

SAP User Groups: S/4HANA Webinar Series Kick-off: The Intelligent Enterprise for the Digital Economy

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Let's step back for a moment What's happening to our world?





World Population, Millions

Productivity has been declining for the last 3 Decades

Figure 18: G7 productivity growth has declined both structurally and as a result of the financial crisis

Annual growth in GDP per hour worked, average of last 5 years



"Productivity gains are the wellspring of higher living standards, and the well has been running pretty dry lately." Alan S. Blinder Wall Street Journal May 14, 2015

Source: RF analysis of OECD

Picture source: Resolution Foundation

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ILO Labour Productivity

International Labour Organisation: Average annual productivity growth

1991 - 2007

2010 - 2017



Note: Numbers have been rounded off to one decimal place.

Note: Numbers have been rounded off to one decimal place.

Source: https://www2.deloitte.com/insights/us/en/economy/behind-the-numbers/decoding-declining-stagnant-productivity-growth.html

250 Years of the Industrial Revolution

End of 18th century Water and Steam power to run mechanical production facilities

Beginning of 20th century Electrical power to enable work-sharing mass production

2

Early 1970s

3

Electronics and IT to automate production





The Digital Revolution

Exponential Advances in Science & Technology reach Maturity

Most are Data-driven and the Combinatorial effect changes the World as we know it

BIOTECH NEUROMORPHIC COMPUTING ARTIFICIAL DIGITAL ASSISTANTS MACHINE RPA **eAVs** INTELLIGENCE **LEARNING** NLP MOBILITY 3D PRINTING **CLOUD INTERNET OF THINGS** B2B MARKETPLACE SOCIAL NANO-TECHNOLOGY **BIG DATA** 5G CYBER SECURITY UX IN MEMORY COMPUTING ROBOTICS API & MICRO SERVICES BLOCKCHAIN **CRISPR-CAS9 GRAPHENE SPACEX** RENEWABLE ENERGY GRAVITATIONAL WAVES

Exponential Cost improvements

Change the Economics of IT, Business, Government, Society

CAR SENSOR



Hyper-connectivity

Integration fuels Intelligence about the world

Suppliers, Partners, Co-creators Consumers, Customers, Clients cohere around platforms in Citizens, Patients; converse, **Digital Business Networks** collaborate, co-create & "prosume" Platforms Blockchain 30 - 200 billion **Connected devices by 2020 Digital Business Networks** 0000 Facilities, Assets, Equip't, Employees, Contractors & Inventory, Digital Supply Chains, **Professionals** "Things"

3,5 – 5 billion Connected people on social

networks by 2020

Data is the oil of the digital economy – growing exponentially



Data Explosion

4,300% increase in annual data production by 2020¹



¹Forbes: "Big Data Overload: Why Most Companies Can't Deal With The Data Explosion", Bernard Marr, April 2016;

Every company becomes a software company





Of human tasks will be automated by 2025

97%

Image recognition accuracy today (better than human rate 95%)

Artificial Intelligence

50% of all digital transformation initiatives will incorporate Al¹

95.1 %

Speech recognition accuracy today (better than human rate 94.1%)



"We are in the middle of a dramatic and broad technological and economic shift in which software companies are poised to take over large swathes of the economy." 2011 Mark Andreessen. Co-author of Mosaic, co-founder of Netscape; co-founder VC firm Andreessen Horowitz

The World's Largest Companies are now Software and Data-based Companies

THE LARGEST COMPANIES BY MARKET CAP

The oil barons have been replaced by the whiz kids of Silicon Valley





"Software is Eating the World"

Marc Andreessen in the Wall Street Journal. August 2011.

"If you went to bed last night as an industrial company, you're going to wake up this morning as a software and analytics company."

SOURCE: Jeff Immelt, CEO of GE, Minds+Machines Summit 2014



Today's disruptors are **Insight-Driven** using IoT, Big Data, AI and Block Chain on Digital Platforms to Build Business Networks that connect to the world



Organizations that provide people with the insight they need to make better decisions, and enable them to act, will disrupt and deliver growth and innovation

Which of the following products has the most lines of codes

23.5 Million













61 Million

This is NOT just a faster, cheaper, better version of the Industrial era



Cyber-physical systems, BIG Data, In-memory Computing, AI & ML, NLP, AVs & Robotics, Crypto & Quantum to reimagine life and business **75% of S&P 500 incumbents will be gone by 2027.** That means managing your transition to a digitally driven business model isn't just critical to beating competitors; it's crucial to survival.

McKinsey&Company

What's your status?

Reimagine Solutions, Simplify Processes to Transform Work and Support New Business

(F) Where is your company Business processes Work Work More is your company Business models



SAP adapting to change

At SAP the Pace of change is accelerating



- Integration
- ✓ Standardization
- ✓ Globalization
- ✓ Trust

- ✓ 46 years of innovation across industries
- ✓ 404,000+ customers (with 3,500 in Africa)
- ✓ 77% of the world's transaction revenue touches an SAP system
- Always providing multiple ways of innovation adoption

SAP R/1 R/2 Mainframe	Client/Server	SAP EP www./mysap.com	SAP HANA	Suite on HANA	añíy??	SAP Leonardo
International (as a constraint) Part (a) Transmission (as a constraint) (b) (c)						
1972 Data Processing "	1992 Globalisation	2004 BPR Internet	2011 In-memory Computing	2013 ERP Upgraded	2015 Digital Core	2017 Digital Innovation

SAP invested > US \$35 billion in Cloud-based Innovation since 2010



SAP progress highlights since 2010:

- Tripled our customer base to > 404k
- #1 in Enterprise Applications with our Digital core (S/4 HANA)
- #1 in Analytics
- #1 Cloud company in the world by users with more than 150M
- Invented the In Memory platform with now over 10,000 HANA customers
- Doubled our revenue to €22.07B
- Grew our revenue in Cloud & Database by 100X
- Run the largest business network (\$1 trillion in transaction volume)
- Doubled our share price from €38 to €86*

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*€86.43 on Jan 1, 2017

To Change the face of Enterprise Software

Best-of-Breed On Premise Unique, costly integrations	BoB Workloads Shift to Cloud In-Memory Computing Mobile-first	Intelligent Enterprise Business Networks Exponential Technologies					
Long projects	Hybrid Landscapes						
Fragmented data	E2E Integration challenges						
Innovation Challenges							
2005 2006 2007 2008 2009 2010 2	11 2012 2013 2014 2015 2016 2017 20	18 2019 2020 2021 2022 2023					
ONE integrated SAP on premise	Best-in-Class LoB solutions in the cloud	ONE integrated SAP cloud experience					



The Intelligent Enterprise Agile, Productive, Innovative, Customer-centric

Future Direction of the Enterprise

The Digital Era is evolving into The Intelligence Era



Transformation Drivers in the Enterprise

IoT, Blockchain, A.I. / Machine Learning can reinvent Businesses

Process Automation

Full automation of business processes, from HR to payments processing, to workflow approvals for purchase orders and sales execution

Next-gen UX

User experience based on voice, vision and messaging will replicate how people interact in real life and increase business productivity



Intelligent Enterprise; Changes WHAT we do

Elevate employees to focus on higher-value tasks



1960s - 1980s

Exponential Capabilities deliver new & better Outcomes for Intelligent Enterprises

Capabilities



Visibility

the ability to collect and connect data that was previously siloed and to recognize unseen patterns



Focus

the ability to simulate the impact of potential options and direct scarce resources to the areas of maximum impact



Agility

ability to respond faster to changes in marketplace or business & to pivot business processes toward the right customer outcomes





Do more with less & empower employees

through process automation; freeing up people to do more meaningful work



Deliver best-in-class Customer Experience (CX)

by anticipating and proactively responding to end-customer needs



Invent new Business Models and Revenue Streams

by monetizing data-driven capabilities and applying core competencies in new ways

SAP Strategy – Deliver the Intelligent Enterprise



SAP Strategy – Deliver the Intelligent Enterprise



Intelligent Suite: Deliver intelligence across value chains

Intelligent applications for every line of business



SAP S/4HANA: Enterprise Management

Complete



EXAMPLE: New Generation Finance Business Processes

New in S/4HANA vs. traditional ERP



GOAL: Free-up time for business model innovation

SAP S/4 HANA NextGen ERP as the Onramp to the Digital Economy


Differentiated Digital Core

The Foundation for Next Generation Value Levers



Smart Business – real-time embedded analytics architecture

Foundation for new class of applications



Atomic

Instantaneous

Predefined

Redefine Real-time with a Digital Boardroom





Easy to set up agenda



Direct access to single source of truth



Simulation capability (what-if analysis)

The Digital Core: Insight to Action

Exception-based Handling to Domesticate the Digital Dragon



The Digital Core: Insight to Action

Exception-based Handling to Domesticate the Digital Dragon





SAP CoPilot

The Digital Assistant for the Enterprise



Business context awareness

Conversational (multi-modal) UI

Continuity across devices

Functional extensibility

https://video.sap.com/media/t/1_q1tt93fw



SAP S/4HANA Examples with "out-of-the-box" integration



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*(partially) Compatibility Scope

SAP Strategy – Deliver the Intelligent Enterprise



Digital Platform: Unlock data-driven intelligence and innovation



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

SAP Data Hub provides data orchestration and metadata management across heterogeneous data sources Platform for **extending the business processes** of the Intelligent Suite and enabling new innovations Delivering deep data and process integrations through **APIs and microservices**

ecosystem to build new innovations leveraging APIs and business services

SAP Strategy – Deliver the Intelligent Enterprise



SAP HANA: The only all-in-one, in-memory-first data platform







Real-time analytics on live transactions without data duplication



Built-in advanced analytics and multimodel processing



In-memory-first dynamic data storage management SAP HANA

The business data platform for the intelligent enterprise Virtually or physical connect to all data from any source



Enterprise-ready security and reliability 24/7

Benefits

- High performance and reliable operations for traditional and new applications
- Simplified application architectures and IT landscapes with minimal data movements
- Faster time to value by designing and building virtually for immediate business results
- Lower costs with effective management of large data sets

SAP HANA Data Management Suite

Secure, governed, enterprise-class applications and analytics from a trusted, unified view



Intelligent Engagements

- Modern UI
- Machine Learning / PA
- IoT / Connected Devices
- Advanced analytics (text, spatial, graph, streaming)

Data Lakes

- Unstructured / Semi-structured
- NoSQL | Schema on Read
- Logs, Clickstreams, Sensor Readings
- Petabyte-scale

SAP Strategy – Deliver the Intelligent Enterprise



SAP Cloud Platform

Key Use Cases



Quickly add new functionality to your existing cloud and on-prem apps to optimize your existing investments



Deliver delightful user experiences across various digital touchpoints enabling innovation, without disrupting core business processes





Differentiating Digital Apps

Rapidly build and run new cloud apps, business services and APIs to solve new problems, engage new customers, and drive new revenue



Connect your cloud and on-prem apps to eliminate data silos and make digital access simple, secure, and scalable



SAP Strategy – Deliver the Intelligent Enterprise



Intelligent Technologies: SAP Leonardo everywhere



Industry Innovation Kits Industry-led SAP Design Thinking Methodology Solution Business Rapid Integration Case Prototyping Blueprint Development Discrete Manufacturing Discrete Manufacturing Logistics and Spare Parts Service and Assets Chemicals Chemicals Utilities Spare Parts Service and Assets Service and Assets **Consumer Products** Travel and Transport Retail Assets and Logistics Assets and Logistics Logistics

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

A toolbox of intelligent technologies

(IoT, AI/ML, Blockchain and Analytics), microservices, and data management tools available over the 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



SAP Leonardo: Integrated, Embedded, Pervasive Exponential Tech'

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SAP Cash Application

Next-generation intelligent invoice matching powered by machine learning



SAP Cash Application intelligently learns matching criteria from your history and automatically clears payments









Short video here: https://www.youtube.com/watch?v=SB-9bMzCQ1E

Customer Benchmark Samples

ALPIQ

Company	Country	Proposal Rate	Accuracy
Alpiq AG	Switzerland	87.24%	96.99%
Alpiq Generation (CZ) sro	Czech Rep	98.76%	98.75%
Alpiq Energy SE	Czech Rep	91.56%	100.00%
Alpiq Energie France SAS	France	98.14%	97.33%
ALPIQ Energy SE Branch PL	Poland	91.82%	96.04%
Alpiq Rom Industries S.R.L	Romania	69.30%	95.61%

Proposal Rate

Percentage of bank statement line items where a proposal meeting the configured proposal threshold was returned by the service

Accuracy (Hit Rate)

Percentage of bank statement line items sent to the service that were correctly predicted



From ≈ 70% Matching with RPA to > 90% with SAP ML

Seven Core Technology Pillars for the Intelligent Enterprise



Ensure that SAP solutions integrate with little or no effort to other SAP and third-party solutions





TOPCON Making Intelligent Enterprise REAL! One integrated and intelligent Lead-to-Cash process

Why TopCon Positioning Systems?

Big data, maintenance, utilization

Founded in 1932

Catering to the infrastructure and agriculture sector providing state of art technology

Innovative products aimed at solving the productivity issues to support the world's human requirements for food and housing

Global company with Asia, Europe and America presence



\$60Th Needs to be spent to keep up with population growth & infrastructure decay

60% Gap between needs and current capacity



Evolution of TopCon's business models



From land surveying to operating projects



Selling aerial images and data...

Analyzing the images and data for customer advice on construction, agricultural, maintenance projects

Directing the use of heavy equipment and performing remote troubleshooting

Evolution of TopCon's business models



From land surveying to operating projects



Evolution comes at a price...

Overcome obstacles and to innovate

ТОРСОП

\bigcirc

High Cost & Complexity

- Heterogeneous apps
- 9 subsidiaries on different ERP systems
- Higher cost/latency due to limited visibility
- Lack of repeatability between entities: costs



Global Expansion & New Business Models

- Low collaboration with subsidiaries
 reduced monetization of the Digital Economy
- Subsidiaries need to scale quickly at lower cost

Outperform Competition

- Leverage corporate services across subsidiaries to scale
- Serve customers better via realtime visibility across the entire subsidiary ecosystem

TopCon: legacy landscape Simplify with SAP!





Two-tier solution at TopCon



Enable subsidiaries via new tool



TopCon: HQ-Subsidiary landscape with S/4HANA



Efficient procurement, inventory management, sales

Subsidiary

- Customer order at the local sales office creates follow on documents (Purchase order, sales order, Order Confirmation)
- API to send the PO information for SO creation at HQ

Headquarters

- Creates Sales Order with Sold-to as Sales Office and Ship-to as Customer
- Confirms the delivery date to subsidiary Sales Office

Subsidiary

 Sales Office provides Order Confirmation to customer with confirmed dates

Headquarters

- Post Goods Issue to customer delivery
- ASN to Subsidiary
- Bill to Subsidiary

Subsidiary

- Posts Statistical GR for HQ Drop Shipment
- Customer Billing

Pre-Requisite:

- Subsidiary runs S/4H Cloud
- HQ runs on OP or ECC
- Same Customer Master Data at HQ and Sub



TopCon: S/4HANA impact

Enable further business model innovation



Lower TCO & Ease of Use

- SAP skills/knowledge across 2tier landscape
- Capitalizing on latest features and continuous innovations to maintain market leadership



Instant Value

- Accelerated go-live for rapid global deployments
- Topcon subsidiaries activated in Two-Tier ERP rollout in Phase 1 (Summer 2018)
- Eliminates duplicate entry (PO, Billing)



Improved Productivity

- Streamlined & efficient procurement and sales
- Consistent business practices across subsidiaries with reduced risk and complexity
- Integrated material and inventory management
- Data visibility across the entire company

TopCon: what's next?



One integrated and intelligent Lead-to-Cash process





SAP's Continued Industry Leadership

EXAMPLE: Strategic Priorities for Industrial Machinery & Components customers

Customer centricity



Rethinking the whole business from the end customer's perspective. Serving the "Segment of One"



Configurability

- Adaptability
- Personalization

Digital smart products



Intelligent

Self-aware

Digital supply chain & smart factory



Flexible reaction to changes in demand, supply and resources

Servitization & new business models



Aftersales Service
Value add services
Usage based charging

Strategic priorities have Implications along the entire value chain









R&D	Sales & Marketing	Supply Chain	Manufacturing	Aftermarket Service	Procurement	Finance	Human Resources
Co-innovate with customers Deliver product innovations resulting from actual equipment use and incident reports Collect structured requirement based on interactions with customers and design partners						Use simulation and analysis to evaluate financial implications of strategic business choices Manage the customer portfolio strategically	Maintain a pipeline of top talent Attract and secure top talent Work with customers through flexible contracting Enable social collaboration among teams
Modularize product concepts and well- structured product families Use platform models across product families Select engineer-to-order capabilities during the sales configuration process	Personalize marketing and sales Segment customers with sophistication Configure products and manage variants such as conling				Enable economies of scale and flexible call orders with strategic and agile global supplier-network management Onboard alternative suppliers with flexibility	 Analyze profitability instantly across multiple dimensions such as product groups, customers, projects, profit centers, and plants 	 Identify, forecast, and address skill gaps Onboard and train employees quickly and seamlessly
Adopt a systems engineering approach that includes mechanical, software, and electronic capabilities Embed the technology foundation for equipment networks Manage digital IP effectively	Enable collaborative solution and value selling Generate leads through predictive product replacement and precise segmentation Sell Software		Requ	lired	Execute procurement strategies for 3D- printed service parts Bundle third-party service with products	 Incluide payment models for digital services in product calculations and financial reporting Manage and help ensure digital rights compliance 	 Train and certify workforce on new digital technologies Work with universities and external entities in a flexible manner Engage in knowledge sharing and community building
Integrate manufacturing engineering with electronic and manual management of bills of materials Visualize manufacturing processes digitally based on harmonized product data			Business C	apabilities		 Optimize working capital Manage increased financial risks associated with highly fieable supply chains and manufacturing operations 	Empower employees to make decisions in real-time Manage external contractors with greater flexibility Enable agile work teams
Calculate actual equipment use Offer digital services with data platforms Support equipment information sharing along the value chain	Support omnichannel solution setting Sett data and digital services Manage contract value Charge based on performance Enable customer settlservice					 Finance and manage the risk of assets that are operated for customers through a product-as-a-service contract. Allow financial controlling of performance- based service contracts 	 Procure and manage contingent labor and services for an optimized service delivery across regions
EXAMPLE:

Strategic priorities need SAP's Solutions for the Intelligent Enterprise

	R&D	Sales & Marketing	Supply Chain	Manufacturing	Aftermarket Service	Procurement	Finance	Human Resources		
Customer centricity	Co-innovate with customers Deliver product innovations resulting from actual equipment use and incident reports Collect structured requirement based on interactions with customers and design partners						 Use simulation and analysis to evaluate financial implications of strategic business choices Manage the customer portfolio strategically 	Maintain a pipeline of top talent Atract and secure top talent Work with customers through flexible contracting Enable social collaboration among teams		
Serving the "Segment of One"	Modularize product concepts and well- structured product families Use platform models across product families Select engineer-to-order capabilities during the sales configuration process	 Personalize marketing and sales Segment customers with sophistication Configure products and manage variants such as costing 				 Enable economies of scale and flexible call orders with strategic and agile global supplier-network management Onboard atternative suppliers with flexibility 	 Analyze profitability instantly across multiple dimensions such as product groups, customers, projects, profit centers, and plants 	 Identity, forecast, and address skill gaps Onboard and train employees quickly and seamlessly 		
Digital smart products	Adopt a systema engineering approach that includes mechanical, software, and electronic capabilities Embed the technology foundation for equipment networks Manage digital IP effectively	Enable collaborative solution and value setting Generate leads through predictive product replacement and precise segmentation Sell Software		Required		Execute produrement strategies for 3D- printed service parts Bundle third-party service with products	 Include payment models for digital services in product calculations and financial reporting Manage and help ensure digital rights compliance 	Train and certify workforce on new digital technologies Work with universities and external entities in a flexible manner Engage in knowledge sharing and community building		
Digital supply chain & Smart factory	 Integrate manufacturing engineering with electronic and manual management of bills of materials Vasualize manufacturing processes digitally based on harmonized product data 	 Forecast sales procisely and reliably Align supply chain and sales planning Route customer orders directly into the factory as production orders 		Business C	apabilities	 Allow contractual enablement of global supply chains with multi-tier suppliers management. Automate and simplify the integration of material suppliers. 	 Optimize working capital Manage increased financial risks associated with highly flexible supply chains and manufacturing operations 	Empower employees to make decisions in real-time Manage external contractors with greater flexibility Enable agile work teams		
Servitization & New business models	Calculate actual equipment use Offer digital services with data platforms Support equipment information sharing along the value chain						 Finance and manage the risk of assets that are operated for customers through a product-as-a-service contract Allow financial controlling of performance- based service contracts 	 Procure and manage contingent labor and services for an optimized service delivery across regions 		
Typical business benefits					ů.					
	SAP S/4 HANA Enterprise Management									
Intelligent Suite				S/4 Engines						
	SAP Hybris 📢 SAP Ariba 州		SAP Ariba /	SAP Fieldglass 세						
Intelligent Technologies	🔆 Internet of Things 💮 Machine Learn		Machine Learning	Analytics		Block Chain		Big Data		
01011 11010 10 0101 01101 Digital Platform	SAP Cloud Platform SAP Data Management:									

They pursue five key initiatives which require new business	Intellige 1. They provide the o can innovate their	nt Industrial Machin digitally enabled machinery r business - driving topline	ery & Components and equipment so that othe revenue	enterprises play a key role r companies 2	 ble in the digitalization of businesses across all industries: 2. They are spearheading innovative processes themselves leveraging digital capabilities of the equipment they use - achieving bottom line cost savings 					
capabilities along the value chain	R&D	Sales & Marketing	Supply Chain	Manufacturing	Aftermarket Service	Procurement	Finance	Human Resources		
Customer centricity	Co-innovate with customers Deliver product innovations resulting from actual equipment use and incident reports Collect structured requirement based on interactions with customers and design partners	Contextualize customer engagement Engage omnichannel solution selling Organize and empower sales teams	 Foster demand-driven, collaborative supply networks Enable on-time delivery and advanced availability-to-promise capabilities 	Adjust production orders with greater flexibility based on customer priorities Foster an agile and responsive manufacturing network Track and trace individual products	Organize and empower teams Flow customer information across channels Personalize end-to-end service parts processes Access a service knowledge database	 Find and contract talent with specific noncore skills Drive new strategies outside the current business scope Derive insights to enhance situational awareness and speed-to-decision 	 Use simulation and analysis to evaluate financial implications of strategic business choices Manage the customer portfolio strategically 	Maintain a pipeline of top talent Attract and secure top talent Work with customers through flexible contracting Enable social collaboration among teams		
Serving the "Segment of One"	 Modularize product concepts and well- structured product families Use platform models across product families Select engineer-to-order capabilities during the sales configuration process 	 Personalize marketing and sales Segment customers with sophistication Configure products and manage variants such as costing 	 Plan sales and operations with flexibility Support responsive material requirement planning Promote efficient and flexible internal and external logistics and supplier collaboration 	 Produce for a lot size of one with high asset utilization and optimal set-up times Integrate seamlessly sales orders with specific parameters with the shop floor Give electronic work instructions 	Offer tailor-made services Deliver an equipment-specific service portfolio Gain full transparency into equipment lifecycle information Provide an easy buying of services and parts	 Enable economies of scale and flexible call orders with strategic and agile global supplier-network management Onboard alternative suppliers with flexibility 	 Analyze profitability instantly across multiple dimensions such as product groups, customers, projects, profit centers, and plants 	 Identify, forecast, and address skill gaps Onboard and train employees quickly and seamlessly 		
Digital smart products	Adopt a systems engineering approach that includes mechanical, software, and electronic capabilities Embed the technology foundation for equipment networks Manage digital IP effectively	Enable collaborative solution and value selling Generate leads through predictive product replacement and precise segmentation Sell Software	Track digital components Actualize efficient replenishment strategies Enable 3D printing for spare parts Use digital twin throughout entire supply chain	 Install and manage in-product software Support advanced testing and connectivity management 	 Provide services for digital smart products Enable a feedback loop in internal business processes Connect digital products in the field with an equipment network 	Execute procurement strategies for 3D- printed service parts Bundle third-party service with products Identify and contract suppliers closely connected with Product Design and Engineering	 Include payment models for digital services in product calculations and financial reporting Manage and help ensure digital rights compliance 	 Train and certify workforce on new digital technologies Work with universities and external entities in a flexible manner Engage in knowledge sharing and community building 		
Digital supply chain & smart factory	 Integrate manufacturing engineering with electronic and manual management of bills of materials Visualize manufacturing processes digitally based on harmonized product data 	 Forecast sales precisely and reliably Align supply chain and sales planning Route customer orders directly into the factory as production orders 	Achieve real-time end-to-end visibility into supply chain management Plan demand and supply flexibly Integrate material management –from shop floor to warehouse	 Integrate vertically up to the customer Support machine-to-machine integration Innovate plug-and-produce processes Benefit from a digital twin of the manufacturing facility 	 Collaborate on equipment data through a network Handover as-built equipment information seamlessly to aftermarket services Produce service parts by 3Dprinting 	 Allow contractual enablement of global supply chains with multi-tier suppliers management Automate and simplify the integration of material suppliers 	 Optimize working capital Manage increased financial risks associated with highly flexible supply chains and manufacturing operations 	Empower employees to make decisions in real-time Manage external contractors with greater flexibility Enable agile work teams		
Servitization & new business models	 Calculate actual equipment use Offer digital services with data platforms Support equipment information sharing along the value chain 	Support omnichannel solution selling Sell data and digital services Manage contract value Charge based on performance Enable customer self-service	 Collaborate with customers and suppliers Improve demand sensing and automate replenishment Optimize service parts planning and logistics performance 	 Deliver on the highest quality requirements Avail manufacturing parameters to service processes Distribute product-use information for production planning 	Deliver performance-based services and products as a service Monitor remote conditions and performance of installed base Provide predictive services Innovate digital value-add services	 Augment the workforce by integrating contingent workers efficiently Deliver the highest quality in the shortest time through service-parts collaboration 	 Finance and manage the risk of assets that are operated for customers through a product-as-a-service contract Allow financial controlling of performance- based service contracts 	 Procure and manage contingent labor and services for an optimized service delivery across regions 		
l ypical business benefits*	New products revenue: + 10-20% R&D cost: - 20-30% Revenue targets met by production: +15-20%	On-time delivery: + 10-20% Inventory levels: - 25-30% Customer satisfaction: + 10-20%	Cost due to stock-outs: - 20-25% Days in inventory: - 10-12% Total logistics cost: - 10-12%	Total manufacturing cost: - 10% Manufacturing cycle time: - 10% Scrap value: - 25%	Revenue leakage: - 7-9% Service delivery cost: - 4-5% Cost of noncompliance: - 4-5%	Procurement function cost: - 15-20% Worker acquisition time: - 30-40% Days payable outstanding: - 2-5 days	Days to close annual books: - 40-50 Budgeting & forecasting cost: - 25-50% Audit cost: - 20-40%	Lower time and attendance function cost HR full-time equivalents: -44%		
I Core	Product development and project control Product engineering Embedded software management Classic variant configuration	Order and contract management Sales order fulfillment cockpit User experience and interface solutions Settlement management	Basic inventory, warehousing, and transportation Production planning Real-time inventory management Multilevel goods receipt	MRP live Production operations Quality management Manufacturing insights	Service master data and agreement management Service operations and processes Service parts management	Sourcing and contract management Operational and service procurement Invoice and payables management Suppler management Procurement analytics	Core accounting Cost management and profitability analysis Basic financial operations	Time recording		
	Enterprise portfolio and project management with embedded commercial project management Product lifecycle management Advanced variant configuration	Sales planning and performance management Billing and revenue innovation management	 Extended production scheduling and delivery planning Advanced inventory, warehousing, and transportation Advanced order promising (AATP) 	Complex manufacturing Demand driven MRP Extended production scheduling and delivery planning		Extended procurement	Financial planning and analysis Accounting and financial close Treasury management Commodity management Governance, risk, and compliance			
Intelligent Suite	Engineering control center Visual enterprise Innovation management Cloud for product stewardship Digital operations for R&D (Production engineering)	Price and margin management Heavy equipment management Social collaboration SAP C/4HANA Sales Configure, price and Marketing quote Commerce Revenue	IBP - Sales, inventory and operations planning IBP - Demand sensing and planning IBP - Response and supply orchestration Supplier network collaboration Extended warehouse management Transportation management	Responsive manufacturing (ME, MII, QIM, VE) Production operations (MII, QIM) Digital operations for manufacturing	SAP C/4HANA • Service • Commerce • Revenue	SAP Ariba	Governance, risk, and compliance Financial services network Digital payments add-on SAP Ariba SAP Concur	SAP SuccessFactors Core human resources and payroll Talent management Time and attendance management Human capital analytics SAP Fieldglass SAP Concur		
	Product lifecycle costing Intelligent product design	Brand impact	Global track and trace Vehicle insights	Plant connectivity Distributed manufacturing Digital manufacturing insights (incl. Predictive Quality)	Asset intelligence network Predictive maintenance and service Service ticket intelligence	Contract consumption Supply base optimization	Digital boardroom Accounts payable Cash application	Resume matching Job matching Job standardization		
Technologies	internet of Things	Machin	e Learning	Analytics	Nata Intelligence	Bloc	kchain	🗟 Big Data		
01011 11010 SAP	SAP Cloud Platform: API Business Hub - Market Place - Portal - API Management - Collaboration Services - Mobile Services - Big Data Services - Security Services - Analytics Services - Integration Services									
Digital Platform SAP	Oliol Digital Platform SAP Data Management: SAP HANA - SAP Data Hub - Meta Data & Lifecycle Management - SAP Vora - Orchestration & Governance - Smart Data Integration - 3rd Party Spark / Hadoop - Streaming Analytics - Data Lifecycle Management									

Digital Core: Core solution capabilities delivered as part of SAP S/4HANA Enterprise Management 📃 Digital Core: Solution capabilities that are part of SAP S/4HANA Enterprise Management, but added or purchased as needed



In Summary...

Unstoppable, Inescapable, Unplannable Disruption



The Digital Revolution disrupts <u>all</u> of our assumptions, wisdoms, practices



SAP embodies:



SAP – here to help YOUR COMPANY become an Intelligent Enterprise



Let's shape the Future together

Trying to predict the future is like trying to drive down a country road at night with no lights while looking out the back window. The best way to predict the future is to create

Peter Drucker

Thank you!

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