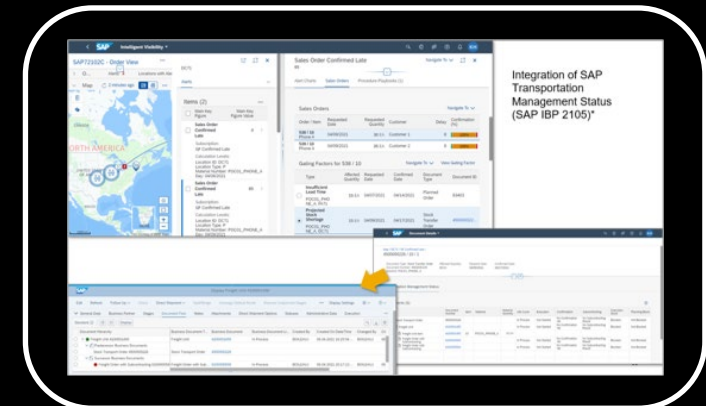
Intelligent Visibility for Upstream and Downstream Products and Locations



Product and Location Visualization with SAP Enterprise Product Development

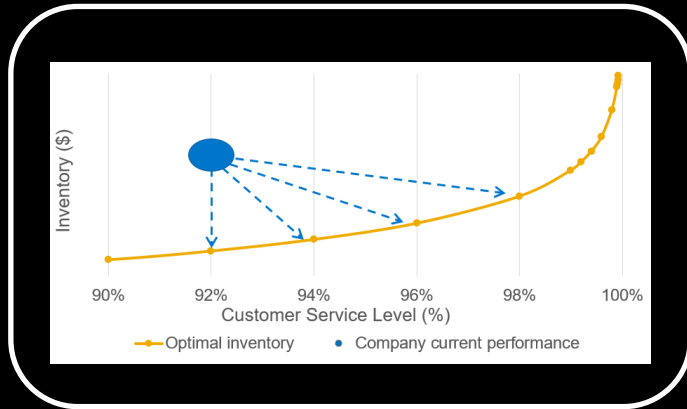


Introducing the Procedure Playbook app (planned)

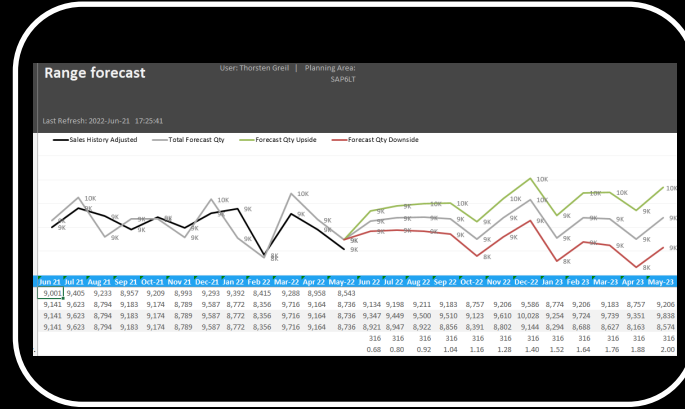


Integration of SAP Transportation Management Status (planned)

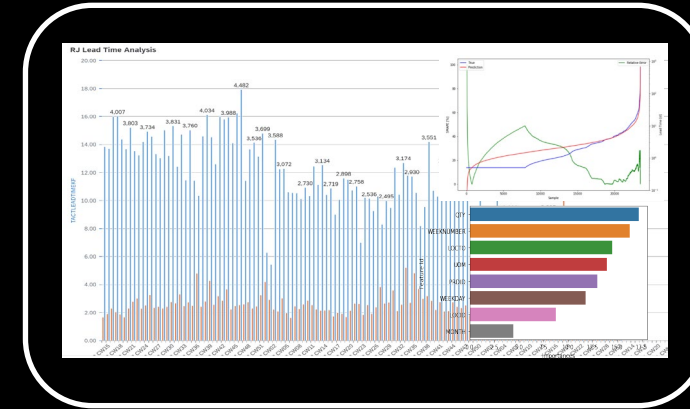
Probabilistic planning approaches available and planned in SAP IBP



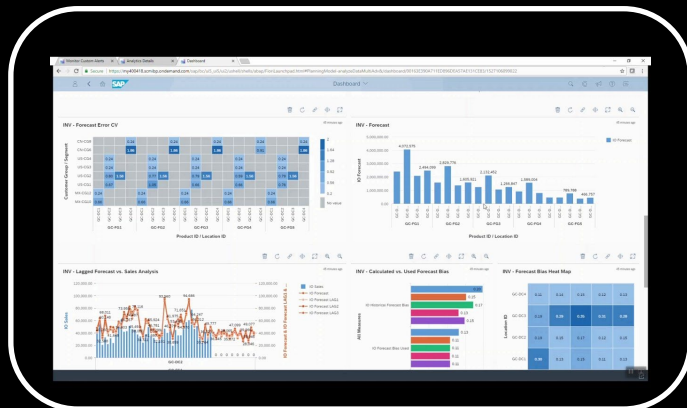
Inventory Optimization



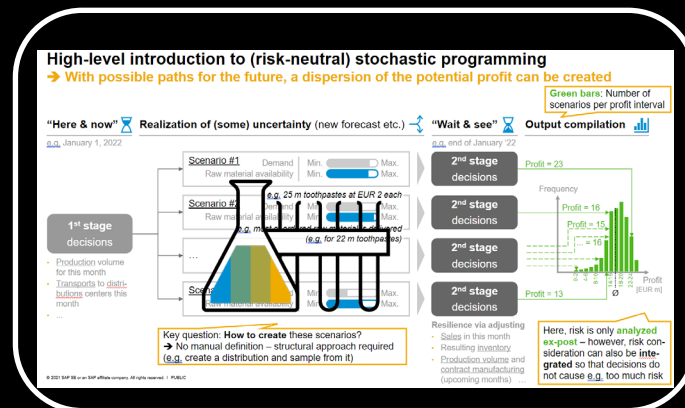
Range Forecasting



AI Leadtime predictions



Automated Scenarios



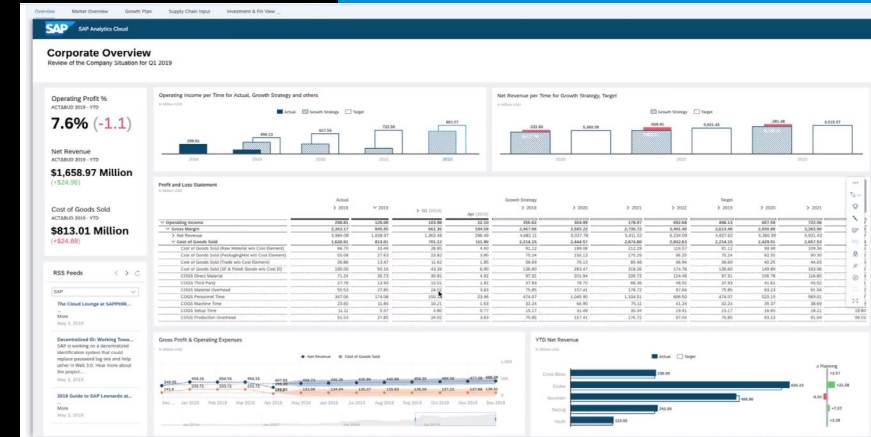
Research with Technical University Munich (TUM)



Supply Chain Risk

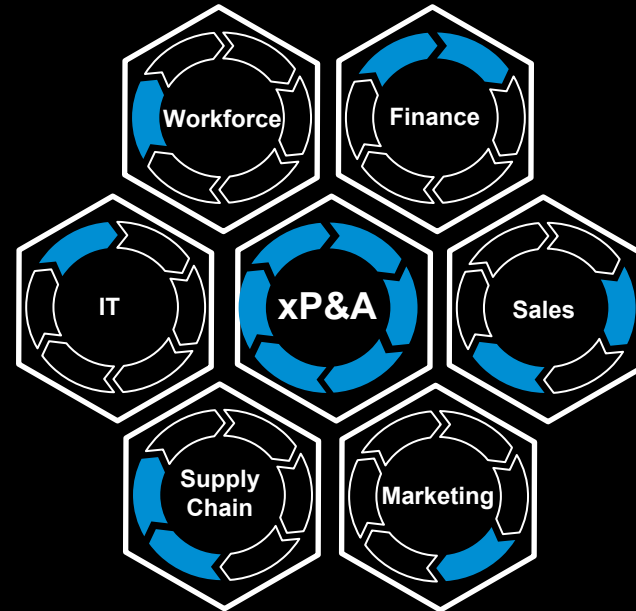
Integrated financial and supply chain planning Extended Planning & Analysis (xP&A)

Seamless planning processes linking finance, supply chain, sales, and marketing



Use Cases:

- Annual Business Planning
- Financial Planning
- Investment Planning
- Revenue Planning
- Cost Center Planning
- Workforce Planning
- Factory Cost Budget Planning
- Product Contribution Margin
- ...

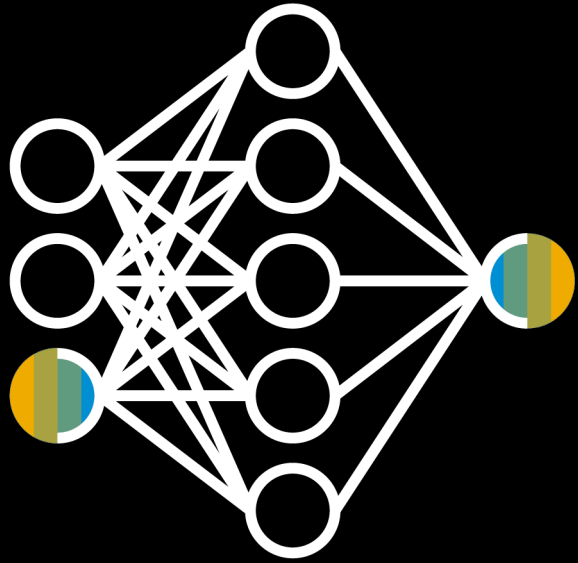


Product Direction

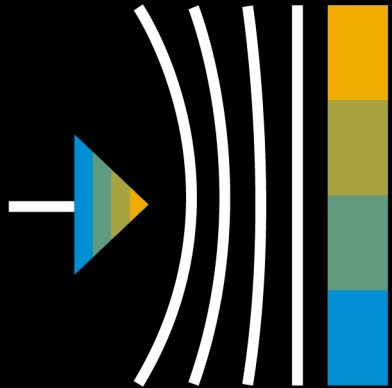
- Single User Experience with Embedded SAC Analytics
- Tight integration supporting planned activities and ad-hoc planning tasks
- Reporting without data replication
- Overarching workflow and scenario-based planning across planning LoBs

Provide actionable insights and decision support across planning siloes

Modern Supply Chain Planning



Risk Aware



Resilient

How Can End-to-End Supply Chain Planning **Generate Customer Value** Through Reliability and Efficiency?

Optimizing planning across **60 manufacturing sites** and **200 inventories**

Serving businesses in water-intensive sectors such as pulp and paper manufacturing, Kemira Oyj provides chemicals expertise to enhance its customers' product quality, processes, and resource efficiency. Seeking to improve supply chain reliability and efficiency, Kemira wanted to streamline its global planning to better support its team of 500 sales managers across all sales regions. It needed to build **end-to-end planning capabilities**, enable demand-supply planning across product lines, and eliminate manual processes.



Boosting Efficiency and Reliability with SAP® Integrated Business Planning for Supply Chain

Before: Challenges and Opportunities

- Serve customers better by aligning the sales need with supply and capacity
- Automate demand planning and better match it with accurate forecasts across 60 manufacturing sites and 200 inventories
- Eliminate manual processes for supply planning, enabling a faster response to changes in demand

Why SAP

- Proven cloud solution enabling end-to-end supply chain visibility and real-time supply chain management
- Reduced complexity, replacing multiple legacy systems with a simplified software landscape
- Key part of an overall digitalization strategy supported by multiple SAP® solutions

After: Value-Driven Results

- Improved supply chain performance with real-time planning based on monthly and weekly forecasts, helping the company be highly responsive to customer needs
- Better visibility with a single source of data and an end-to-end view of the supply chain, with detailed reporting on sales and operations
- Integrated planning for balancing demand and supply in profit-driven decision processes
- Unified and simplified planning practices, facilitating profitability, cash-flow, and business targets
- Enhanced customer service with record-high on-time delivery performance and customer ratings

Kemira

“SAP Integrated Business Planning for Supply Chain improves forecast accuracy, supports on-time delivery, and allows us to build **profit-optimized plans.**”

Simo Nuutinen, Head of Global Planning, Supply Chain, Kemira Oyj

600

Empowered users making data-driven decisions across the supply chain

One

Common platform unifying demand planning across 60 manufacturing sites and 200 inventories

Kemira Oyj
Helsinki, Finland
www.kemira.com

Industry
Chemicals

Products and Services
Provider of chemical products for customers in water-intensive industries

Employees
4,915

Revenue
€2.6 billion

Featured Solutions
SAP Integrated Business Planning for Supply Chain solution

THE BEST RUN 

Thank you.

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