Transportation in the Digital World – Meeting the Demand
Strategies to Thrive in an Age of Increasing Expectations
Message from Kevin

Dear Customers and Partners,

Eight billion people. That is the global population projected by 2030.1

The middle-class population is expected to reach almost 5 billion2 with 85% of this growth coming from Asia and wield €56 trillion in spending power,3 which translates into a much larger future consumer base that will be traveling and demanding goods. This macro trend alone will strain transportation infrastructure resources and processes, but when coupled with higher expectations regarding service options and performance created by the digital age, the future looks more challenging and complex than ever.

Anticipating and meeting these challenges cannot be accomplished simply by building more infrastructure, expanding the fleet, or hiring more employees. It requires reevaluating today’s business and putting strategies in place that enable transportation to scale, while at the same time being more reliable, responsive, cost-effective, and customer-centric. To meet the demand, we have to recognize the importance of being a part of the digital world and incorporating digital strategies.

Transportation is already well-versed in digital technologies – monitoring equipment health, recording delivery events 24x7, and tagging equipment. Yet, there is still more to do. Just as Uber changed the game in the taxi industry by using sensors, smart-phones, and real-time network computing, there are opportunities for the transportation industry to focus on strategic priorities in the areas of transportation assets, the workforce, operations, and the network.

How are transportation companies moving forward and avoiding the trap of merely replicating old ways of doing business on new technology? How does transportation address business process needs, not only within the operation but also externally with global digital transportation and logistics networks? The goal is to achieve a balance between preparing, investing, and thriving in the digital world, while ensuring the mission of cost-effective transportation is maximized. Simply put, the transportation company of the industrial age needs to become the architect of global trade in the digital age:

• Maximize the performance and value of investments through workforce engagement
• Extend value creation through adoption of next-generation systems with asset management and your partner network
• Use all of the above to innovate for customer specific scenarios and enhanced customer experience

With nearly 30 years in the transportation and logistics industry on the business and the IT sides, I have heard many describe their companies as a railroad or as a warehouse logistics business – not an IT business. While this is true, it is also clear that IT in the industry has never been more relevant than it is today. When transportation systems work together, digitalization is the enabler to meet the transportation demands of the future.

This document offers our perspective as to where the industry will go and how SAP contributes to the evolution of transportation. Thank you for your interest, and I look forward to our journey together.

Kevin Schock
Global Head of Cargo Transportation and Logistics
Travel and Transportation
SAP SE
Table of Contents

4 Digital Transportation
5 The Future: Priorities for Transportation
6 Digital Road Map
7 Reimagine Your Investments
8 Reimagine Improved Business Processes
9 Reimagine Business Models
10 Technology Platform
11 Digital Transformation Framework
12 SAP Digital Business Services Portfolio
13 Transportation – SAP Portfolio with SAP S/4 HANA and SAP Leonardo
14 How Does It All Come Together? – Example: Port of Hamburg
15 From Your Current State to Digital
16 Transforming to the Next Level
17 SAP Digital Business Services
18 Comprehensive SAP Ecosystem
19 Why SAP?
20 SAP Is Committed to Innovation
21 Additional Resources
Digital Transportation – Big Picture

Challenges and Opportunities

THE DIGITAL WORLD – THE FUTURE IS NOW

In the transportation industry, population growth and today’s digital age are already causing demand to increase. “Demand” in this case goes beyond volume to include market pressures and a wide variety of competitive, economic, and policy issues. Resource constraints, regulations, evolving competition, higher customer expectations, and economic, as well as climate-related volatility, are the “new norms.” To meet this demand, digitalization of four fundamental elements – assets, talent, operations, and the network – is enabling transportation companies to rethink their business models and focus on how to drive revenue growth while managing operational costs.

NAVIGATING THE DIGITAL WORLD

To succeed, the industry will need to continue to reevaluate what has worked in the past by putting in place a conscious digital vision with clearly articulated strategies. In particular, new business models such as defining service product catalogs and providing comprehensive solution portfolios are value drivers using today’s technology. To deliver, the industry will not only need to improve existing business processes, but will also have to fund and prioritize investments for the right technology platform that can deliver on the vision.

“Digital” is an overused word. But it is not hype – there are proof points for the transportation industry. We are seeing the benefits of integrating processes so that data about resources in the network can be better orchestrated to improve fluidity that potentially doubles operational capacity without traditional capital expenditure outlays. Using sensor data, advanced processing power, and analytics, up to a 10% reduction in maintenance costs is realistic while at the same time improving asset availability. As a recent DHL trend report stated, technologies such as big data analytics, Internet of Things, and self-learning systems will continue to digitalize logistics processes, enabling new ways of increasing process efficiency, enhancing interaction with customers, and driving new business models. The prize: companies that adapt to a digital world are 26% more profitable than their peers.

This digital world has a complex impact on transportation. Yet, digital technology provides transportation companies with the perfect opportunity to achieve new growth and rethink interactions with customers. In addition, it allows you to further streamline operations, adopt new, innovative business models, and scale the business in ways not feasible before. In short, digitalization will make transportation providers better – to the delight of the customer (shippers) and their customers.

Change does not happen overnight. The goal is to ensure the journey to success in the digital economy is a smooth evolution that is both pragmatic and business-case supported in the near term, and positions the transportation industry for a smarter business operation in the future.

Digital business models are disruptive. The rules have changed.

• Amazon, a specialist in warehouse logistics, now has 173 fulfillment centers globally. Amazon Prime and its same-day delivery service are embedding logistics into the products Amazon sells. Analysts expect Amazon to take over their own logistics currently run by companies like UPS. In Q1 2016 Amazon leased 20 cargo planes.

• Digital mapping of a rail assets menu in the UK will allow maintenance teams to locate assets in the 100-year-old network much faster.

• Old Dominion Freight Lines in the U.S. is highly profitable compared to industry peers due to a strategy of providing a menu of services beyond its core less-than-truckload (LTL) business.

Every business is a technology business

Keys to win in the digital world:
• Lead reinventing and digitizing the business
• Digitize the engagement with customers and partners
• Participate in logistics networks to better orchestrate your end-to-end business processes

Access more information on the latest technology trends here:
The Future: Priorities for Transportation

TRANSPORTATION FOR THE DIGITAL WORLD
What could future change look like in the transportation industry?

ASSETS: ASSET UTILIZATION
It is clear that capacity management and equipment utilization will need to improve, as equipment represents a vital component of the operation. However, with a projected 4x growth in international freight transportation, putting that much additional capacity on the infrastructure is unrealistic. Using digital technologies to match equipment supply to demand in real time as well as predict when maintenance should occur are examples of ways to maximize the available capacity and lower the associated costs.

WORKFORCE: FILLING THE TALENT GAP
Along with assets, the other key resource variable is the workforce. Projections point to a talent gap, such as in the U.S. trucking industry, where the workforce gap of approximately 30,000 is projected to grow to 240,000 by 2022. To meet future requirements, organizations need on-demand sourcing and the ability to provide the type of applications expected by the next-generation workforce.

OPERATIONS: OUTSIDE-THE-BOX OPERATIONS
At the operational level, new business opportunities are created by market forces such as market and regulatory constraints, customer expectations, and technology. A way to exploit these opportunities is to define service capabilities and package them so they can be easily purchased, measured, and improved. This includes not only existing processes but also entirely new offerings, such as local 3D printing to deliver goods on demand.

NETWORK: A SMARTER NETWORK
Finally, in the future, organizations will need to leverage data in the network more than they do today. With sensors sending real-time information as partners in the network execute transactions, advanced algorithms are used to realize higher operating performance levels.

THE WAY FORWARD: ENHANCE CUSTOMER EXPERIENCE
Meeting the demand in the future requires a strategic yet pragmatic approach. Implementing digital solutions into your business without considering the impact on the workforce, your assets, and how work is performed today is a risky and potentially costly move. The following drivers and approach are recommended for meeting the demand:

- Projected growth as well as competitive, market, regulatory, and other influences require constant improvement in operations. The first step is to maximize your existing assets, workforce, and operational processes to deliver new, previously unattainable levels of returns on your invested capital.
- When your core business is running optimally, you can focus on incremental value creation. For example, extend your existing capabilities by defining your (and your partners') services in a services catalog, thereby growing the business while helping the commercial, operational, and customer sides of your business deliver more successfully.
- When your business is operating at its maximum potential and you have leveraged your current capabilities, you are in the best position to introduce new, customer-specific innovation scenarios into your business and the marketplace.

FUTURE HORIZON OF DIGITAL INITIATIVES

---

$18 trillion
Total volume of global goods trade in 2030, nearly double that of 2014

$1 billion
Empty container cost to Maersk Line every year

$500 billion
Shared warehouse agreements provide companies (customers of logistics companies) an opportunity to reduce their logistics costs by as much as 12% to 15%. We estimate that companies implementing these agreements could save close to $500 billion in operating costs.

60% fuel wasted
Due to driver over-acceleration, an issue that could be overcome by technology such as Continental AG’s eHorizon, which plans acceleration and braking to maximize fuel efficiency in freight trucks.
Digital Road Map

Change the rules of the game in the digital world

Digital technologies will be used to address the inefficiencies in the transportation industry and change the future for transportation companies and their customers.
Reimagine Your Investments

Digital approaches and technologies help you realize more out of your existing assets. They deliver key growth enablers by extending your value and innovation programs with a more reliable operation and performance foundation and improved returns to fund future investments.

Maximizing your operation means using new technologies to improve work, which enriches jobs and drives efficiency.

**ASSETS AND WORKFORCE**

Holistic asset management

The assets (trucks, locomotives, wagons, rail track and trailers, containers, warehouse robots, etc.) are aspects of your operation you control to ensure service levels are met while costs are minimized. With a holistic approach to managing and maintaining your infrastructure and transportation assets, you can realize dramatic cost savings while ensuring asset availability.

Reimage work orders with 3D visualization, a digital version of your assets that enables more efficient asset management work processes – from work order instructions to faster procurement to animated maintenance procedures. Today, computer models of parts from 3D systems can be used to print spare parts on demand.

Interactive wearables bring next-generation technology to your operation to improve productivity and safety. Examples are interactive glasses where line workers no longer need to use tablets or pen and paper, but rather tap and speak instructions while working on assets, scanning barcodes, etc. – all while maintaining situational awareness for safety.

Contractor organizations provide specialized workforces vital to all aspects of the transportation business, in particular for capital project programs. Key here is the ability to scale the workforce up and down to address business demands while at the same time ensuring this contingent workforce is managed as effectively as part of your entire workforce.

Address millennial learning needs and preferences through use of modern simulation techniques (gaming) to improve engagement and increase motivation.

**ASSET MANAGEMENT, PARTNER NETWORK, AND WORKFORCE ENGAGEMENT**

Improved asset management collaboration between manufacturers and operators through asset digitalization unites disconnected information silos. This enables information, such as reliability of parts, to be improved and shared.

---

Canadian National railway expects to reduce some of the nearly CA$1 billion contract [labor] spend by implementing SAP Fieldglass solutions.16

“Vision picking” with wearable smart-glass devices has saved 25% pack and pack times according to a 2015 pilot at EXEL.17
Reimagine Improved Business Processes

When you maximize your current investments, you are in a better position to make new investments in your operations that improve service levels as well as enable new service offerings. The resulting higher levels of service performance enable you to profitably meet the demand.

CUSTOMER SERVICE
Silo operations that manage contracts, customer orders, operations, pricing, equipment, invoice presentment, and collection in disparate systems each providing a different perspective of the customer are outdated for the digital economy. Connecting these systems and processes provides a 360°, single view of the truth about the customer and make that view available across all touch points enabling critical functions, such as marketing, sales, and operational delivery to work together seamlessly.

FORECASTING PRECISION
Understanding transportation outlook is a tremendous challenge due to the volume of data, macroeconomic indicators, and origin/destination pair combinations. With the latest computing power, visualization tools, and unique forecasting models, better insights are easier to identify. For example:

- Identify key drivers of performance by commodity, location, and customer across multiple lines of business
- Understand how macroeconomic indicators and customer satisfaction (price, service, sentiment) impact business performance

CONDITION-BASED MANAGEMENT
Sensor data, high-powered computing, and advanced algorithms identify smarter management strategies that determine the optimal time for maintenance, automatically generate work orders, and orchestrate logistics services delivered by sourcing networks. The result – a shift in the cost/risk curve down, driving millions of dollars to the bottom-line in terms of lower maintenance costs as well as asset acquisition avoidance and at the same time improving service level reliability and availability.

Internet of Things-based maintenance innovation represents an opportunity to transform expensive traditional business processes, reaching a new balance between cost and risk. Specifically, assets are not repaired based on traditional time and/or distance parameters but rather when the asset indicates it needs repair, resulting in longer useful life of the asset and better service levels.

Although Big Data analytics can never replace subject matter expertise, the ability to synthesize detailed analysis on multiple levels into easy-to-consult dashboards allows you to focus quickly on potential problems and opportunities.18

Anticipating events and maintenance operations will enable our company to reduce errors and make processes more efficient, while delivering better services and improved quality standards. We expect an 8-10% reduction of maintenance costs of 8-10% against an annual maintenance spend of 1.3 billion € per year.4
Reimagine Business Models

Digital transportation platforms will be a key strategy for the digital world. These platforms use data from a wide variety of sources to improve efficiencies in all aspects of transportation, from buying and selling to operations and receivables. The future will bring significant operational gains resulting from converged systems platforms leveraging data between shippers, transportation providers, and all participants to orchestrate improved transportation results and meet the demand.

ENHANCE CUSTOMER EXPERIENCE

LOGISTICS BUSINESS NETWORKS
Message flows in the network will continue to increase as information about the order continues to be as important if not more important than the physical movement of goods. The future will bring a network of networks, such as logistics and asset networks.

SERVICES REVENUE MODELS
Bring your business into the digital age by productizing your services depending on the specific service execution. For example, you can define goals for intermodal service such as cut-off durations and define services and equipment options. But more important is the ability to specify your best practice parameters as to how work should be performed (when and how) as well as the ability to measure against the parameters, 24x7.

FLUIDITY AND RESILIENCY
The flow of assets in the network is the most important determinate of performance. Using sensor capabilities, hyperconnected networks, and next-generation processing power, new operating models help extract more performance. When new levels of operating performance are realized, there is additional capacity to take on incremental business without additional investments in assets.

BRAND EXTENSION
Customers expect convenience and product availability. As the traditional sourcing lines blur, the role of transportation and logistics, historically “behind the screens,” becomes a relevant part of the product mix. New models are emerging that reshape the network while creating opportunities to extend the brand.
• Direct-to-car deliveries
• Extending into distribution without stocking inventory by installing 3D print shops within the existing transportation network

TOTAL TRANSPORTATION SOLUTION PROVIDER
Shippers are now looking for services and service providers that support their business strategies. This drives the need for a portfolio of innovative service offerings.

Other examples of innovation in this area include:
• Expanding modal choices from carriers
• Supply chain services such as trans loading, warehousing, global logistics services, and white glove deliveries
• Supply chain and logistics data transparency, allowing your customers to understand options and costs at a more granular level

Underlying all these examples requires successful technology. All portfolio offerings need to be digitally connected to the workforce, assets, suppliers/partners, as well as customers to deliver innovation and meet customer expectations.

BUSINESS MODEL DISRUPTORS
A new category of transportation providers described by PWC as “hybrid carriers” are acquiring complementary companies with the aim to provide a broader portfolio of flexible services.19

BRAND EXTENSION
UPS is testing adding 3D printing and delivery services into its product mix. As of 2015, the industry had grown 34% annually from the prior three years and UPS announced a partnership with SAP.20
Technology Platform

In a connected world where every company is becoming a technology company, smarter products and services will refocus commerce on business outcome and blur industry lines.
Digital Transformation Framework
Every transportation company needs to think about the five pillars of a digital strategy

Transportation companies must digitalize to grow profits and reduce costs by simplifying their operations. The value of the digital economy is based on how to serve the customer (shipper) and their customers.

SAP understands the five pillars of digitalization, and we also understand that the continuously changing requirements pose big challenges for businesses. The method of reimagining business models, business processes, and work (operations) helps develop the digitalization road map.

We built the SAP Digital Transformation Framework methodology to support transportation companies in developing and executing on their digital enterprise strategy to become digital transformers that fully leverage and meet the demand of the digital world.

Value creation often comes from solutions in your distributed operation, which are based on and coordinated by the digital core. It is the platform for innovation and business process optimization, connecting the workforce, the Internet of Things, the supply network, and customers.

1. Outcome-based customer experience
2. Re-platform core business processes and bring together transactions and analytics in real time to be smarter, faster, and simpler
3. Smarter and engaged workforce across all employees and contractors
4. Supplier collaboration to accelerate growth innovation
5. Harness assets and the Internet of Things to drive real-time insights and new business models
SAP Digital Business Services Portfolio

SAP has innovated its portfolio to provide both for a stable digital core as well as flexible line-of-business (LoB) extensions.

In the digital economy, simplification and business innovation matter more than ever. To do this effectively, it’s important to cover the end-to-end digital transformation journey, ranging from planning a digital innovation road map and implementation plan with proven best practices to being able to run all deployment options and ultimately optimize for continuous innovation with a focus on outcomes.

Processes are designed from the outset to flow end to end across SAP solution extensions, listed in the white bands, and are fully integrated to S/4 HANA Enterprise Management and are optionally deployed to address business needs. The solution capabilities in the dark blue band, the digital core, are delivered as part of S/4HANA Enterprise Management. The lighter blue band, also in the digital core, are part of S/4HANA Enterprise Management, but added as needed.

Learn more about SAP solutions today and discover planned innovations by accessing the SAP road map for transportation solutions here:
**Digital Capabilities**

**Maximize Current Investments**
- Reimagine processes to acquire, train, and retain a skilled workforce and to operate and maintain asset.
- Focus on more efficient management of assets and orders through real-time visibility to partner transactions, equipment health, and predictive insight, and analytics.
- Leverage a 360-degree view of the customer to build strategic relationships and own more of the logistics value chain.

**Enhance Processes Enabled by Digital Capabilities**

**Extend Business Model and Your Brand**

**Typical business benefits**: 
- Perfect order fulfillment
- Increase on-time delivery and pickup: +10%–20%
- Customer satisfaction: +10%–20%
- Improved revenue stream for service offerings

**Digital Innovation SAP Leonardo**

<table>
<thead>
<tr>
<th>SAP Cloud Platform</th>
<th>Internet of Things</th>
<th>Analytics Services</th>
<th>User Experience Services</th>
<th>Mobile Services</th>
<th>Security Services</th>
<th>Collaboration Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>Marketing</td>
<td>Commerce</td>
<td>SAP HANA</td>
<td>SAP HANA</td>
<td>Sales planning and performance management (CM)</td>
<td>Asset operations and maintenance</td>
</tr>
<tr>
<td>Operations</td>
<td>Asset Management</td>
<td>Human Resources</td>
<td>Finance</td>
<td>Procurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMO/Head of Sales</td>
<td>COO</td>
<td>COO</td>
<td>CHRO</td>
<td>CFO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SAP S/4HANA**

<table>
<thead>
<tr>
<th>Digital Core</th>
<th>Sales and Marketing</th>
<th>Operations</th>
<th>Asset Management</th>
<th>Human Resources</th>
<th>Finance</th>
<th>Procurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP Leonardo</td>
<td>CMO/Head of Sales</td>
<td>COO</td>
<td>COO</td>
<td>CHRO</td>
<td>CFO</td>
<td></td>
</tr>
</tbody>
</table>

**Sales and Marketing**

- Provide a single face to the customer across all business units and services.
- Increase customer satisfaction with near-real-time, comprehensive, cross-business-unit, best-of-class business practices connecting order-to-cash, order execution, and billing to manage the complete order lifecycle.

**Operations**

- Improve operations by reducing redundancy and improving predictable demand sensing, synchronized workforce, and partner collaboration.
- Manage with real-time visibility to all activities across the enterprise through the use of cost-effective sensors as well as advanced processing power.

**Asset Management**

- Monitor asset operations and maintenance in real-time with instant information to complete asset history including financial information.
- Replace manual transaction work with digital business processes.

**Human Resources**

- Attract, train, and retain current and new workforce.
- Identify, forecast, and address skill gaps through a holistic, integrated suite of applications.

**Finance**

- Understand the financial impact across the enterprise of the business, leases, expansion, or contraction of workforces and equipment.
- Set a foundation for soft close to increase financial visibility.

**Procurement**

- Create efficiencies through advances in technologies such as the IoT to provide a platform that can meet the demands of access to all processes, transactions, and analytics.

**Benefits**

*Benefits are based on early adopters of SAP S/4HANA or conservative outside-in benefits due to moving from a traditional ERP system to enhanced capabilities of SAP S/4HANA, as well as line-of-business and cloud solutions.*
How Does It All Come Together? – Example: Port of Hamburg

Each of the five digital business pillars delivers individual business value, but next-generation business processes will span multiple pillars to drive efficiency internally and across the logistics network, connecting to devices and improving transportation performance. Here is a live use case that takes sensors in transportation to the next level.

USE SENSOR DATA TO ORCHESTRATE ORDERS AND ASSETS

In the course of a day, change is the constant. The digital core is intuitively designed to automate business processes, allowing you to focus on the exceptions. Using sensor data is a step-change that enables detection and resolution—in other words, providing better information and in some cases, automating the exception resolution.

The diagram above illustrates the complex activities associated with logistics and how IoT is playing a role in simplifying the process. The normal operations of establishing contracts, managing the bookings, communicating with the carriers, fulfilling the orders, paying the bills, invoicing your customers, and determining profitability are core business activities. When there is a disruption to a shipment, such as when the customer changes the order or there are operational issues such as schedule changes, equipment or labor shortages, congestion, or even weather:

- Sensor technology is used to first detect those challenges—knowing something is not going according to plan sooner saves significant expense
- SAP solutions evaluate and provide alternative actions to mitigate the issue—real-time decision support tools are essential into today’s fast-moving environment
- Automation and/or individuals execute the resolution to ensure fluidity in your business—you control how actions are managed. Your customers will receive orders on time with updated and accurate invoices, your carriers will have complete transparency to expectations, and your company will have minimized the impact of the unexpected.

The Hamburg Port Authority (HPA) needed to double capacity by but did not have room for expansion. With 121 million tons of goods being moved at Hamburg port per year and 33,000 trucks running per day, optimizing operations is the strategy to increase the volume of transported goods. Specifically, they focused on improving responsiveness to operational variations to improve fluidity in and out of the port.

To improve fluidity, HPA uses SAP’s in-memory technology, the SAP HANA® platform, to monitor and respond to traffic flow of transportation orders. The digital business scenario diagram illustrates the order lifecycle. Every potential delay and interruption in service schedules can be either prevented or proactively managed, delivering a very efficient, on-time shipment, where any sign of exceptions to the plan have been immediately addressed. Key to enabling this are sensors monitoring traffic activity, communications with logistics partners via a logistics business network, and real-time analytical processing using SAP HANA. 31.37

The SAP Networked Logistics Hub application demonstrates there are significant efficiency gains to be realized in the modern transportation process. In this example, decision makers do not have to waste time and money evaluating information from multiple systems. The decision support tools lead the user(s) through a logical decision process, automatically providing contextual information along the way, such as the status of transportation assets, ports activity, traffic alerts, or customs documentation.
From Your Current State to Digital

The transportation journey in the digital world begins with a capability analysis that results in the transformation agenda.
In the digital economy, simplification and business innovation matter more than ever. To do this effectively, it’s important to cover the end-to-end digital transformation journey. This ranges from planning a digital innovation road map and implementation plan with proven best practices to the ability to run all deployment options and ultimately optimize for continuous innovation with a focus on outcomes.

Transforming from Your Current State to Digital

To move forward with speed and agility, it helps to focus on live digital data, instead of Big Data, and combine solution know-how and industry-specific process expertise with data analytics so that the right digital reference architecture is defined and delivered. In that context, a model-company approach can enable airlines to transition from their current state to digital. Model companies represent the ideal form of standardization for a specific line of business or industry. They are built on existing SAP solutions using best-practice content, rapid prototyping solution packages, and additional content from customer projects. They provide a comprehensive baseline for rapid customer-specific prototypes, cloud demos, and quick-start implementations.
SAP Digital Business Services
Enabling your success in digital transformation

SAP has a broad range of services to cover the end-to-end digital transformation journey, ranging from consulting on a digital innovation road map and implementation plan with proven best practices to the ability to run all deployment options and ultimately optimize for continuous innovation. We provide both choice and value within our service offerings, allowing you to tailor the proper approach based on your specific company expectations and industry requirements.

- 25,000 professionals in 70 countries
- Customers in 130 countries
- Outcomes delivered as one team in one contract
- Projects connected in real time to a global network of support functions through SAP Mission Control Center
- SAP MaxAttention™ and SAP ActiveEmbedded services to safeguard investment
- Consistent experience – on premise, in the cloud, or a hybrid
- Standardized adoption of processes and tools
- Streamlined onboarding and ramp-up of stakeholders

From proposing a comprehensive digitalization proposal to realizing and running it, SAP delivers on the digital transformation promise to its customers on time, within budget, and on value.

Value delivery from SAP is possible due to our many unique, differentiating assets:

- Expert organization
- Global reach
- Partner ecosystem
- Industry expertise
- Focus on business outcome
- Co-innovation

SAP Digital Business Services deliver digital innovation with simplification and accelerated implementation, which is key to adoption and value realization. Continuous improvement is supported through the ongoing assessment of real-life data insights and joint governance with customers.

Value delivery from SAP focuses on the following deliverables:

- Digital business model
- Flexible, scalable enterprise architecture
- Platform for the future
t- People and culture transformation

- Digital boardroom
- Predictive customer insights
- Value realization dashboard
- Agile decision-making and execution support

- Continuous Improvement
  - Joint value governance
  - Sustainable engagement model
  - Innovation without disruption
  - Simplification

© 2017 SAP SE or an SAP affiliate company. All rights reserved.
Comprehensive SAP Ecosystem
Orchestrating the world to deliver faster value

Our comprehensive ecosystem for the transportation industry offers:

- Integration into a wide range of business services (suppliers, banks, key vendors, travel, and more)
- Open architecture, with a choice of hardware and software
- Complementary and innovative third-party solutions
- Reach, with partners to serve your business of any size anywhere in the world
- A forum for influence and knowledge
- A large pool of industry experts with broad and deep skill sets

Business network
- 1.9 million suppliers
- 200 major travel partners (air, hotel, and car)
- 50,000 service and contingent labor providers

Influence forums and education
- 32 user groups across all regions
- 40+ industry councils
- SAP Community with >24 million unique visitors per year
- 1,800 members of the SAP® University Alliances network

Innovation
- 1,900+ OEM solution partners to extend SAP solutions
- 2,000 startups developing apps on the SAP HANA® platform

Driving customer value

Implementation services
- >300 services partners focused on oil and gas
- 3,200 services partners
- Delivering >1,300 industry-specific solutions

Platform and infrastructure
- 1,400 cloud partners

Channel and SMEs
- 4,800 channel partners
Why SAP?

SAP enables the digital transformation with the digital core, business networks, supply chains, and the internet of things.
SAP Is Committed to Innovation

Vision  Help the world run better and improve people’s lives

Mission  Help our customers run at their best

Strategy  Become the cloud company powered by SAP HANA

- 87,000 employees representing 120 nationalities
- 350,000 customers
- SAP operates in 191 countries
- 98% of top valued brands are our customers
- 18 of the 25 fastest-growing retailers in the world run SAP® software
- 10 of the 10 most admired apparel retailers in the world run SAP solutions
- 2011 SAP HANA® platform launched
- 2012 SAP Cloud portfolio launched
- 2014 business networks run by SAP are the largest marketplace in the world
- 2015 SAP Cloud Platform launched
- 2015 SAP S/4HANA®: Most modern ERP software
- Member of Industry 4.0 board and the Internet of Things Consortium
- 85% of the transportation and logistics providers in the Forbes Global 2000 are SAP customers.

Working with Ariba has been instrumental in helping British Airways realize its cost saving objectives and demonstrating the critical role procurement can play when industry revenues are down. British Airways was able to process 80% of its purchases electronically and achieved a 40% reduction in transaction costs.21

Bangkok Airways is deploying SAP Business Suite powered by SAP HANA. Now with integrated and improved internal processes, Bangkok Airways can offer customers mobile communications for flight changes and other digital services, all in one place. With real-time insight provided by its SAP HANA engagement, Bangkok Airlines now analyzes its data to strategically trim unnecessary costs.17

“From procurement to HR, SAP is allowing Etihad Airways to run live and run simple.”22
Outlined below is additional external research that was used as supporting material for this paper.


13. “Empty containers cost Maersk Line USD 1 billion a year”, Shipping Watch, June 2016 http://shippingwatch.com/articles/article4891909.ece


15. “In trucking, a little automation saves a lot of money”, Fortune, May 2015 http://fortune.com/2015/05/19/trucking-automation/?id=sr-link4


Note: All sources cited as “SAP” or “SAP benchmarking” are based on our research with customers through our benchmarking program and/or other direct interactions with customers

Note: Some images used under license from Shutterstock.com

Note: Logos contained in this document are used with the permission of SAP’s partners.
Authors
Outlined below are major contributors to this white paper.

Kevin Schock heads the unit responsible for the SAP solutions strategy and direction for the transportation and logistics industries at SAP. He leads a highly-experienced team responsible for the company’s overall industry sectors strategies, oversees the global business, directs product and solution road maps, and leads go-to-market activities. Kevin has over 30 years of experience, primarily in the transportation industry in business and technology leadership roles.

Kevin Schock  
Vice President, Solution Management  
Transportation & Logistics  
Dallas, TX, USA  
kevin.schock@sap.com

Tim Motter has been with SAP 17 years and is a senior solution manager in the travel and transportation business unit. He has over 25 years of supply chain, logistics management and transportation experience as well as experience across multiple industries. Tim helps companies with their vision to have world-class business processes and deliver the greatest value through SAP solutions.

Tim Motter  
Senior Solutions Manager  
Transportation Industry  
Denver, CO, USA  
timothy.motter@sap.com