Digital Metals Business

Inspire and shape

a digital world that
reinvents customer focus,
productivity, and quality
Dear customers and partners,

The global metals industry is at a turning point as it considers how to differentiate and to compete in this age of slow-growing demand, oversupply, and intensified competition on intermaterial substitution. As the world population approaches 10 billion people, the rising middle class in emerging economies is the driver for increased metals demand as these consumers exercise their spending power for cars, housing, and other items. Demand for steel is expected to grow but at a slower pace than in the past, and will not be distributed evenly across the globe nor across metals subsegments. For example, steel demand in construction will increase due to infrastructure investments, while the trend to smaller and lighter cars will negatively impact flat-steel demand.

The biggest influence on the market is the cycle of investments in new assets that started more than a decade ago. These investments expanded the global capacity significantly, but the world economy and related metal demand did not keep pace.

These new industry fundamentals are forcing dramatic changes. Metals companies need to find solutions to be profitable in oversupplied, competitive, and constantly changing markets. Proven business models and business plans based on enormous capital investments in plants and assets will face significant challenges.

Digitalization in support of the business is increasingly being seen as a crucial element to both protect against global challenges and achieve sustainable growth while becoming a strong lever for competitiveness and differentiation.

Leading companies are embracing the new paradigm shifts in technology and reimagining their processes, asset management frameworks, and customer relationships along five strategic priorities:

• Innovative products
• Small lot sizes and individualization
• Customer collaboration
• Value-added services
• Disintermediation

This reimagination requires a digital metals business framework that overlays through the production and distribution value chains of metal products. All participants – miners, primary metals producers, fabricators, and distributors – will use digital innovation to anticipate real-time demand and supply, enhance process excellence for operational efficiency, operate resilient supply chains, and innovate the customer experience. This will continuously optimize and enhance the business outcomes for innovative and adaptive participants in digital metals businesses.

This document offers our perspective on where the industry will go and how SAP can help in the evolution of the digital metals business. Thank you for your interest, and we are looking forward to your feedback.

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Technology trends drive digital to the next level
Metals companies face tough competition due to overcapacity, slow growth in demand, and new market entrants that reshape the way of doing business and make it run faster. This is reinforced by global trends such as the circular economy or the drive to reduce CO₂ emissions. Technology is part of the answer and strategy. The Internet of Things (IoT) enables new Web shops and marketplaces that need real-time data and connectivity with multiple partners to operate successfully. To secure business, metals companies are required to improve manufacturing and related activities and, at the same time, handle customers better. Machine learning is driving both areas as it can help to improve product quality and maintenance. It is also a game changer in process automation and will help change the conversation with customers. Blockchain, mostly known in conjunction with bitcoin, will have a big impact on how you can, for example, track material to operate in a circular economy and prove the origin of scrap. Augmented reality will change plant operations by blending physical and virtual models. Leading metals companies are already testing the use of these technologies to improve their competitiveness.

Leaders are emerging quickly, seemingly from nowhere
The definition and look of the metals industry is changing. What were previously relatively secure and defined domains owned by the players of the metals value chain – primary metals producers, fabricators, and distributors – are now being challenged by blurring lines in the metals business itself and, most likely even more so, impacted by unexpected new entrants. For example, primary metals producers take away business from the fabricators and traders by selling a range of products directly to end consumers. On the other hand, new entrants running successful businesses seemingly unrelated to metals are considering entering this industry segment with as yet unknown business models and services. For example, Amazon is beginning to offer steel products. Perhaps the metals industry will start to look more like the consumer products or high-tech industry, where many brand owners only do design, selling, and marketing and outsource manufacturing. No matter what happens (and time will tell), it’s certain that the industry cannot avoid the changes that are happening.

It’s not about the plant – it’s about your customer beyond the fence
For many metals companies, creating high-quality products is still the prime goal. But, of course, these products have to be bought by someone, and the selling process itself gains greater importance for delivering value to the customer beyond the products being sold.

Transformation drivers
Of course, change is not only defined by technology and customer expectations. The metals value chain is transforming, driven by various global trends. More and more regulations come into play, and violations not only cause fines but can also impact brand, image, and social license to operate. So staying compliant is mandatory. As energy and resource availability is limited, the focus is on more output with fewer raw materials and lower environmental impact. To support this approach, today’s smart equipment provides data that can serve as a baseline to keep assets running as efficiently as possible. Beyond the machines, there is a greater need to have a highly skilled, technology-savvy workforce. This is a challenge as the metals industry is usually not thought of as an attractive industry to work in. Business is becoming more global, and unification of platform, data, and processes helps manage global sourcing and complex supply chains.
Strategic Priorities for Metals Companies

In this situation, where the opportunity is huge and new market entrants are threatening traditional metals companies, it is essential to focus on the right strategic priorities to drive digitalization across the business.

1. **Innovative products**
   Constant innovation is demanded by customers, such as metals made from recycled material, new grades for strength, innovative coatings, and better processing capabilities.

2. **Small lot sizes and individualization**
   Quick order completion and delivery of tailor-made solutions create additional value for customers.

3. **Customer collaboration**
   Critical customer relationships need to be strengthened for sustaining high customer satisfaction and retention rates.

4. **Value-added services**
   The digitalization and interconnection of products and services create additional value. An example is to advise on the best usage of a complex product, which can drive new revenue opportunities.

5. **Disintermediation**
   Companies will increasingly look up, down, and across their value chains to expand into additional markets.

Embracing the opportunities from new technologies and addressing the five strategic priorities will be fueled by running efficient business processes:

- **Customer service**: use and sharing of more information to enhance customer satisfaction
- **Organizational innovation**: seamless processes among company units and business partners to increase business strength
- **Real-world sensing of demand**: real-world demand data to improve planning accuracy and decision support
- **Operational efficiency**: more-accurate predictions and faster decisions
- **Energy efficiency**: less energy to achieve targeted quality level
- **Manage talent and recruiting**: simplification across talent acquisition and training processes

**REIMAGINING**

Metals companies have to leave the paradigm of a tonnage-driven business. However, this is no longer sufficient for a successful journey into the future. Customer expectations change and a lower price per physical unit of metal alone will not be enough. Customers ask and will be willing to pay for services and information complementing products and enriching value. The starting point of the digital journey is the ability to reimagine your business together with your customers. That means reimaging your business models, your business processes, and your work.

- **43%** Potential increase in copper demand by 2035 versus today
- **89%** Of metals CEOs plan to make changes in their management of R&D and innovation in response to changing stakeholder expectations
- **"We will take a more consistent route away from copper towards becoming a multimetal producer, and we will establish ourselves a wider basis."**
  Jürgen Schachler, CEO, Aurubis
REIMAGINING

THE DIGITAL ECONOMY OFFERS INFINITE OPPORTUNITIES

In a connected world where every company is becoming a technology company, smarter products and services will refocus commerce on business outcomes and blur industry lines.
Globalization, digitalization, increasing regulation, and decarbonization destroy established business models. We expect that metals companies will explore five major areas of new business models.

### Innovative Products
Customers demand constant innovation such as products made from recycled material or high-strength steel. Efforts to reduce the carbon footprint caused by metals production will drive new products that will also be easier to reuse, collect, and recycle. For example, companies will start offering metal rental as an alternative to purchase. Steel producers will offer new light-steel grades for cars and are already developing innovative ways to apply the new materials to avoid aluminum or carbon fiber becoming the material of choice.

### Small Lot Sizes and Individualization
Metal products can be provided in endless variations. Profitability is often achieved by standardization of products, which doesn’t always provide the best fit to customers’ needs. This paradigm is changing. Large volumes of individual transactions, digitalization and automation of order intake, proofing of requirements, and production planning will become reality and allow quick order completion and the possibility to create tailor-made solutions.

### Customer Collaboration
Metals companies have to strengthen their customer relationships. Historically, the industry has been focused on business to business (B2B), but increasingly it is moving into the business-to-consumer (B2C) arena. Personalized interactions using digitized information can help metals companies provide additional information or services that can attract and help retain customers. This can include co-development of new materials and detailed technical product or order tracking information. Omnichannels, expected by customers, can support these activities. One example is a Web shop that can help close transactions quickly.

### Value-Added Services
The digitalization and interconnection of products and services can be of additional value to a customer. For example, being able to provide additional information on how to handle, use, or deploy a product can be extremely useful. In the metals industry, detailed quality data allows a more-precise use of a product like a coil. This enables the customer to achieve better yield rates. Information on the current location of material is powerful and can help customers improve planning results. This indirect product information will increasingly become part of a wider product offering.

### Disintermediation
Metals companies will increasingly look up, down, and across classical value chains to expand into additional markets. For example, steel companies like ArcelorMittal S.A. and thyssenkrupp AG are starting to sell commodity products directly to end customers, taking over what in the past was the trader’s role. Startups are offering geographically focused metals trading platforms and are disrupting long-term peer-to-peer relationships. The business is being transformed into more of a network.

Decarbonization efforts will push even more steel companies into new, collaborative business setups. For highly efficient modern blast furnaces, additional CO\(_2\) reduction can only be achieved in new industry-cluster setups by integrating chemicals processes beyond the power generation of today.

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“With the world moving towards a low-carbon, circular economy, we believe our integrated approach, with value chain control and competence and technology transfer across our business areas, is the right model to ensure customer value and position us for further development and growth.”
Svein Richard Brandtzæg, CEO, Norsk Hydro ASA

“Based on our digital solutions, we are redesigning all supplier and particularly customer-related processes to be simpler and more efficient.”
Gisbert Rühl, CEO, Klöckner & Co
The traditional metals value chain is transforming at breakneck speed, driven by massive structural changes, new technologies, highly interactive devices, and close-to-real-time processes.

**Customer Service**
Innovative service offerings and processes can have a game-changing impact on customer relationships and the top and bottom line. All service processes will be digitally connected to the workforce, suppliers, customers, and assets for higher efficiency and greater customer value. New services can provide full transparency during order processing and allow access to detailed product data by piece. A service solution could offer joint product planning to help ensure in-time availability to the customer and more-accurate planning for the supplier.

**Operational Efficiency**
Capturing and analyzing data from machines, vehicles, or products support companies to make better predictions, simulations, and decisions. Automation and connectivity across the plant floor reduce error rates, add speed, and cut operating costs. Analyzing sensor data from machines helps predict possible failures early and reduces unplanned downtimes. Augmented reality overlaying the real item in front of you with drawings and instructions can allow workers to safely maintain devices without the need to call expensive, highly skilled technicians. Integrated planning of demand, production capacity, and transportation capacity helps maximize throughput and asset utilization while lowering stocks.

**Organizational Innovation**
Organizational innovation is not limited to changes in the company structure itself, but will impact management methods and information systems and support new ways of running the business. Metals companies that result from merged or acquired businesses often continue to run using the same business or IT structures, despite obvious problems. Digitalization will allow companies to analyze and eliminate these old boundaries to be able to make room for the benefits that come from a new way of running the business. Seamless collaboration and synchronization of all units like R&D, sales, marketing, production, technology, and legal will be key and could extend beyond company borders.

**Energy Efficiency**
Using less energy and thereby reducing the carbon footprint will become a pillar of the metals business. New ways of running a mill in an energy-efficient manner are now possible by using sensor data collected and correlated with business data in near-real time.

**Talent and Recruiting**
Innovation speed in the metals industry is sometimes underestimated. The environmental impact of metal production is still of concern, though much has been improved already. This negative perception impacts metals companies in the race for talent. Use of innovation and technology can help to change this perception and attract and retain new workers. The overall increasing complexity of jobs will drive even more attention to attracting the right talent. Related activities like interactive training, ongoing qualification, and change management will become a mandatory way to run with an efficient, productive, and satisfied workforce.

92% Of metals CEOs indicate customers have a high or very high impact on their business strategy.

“Most people think of innovation as new products. But it is much broader than that. It is innovation of products, innovation of processes, innovation in the systems we use, innovation in HR, in finance.”
Greg Ludkovsky, Head of R&D, ArcelorMittal S.A.
To remain successful in the digital economy, companies must reimagine their business models and processes. The fundamental transformation from historical structures to a digital metals business profoundly changes what people do and how they learn, interact, and grow.

Every substantial business transformation automates manual tasks, enriches jobs, and drives efficiency.

**Digital business processes replace manual transaction work** in procurement, inventory management, invoicing, and payment processing. Digital processes are integrated with real-time analytics to support rule-based decision making.

**The right information at the right time on the right device**
People who need the knowledge have digital access on demand and in real time, regardless if they are part of the core or the extended workforce.

**Predictive and self-learning software** accelerates the delegation of business processes and decisions from people to machines. Shop-floor processes are supported or controlled by predictive and self-learning systems that interact with machines and business processes.

**Interactive technologies** reflect the transition of people’s roles from transaction workers to exception workers who engage when the digital rulebook needs human creativity and ingenuity.

People continue to be key assets in the digital metals business. Their roles will change and further evolve, increasing their value to each segment in the network.

“... access to qualified personnel who can drive forward innovation will be an even more important factor in ensuring that innovation can thrive.”
Wolfgang Eder, CEO, voestalpine Group

“"We are empowering the different parts of the organization to take on projects rather than trying to drive all of them centrally. Driving centrally doesn’t empower. We cheerlead and let the ideas bubble up.”
T.V. Narendran, Managing Director of India and Southeast Asia, Tata Steel

**Flexible business-to-people relationships**
Metals companies operate large-scale technical assets. However, the transformation to a digital metals business also creates hundreds of millions of new people interactions: between customers and service teams, between the core and the extended workforce, and with the public over social and broadcasting networks. Real-time digital information on the right devices is critical to advance the business agenda through interaction among people.
DIGITAL BUSINESS FRAMEWORK

A SIMPLE AND PROVEN APPROACH TO VALUE CREATION THROUGH DIGITALIZATION

Every company across all industries requires a simple digital approach to build a pragmatic and executable vision of its digital strategy.
Every company needs to think about digitalization across five key pillars

We have looked at the five strategic priorities for metals companies and how this leads to reimagining business models, business processes, and work to accomplish the digital transformation. Let’s now look at how SAP can help enable metals companies do this by providing the following architecture.

As companies are reimagining their entire business, they need an IT architecture that provides stability for the core enterprise processes and, at the same time, allows for flexibility in areas where change is happening on a continuous basis.

This concept, which is often referred to as “bimodal IT,” is brought to life through the digital business framework, pictured below.

- **The digital core** is the foundation for the core enterprise processes, which need to run consistently and uninterrupted. It supports real-time transactions and analytics, the ability to work with Big Data, and connectivity to the four outside pillars of the framework.
- **IoT and supply chain** connect all stages of the supply chain and assets on your factory floor to the digital core. A large amount of flexibility is needed to connect new equipment on a constant basis.
- **Your customers** require flexibility in the way they interact with you through multiple channels.
- **Flexibility and adaptability in working with business networks** are key in order to onboard new suppliers quickly and shift supply to alternates.
- **A lot of flexibility is required when building and maintaining an agile workforce.**
SAP SOLUTIONS AND THE DIGITAL BUSINESS FRAMEWORK

SAP has innovated its portfolio to provide 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 the ability 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 the cloud-based solution extensions, listed in the white bands, and are fully integrated with the SAP S/4HANA® Enterprise Management solution and are deployed optionally to address business needs. The solution capabilities in the dark blue band, the digital core, are delivered as part of SAP S/4HANA Enterprise Management. The lighter blue band, also in the digital core, are part of SAP S/4HANA Enterprise Management, but added on an as-needed basis.
Businesses differentiate and compete in this age of slow-growing demand, oversupply, and intensified competition from intermaterial substitution by:

1. Anticipating real-time demand and supply, controlling energy consumption, operating resilient supply chains, and innovating the customer experience.
2. Using a flexible business infrastructure that better balances demand with production, focuses on profitability, and yields more-efficient operations.

**Profit-Driven Supply Chain**

- Gain real-time insights into material availability and flow.
- Support efficient, flexible internal and external logistics and supplier collaboration.
- Track digital components.
- Enable live inventory transparency and management.
- Uplift inventory valuation data into one material ledger.
- Facilitate product configuration and variant management in real-time.
- Establish demand-driven collaborative supply.
- Achieve on-time delivery and availability in advance.
- Route customer orders directly into the factory as production orders.
- Provide real-time visibility to the supply chain—view from customers to suppliers.
- Conduct efficient distribution strategies.
- Create agile, flexible supply chain, operations, and sales planning.
- Enable core CI/CD-friendly processes for engineering, inspection, and improvement.
- Enrich and improve sales processes by using.
- Improve customer satisfaction through driving CI/CD by providing advice on product use.
- Enable vertical integration up to the customer.
- Integrate risk management network with health and safety management.
- Cost due to stock-out: 25%–30%.
- Days in inventory: 20%–25%.
- Total logistics cost: 15%–20%.

**Plant and Asset Operations Excellence**

- Mobile service.
- Predictive maintenance and Service.
- Asset intelligence network.
- Recognize manufacturing patterns.
- Production operations.
- Digital operations for manufacturing.
- Yard logistics.
- Configures, price and quote.
- Cloud for sales.
- SAP Hybris.
- Core human resources and payroll.
- Cloud for finance.
- Talent management.
- Time and attendance management.
- Human capital analytics.
- Service engagement center.
- Cloud for customer.
- Integrated/ Business planning.
- Talent management.
- SAP Fieldglass.
- SAP SuccessFactors.
- Accounting and financial close.
- Treasury and Financial risk management.
- Risk management.
- Receivables management.
- Supplier collaboration.
- Business network.
- Guided end-to-end buying.
- External worktime management.

**Sustainable Customer Experience**

- Enable agile work teams, including external partners, to support collaborative design, as well as sustain value and worth setting.
- Generate leads through predictive product replacement and precise upgradation.
- Personalized marketing and sales.
- Segment customers with approachability.
- Anticipate revenue demand.
- Route customer orders directly to the factory as production orders.
- Drive contextual customer engagement.
- Support omnichannel solution selling.
- Enable flexible work teams.
- Empower employees to make decisions in real time.
- Manage contingent labor services.
- Include payment models for digital services into product subscriptions and facilitate safeguarding.
- Finance and manage the risk of assets that are used and managed through a product-as-a-service contract.
- Optimize working capital.
- Support financial controlling of performance-based service contracts.
- Procurement Excellence: 25%–30%.
- Procurement Excellence: 40%–45%.
- Days payable outstanding on targeted spend: 2–4 days.

**Human Resources**

- Maintain a pipeline of top talent.
- Attract and secure top talent.
- Enable social collaboration among teams.
- Train and certify the workforce on new digital technologies.
- Identify, forecast, and address skill gaps.
- Outsource and train employees quickly and seamlessly.
- Manage contingent labor and services.
- Work with customers through flexible contracting.
- Promote knowledge sharing and community building.
- Manage service team.

**Finance**

- Use simulation and analysis to evaluate financial implications of strategic business choices.
- Manage increased financial risk associated with high volatility supply chain and manufacturing operations.
- Analyze profitability connectivity with multidimensional views such as business, project, and processes.
- Evaluate contracted working capital for the risk of assets that are used and managed through a product-as-a-service contract.
- Calculate key performance indicators in the moment to optimize dynamic and time-based contracts, controls, and supply.
- Allow contractual enrollment of global supply chain with nucleator supply management.

**Procurement Excellence**

- Find and contract talent with specific resource skills to drive innovation beyond the current product scope.
- Anticipate and simplify the integration of material suppliers.
- Enable economies of scale and flexible cost orders through strategic and agile global supply network management.
- Optimize total network spend.
- Include procurement strategies for 3D printed service parts.
- Support advanced shipping notifications and execution.
- Use procurement strategies for 3D printed service parts bundle third-party services with products.
- Support advanced shipping notifications and tracking.
- Integrate contingent worker systems efficiently to augment the workforce.
- Deliver the highest quality in the short-term local demand.
- Integrate supplier collaboration across regions.
- Work with universities and external entities in a flexible manner.

**Typical benefits from SAP S/4HANA**

- Manufacturing cycle time: 25%–30%.
- Inventory: 30%–35%.
- Days in inventory: 15%–20%.
- Total logistics cost: 10%–12%.
- Customer satisfaction: 30%–40%.
- Days in inventory: 20%–25%.
- Total logistics cost: 10%–12%.
- Forecast sales precisely and reliably.
- Total manufacturing cost: 10%.
- Manufacturing cycle time: 10%.
- On-time delivery: +10%.
- Competitive prices: 20%–30%.
- Customer satisfaction: 10%–20%.
- Total manufacturing cost: 10%.
- Forecast sales precisely and reliably.
- Supply chain plan and sales and operations planning.

**SAP Leonardo**

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Benefits are based on early adopters of SAP S/4HANA or conservative outside-in benefits due to moving from an older ERP to an SAP-endorsed SAP S/4HANA and line of business with cloud capabilities.
HOW DOES IT ALL COME TOGETHER?

EXAMPLE

Beyond the Perfect Plant: Use Sensor Data to Proactively Maintain Assets, Deliver the Perfect Order, and Thrive with Perfect Processes

Operating a big plant with a focus on output of products at desired quality and lowest cost has been the model for metals companies for decades. But this is changing as the product alone is no longer a competitive differentiator. Pulling the different digital capabilities together for the next-generation business is the base for achieving, for example, the next level of close customer collaboration or to enter new, often smaller customer segments. Today, sensors provide necessary data used for operational excellence in the plant and also for collaboration between customer and supplier. This will erase the classical model of a product-focused business. Take a look at the following example.

1. An employee of a metals fabricator notices that inventory of metal sheets is unexpectedly low, and there is an open demand to replenish. The system proposes the best sources of supply, and the employee can order materials on a Web shop. Prices and transport characteristics like weight and size are automatically calculated, and even complex product configuration can be entered and verified online.
2. The metal sheet supplier’s SAP S/4HANA software can collect all open requirements and create production orders for these sales orders. Material shortages can be made visible and material requirements planning (MRP) functionality in SAP S/4HANA provides intelligent advice to planners by simulating different options.
3. Although MRP has scheduled all orders in time, a machine breakdown can always happen. Imagine that sensor data is continuously collected and analyzed in real time to monitor asset status and production progress.
4. The sensor information is also fed into advanced analytics models that can predict impending failures early enough to avoid damages. In this example, an excess vibration in a pump is detected.
5. Any abnormal condition can lead to total machine breakdown, and preventive or corrective maintenance measures need to be balanced. Using the prediction engine in SAP HANA® allows you to determine the probable time to failure and the right point in time for maintenance. In this example, a maintenance order is created automatically.
6. Machine master data changes, and all suppliers’ updates can be collected and tagged to the right asset. Once you know exactly the required spare part number, you can check easily if the spare part is available in stock.
7. If the spare part is not in stock, a tendering process can be triggered automatically to query your entire business network. This ensures that the spare part arrives in time for fixing the machine and for producing all ordered products.
8. The metals fabricator that required the metal sheets can always see the current status of the order. In this example, the order will arrive in time. This reliable order processing procedure strengthens the customer relationship.

Watch a video illustrating the scenario here.
FROM YOUR CURRENT STATE TO DIGITAL

THE JOURNEY TO BECOMING A DIGITAL METALS COMPANY BEGINS WITH PLANNING A DIGITAL TRANSFORMATION ROAD MAP
TRANSFORMING FROM YOUR CURRENT STATE TO DIGITAL

The keys to success

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 developing 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.

The end-to-end digital transformation journey

PLAN well to manage expectations

BUILD/LAUNCH with proven best practices

RUN all deployment models

OPTIMIZE for continuous innovation

Simplify and innovate
• Reimagined business models, business processes, and work
• Digital business framework as a guide for digital transformation
• Value-based innovation road maps

Standardize and innovate
• Model company approach to accelerate adoption with model industry solutions
• Design thinking and rapid tangible prototypes
• Co-engineered industry innovations delivered with agility

Run with one global support
• One global, consistent experience
• End-to-end support – on premise, cloud, hybrid

Optimize to realize value
• Capture and realize benefits of digital transformation continuously

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, we believe that a model company approach is relevant to enable you to transition from your 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 has a broad range of services to cover the end-to-end digital transformation journey, ranging from advising 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.

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

SAP value delivery relies on unique differentiating assets:

- **25,000 professionals in 70 countries**
- **Serving 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, cloud, and hybrid**
- **Standardized adoption of processes and tools**
- **Streamlined onboarding and ramp-up of stakeholders**

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

SAP value delivery focuses on the following deliverables:

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

- **Business insights**
  - 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
Our comprehensive ecosystem for the metals 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 automobile)
- 50,000 service and contingent labor providers

Source: internal SAP data
WHY SAP?

SAP has the vision, the solutions, and the commitment to go with you all the way, from defining your digital strategy to delivering the right solutions to running your digital backbone in the cloud.
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

GLOBAL PRESENCE AND RELEVANCE
- 84,000 employees representing >150 nationalities
- 345,000 customers
- SAP operates in 190 countries

INDUSTRY AND LOB FOCUS
- Solutions for 25 industries and 12 LoBs
- 98% of most valued brands are our customers
- 76% of the world’s transactions managed with SAP solutions

DIGITAL ECONOMY READY
- 120 million business cloud users
- 2.5 million connected businesses
- >$800 billion in B2B commerce
- >99% of mobile devices connected with SAP messaging

INNOVATION LEADER
- 2011 SAP HANA launched
- 2012 SAP Cloud solutions launched
- 2014 SAP business networks form the largest marketplace in the world
- 2015 SAP Cloud Platform (previously known as SAP HANA Cloud Platform) launched
- 2015 SAP S/4HANA launched as the next-generation business suite
- 23 of the 25 top steel-producing companies in the world run SAP solutions
- 95% of the iron, steel, and aluminum producers in the Forbes Global 2000 are SAP customers
- >7,800 metals companies in more than 75 countries use SAP solutions

Source: Internal SAP data

TURN DATA INTO VALUE
Severstal: Using digital technology helped the company achieve 16 times faster detection rate for defects and equipment failures at an early stage.14

WORLD-CLASS PURCHASING PROCESSES
"Using one standard SAP Ariba solution all over the world, in 6 months we were able to go from 3%–5% savings to 10%–15% savings.” Thiéry Bourany, Transformation Director for Purchasing, Nexans15

REAL-TIME INSIGHTS FOR FASTER BUSINESS PROCESSES
“I think the largest impact SAP HANA will have in the future is that SAP HANA allows us to establish platforms that are changing the business models, so SAP HANA is a kind of enabler for disruptive approaches, and therefore a very important tool for us.” Oliver Falk, CFO, Klöckner & Co. Deutschland GmbH16
RESOURCES

Listed below are the sources used as supporting material for this white paper.


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.

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