THE INTELLIGENT ENTERPRISE FOR THE BANKING INDUSTRY

Helping to create superior customer experiences through tailor-made solutions delivered at scale and as a service
Dear Customers and Partners,

The rise of smart digital platforms has transformed consumer expectations. Whether it’s planning a vacation, shopping, booking a flight, or even comparing mortgage rates, consumers now expect an easy, instant, and seamless experience.

These digital-first experiences point the way for banks to reimagine their place in their customers’ lives – and to remain relevant and competitive in the coming years. The change will be dramatic, affecting the way banks interact with customers and manage traditional banking products and processes. And while it will enable new products and services, it will require new technology, talent, and a new mind-set to succeed.

“Banking 4.0 will see banks rethinking banking from the ground up. This will affect the way banks interact with customers and manage traditional bank products, processes, and finance and risk operations. The implementation of new technologies and talent will be required to succeed in the digital age. Banks will change to look and operate more like technology companies, providing banking and related nonbanking services as they become digital platforms. Data-driven intelligence will differentiate the successful from the less successful financial services providers, which will include banks and new entrant nonbanks.”

Falk Rieker
Global Vice President
Banking
SAP SE

Access more information on the latest technology trends in the banking industry.

And they must take a more proactive stance: to be where their clients need them when their clients need them.

We have identified four strategic priorities critical to moving forward:

- **Seamless connectivity**
- **Data-driven intelligence**
- **Operational effectiveness**
- **Financial insight and risk control**

To execute on these priorities, banks need a real-world understanding of their customers and the environment to make decisions, solve problems, and carefully manage the customer experience. As a result, data management will become a competitive differentiator.

By 2025, a significant portion of banking revenue will come from nonbanking services. Banks will be a platform for digital services that reflect a wide range of banking and related nonbanking services. Banks will move from being places people safely store their assets to financial partners able to make personalized recommendations based on their customers’ financial history and preferences, as well as a clearinghouse for an array of partner services.

The most successful banks will learn how to weave together formerly siloed processes, intelligent technologies, and real-world data from customers and partners.

Banking provides vital services to society; our impact is poised to grow. But to fulfill this potential, banks need to become intelligent enterprises to respond to increased customer expectations, leverage data, and take a hard look at their own processes. Banking must have the courage to remake itself – or risk being marginalized.

This paper takes a deep dive into the trends shaping our industry and the path to innovation.

The world is changing at unprecedented speed, and our industry is positioned to be a driver of progress. Together, we can have a long-lasting, positive impact.

Sincerely,

Falk Rieker
Global Vice President
Banking
SAP SE
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OUR PLACE IN THE NEW WORLD

Global “megathemes” are affecting the banking industry and are providing new opportunities for growth.

The quest for financial inclusion requires banks to take a leadership role in bringing financial services to underserved customers, creating opportunities for individuals, businesses, and economies. Financial inclusion is a key enabler to reducing poverty and boosting prosperity, resulting in:

- Greater social and economic well-being for individuals
- Higher profits, increased competitiveness, and growth for businesses
- Greater economic growth and decreased inequality (income and gender) across economies
- Increased customer expectations: Bank customers want and expect more from their banks. Today banks are trying to understand how to offer customized offers, products, and services beyond banking transactions while delivering the best customer experience.

- Data as the new currency: Today, data analysis at banks is very fragmented and piecemeal, making a deep understanding of customer needs and wants very challenging. Banks are spending significant resources to reduce duplicate data and create a single view of each customer, from user history to user behavior and intent.

- "Platformification" of banking: A new type of plug-and-play business model is appearing at banks that allows multiple participants (producers and consumers) to connect to the bank, interact with each other, and create and exchange value.

- Evolution of banks into technology companies: Banks are reviewing and changing their organizational structure, technologies, and cultures to run more like technology companies than banks. To compete with the established technology firms for talent, they also need to deliver the best employee experience.

81%

Of 132 banking and insurance decision-makers stated that data management and insight initiative were digital transformation priorities.
By 2025 the role and revenue streams of banks will fundamentally change (see Figure 1). A significant portion of bank revenue will come from nonbanking services. Banks will act as platforms for digital services. These services will reflect a wide range of banking and related nonbanking services to deliver an end-to-end (E2E) service orchestrated by the bank. Digitalized solutions will address the customer of one anytime, anywhere. These services will span from simple after-sales services to more-complex outcome-as-a-service models and the monetization of data assets that banks are able to generate based on the business they conduct.

The business of data management will emerge as a primary technology driver and competitive differentiator for the bank. To achieve this vision, banks must integrate and increase transparency of their own E2E processes and operations.

Banks, now and in the future, need a real-world understanding of their customers and the environment to learn from this information, make decisions, solve problems, and carefully manage the customer experience.

By shifting routine tasks from humans to business systems enabled by machine learning, banks will free up the capacity needed to define and pursue innovative and transformative business models, thus becoming intelligent enterprises. “Developing an omniadvisory and facilitation services business model requires building intelligent banking operations and customer profiles. This would be impossible unless banks develop connections with the ecosystem to master open (customer) data.”

Figure 1: Banking Transformation Curve

95% Of financial services companies believe moving business processes to the cloud would notably improve their ability to digitally transform their whole ecosystem

95% Of financial services innovators believe adopting Big Data and real-time analytics technologies will help them achieve their digital transformation goals

83% Of innovative organizations have started their digital transformation journeys, compared to just 66% of other organizations

62% Of finance companies are currently investing in, expanding, or upgrading cloud investments

93% Of innovative companies believe cloud technologies will have an impact on improving service delivery and effectiveness

91% Of innovative companies believe cloud technologies will help increase the speed of analysis
FOUR PRIORITIES FOR SUCCESS

We have identified four strategic priorities necessary for banking organizations to transform their business.

SEAMLESS CONNECTIVITY
DATA-DRIVEN INTELLIGENCE
OPERATIONAL EFFECTIVENESS
FINANCIAL INSIGHT AND RISK CONTROL
SEAMLESS CONNECTIVITY

Bank customers expect more of their banks. They expect an experience similar to other commercial retail sites – easy to use with personalized recommendations for products and services.

Users are increasingly expecting their banking platform to go beyond banking services by providing integrated, complimentary, partnered services and offerings. Users are looking to banking as a platform for needs beyond financial services.

The Vision

In 2025 banking will be a customer-experience-driven business. Customers will access and obtain services seamlessly on any device, based on a detailed product set catered to a customer of one (see Figure 3). Customers will be able to consume banking and nonbanking services without a detailed knowledge of the financial services industry and jargon, but rather through product intent and desired outcomes.

The Journey

Banks will start toward this goal by linking islands of information to create a unified customer view through various technologies (APIs). Then, using virtual views across divergent systems using in-memory and cloud technologies, banks will service and sell products to the customer. Banks will then create products for a customer of one – unique and specific to that individual customer with product attributes that are outcome driven, not product-feature driven.

91%

Of innovative companies believe cloud technologies will help increase the speed of analysis.

Figure 3: Future of Seamless Connections

Today

Future

Segmentation

Single Customer
Customers are demanding that their banks provide a similar experience to those delivered by their retail and social media interactions. Banks are responding with new products and services that look, act, and feel like those frictionless experiences. These new products and services impact every facet of business, not just the front office. Banks must address E2E processes across departments and lines of business (LoBs) to deliver on improved customer experiences, products, and services. Banks must attract, cultivate, and retain customers by enabling an integrated, multichannel environment. They must analyze each customer’s behavior and point of view to succeed in the digital age. This lifestyle view determines which products are created and which services are offered when and where to meet the customer’s needs.

### SEAMLESS CONNECTIVITY

#### REIMAGINE RISK MITIGATION WITH SEAMLESS CONNECTIVITY

**TRADITIONAL SCENARIO: MANUAL RISK MITIGATION**

- **LoB business case**
  - New product to market is defined with success metrics
  - LoB also identifies and defines systems needing access and data needed for campaign, requiring intimate knowledge of system landscape

- **IT codes and tests process**
  - for retrieval of target marketing data
  - LoB must scrub and validate test data returned
  - LoB must iteratively provide instructions to IT for data retrieval correction until satisfied

- **Marketing campaign applied**
  - If additional markets segmented further, process returns to IT code and test
  - LoB defines data need from IT to assess success metrics
  - Process returns to IT code and test-batch process

- **LoB consumes success metric data**
  - Success metric reported to management based on segment marketed to during campaign
  - Each campaign follows similar process to the previous
  - New campaigns start from the beginning

**A NEW WORLD WITH SAP: REAL-TIME RISK MANAGEMENT IN THE CLOUD**

- **Cloud-based customer data now a single source**
  - for divergent systems (internal, social, third party), allowing real-time access by digital customer engagement (DCE) tools from SAP without need for deep knowledge of system landscape
  - Campaign segmentation and target customer defined in real time using DCE technology and Big Data

- **Iterative, granular campaigns**
  - run in days, not months, allowing the bank to further segment campaign criteria in the cloud, on the fly, and without IT constraints
  - Machine learning can be applied to campaign results, reducing human dependency for analysis and next best offer

- **Success metrics stream within campaign**
  - allowing bank to further tune segments and campaigns along various inputs without the need for IT development
  - New campaigns built and deployed on the fly without IT dependencies

**TOP VALUE DRIVERS**

- **Faster** business process from business case completion to campaign evaluation
- **More accurate** and personalized product offers, resulting in higher product conversion and dramatic reduction on application abandonment.

*Source: SAP Performance Benchmarking*
When customer needs are taken seriously, it becomes clear that one size seldom fits all.

Individuals as well as companies require solutions that are built to meet their exact requirements and differentiate them. On the other hand, customers are not willing to pay more than for a standard solution, which forces banks to move from rigid product models to approaches that include platforms and personalization to allow customization at scale.

**The Vision**
In 2025 banks will use deep data analytics to really understand their customers’ desires and intended outcomes (see Figure 4). This will lead banks to use data in an intelligent way to position products and services and manage all aspects of the bank. Banks will have transformational, internal cultural change, as incentives are aligned around servicing customers.

**The Journey**
Banks will start toward this goal by applying ML and AI to data. Then they will be able to create, simulate, and forecast various business scenarios and financial impact using deep real-time data analytics to understand customer and market behavior tied to intent. To achieve the cultural change needed, performance incentives will evolve from individual products sales to an aggregate customer satisfaction score correlated to the customer-of-one model.
Every bank needs the computing capability to carry out complex algorithms with large data sets to support timely, real-time analysis. Everyone in the bank must have access to data they need, whenever and wherever they need it. This is also true for the rest of the ecosystem so that compliance officers can monitor transaction histories in real time to ensure policies and procedures are being followed and bankers can see client history for credit risk and other client relationship management tasks. Banks should be able to process applications centrally, regardless of their source, in a digital, multichannel world. They should be able to respond quickly, thanks to a high degree of automation. Decisions should be based on accurate and complete customer information provided through automated application processing and seamless customer onboarding.

**DATA-DRIVEN INTELLIGENCE**

**REIMAGINE DATA-DRIVEN INTELLIGENCE WITH REAL-TIME ANALYSIS**

Every option exists independently as a product, resulting in inconsistency and errors in product management downstream. A multitude of detailed product definitions for each possible combination, generating a low level of process standardization and high maintenance costs.

**TOP VALUE DRIVERS**

<table>
<thead>
<tr>
<th>Faster</th>
<th>Lower</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>time to market</td>
<td>R&amp;D costs</td>
<td>in revenue from new products</td>
</tr>
</tbody>
</table>

Source: SAP Performance Benchmarking
OPERATIONAL EFFECTIVENESS

Banks need to deliver customer-centric products and services using a 360-degree customer view enabled by streamlined and automated banking operations and a seamlessly integrated finance, risk, and compliance system across retail and commercial banking businesses.

The Vision
In 2025 banks will have fewer data silos and will be more connected in their view of the customer – all while automating human-based decisions and reducing errors in the decision stream. This connected view will provide agile product development and will spawn the rise of outcome-based products – products that customers consume based on what they want. Data replication will be replaced with real-time connectivity, accessible anywhere from the cloud, allowing for real-time servicing. Decision-making will be enabled against real-time data, secured by blockchain, and served through the cloud. Latency will dramatically decrease, allowing greater operational efficiency (see Figure 5).

The Journey
Banks will start toward this goal by introducing ML and AI technologies to leverage and manage data – while automating low-value, human-based activities. Once implemented, trade reconciliation, transaction matching, and ledger adjustment will be automated using ML and AI routines, greatly reducing manual intervention. Finally, banks will adopt blockchain for distributed ledger so that maintenance windows and batch processing will be limited and customers will experience no downtime. Blockchain changes the game by taking data from behind the firewall, making information available to external sources and providing a full picture – enabling “open banking” in real time.

Figure 5: Complete Digital Representation of Products Throughout the Lifecycle

Today
Batch-driven manual processes

Future
Always on

95% of financial services companies believe moving E2E processes or business processes to industry cloud would notably improve their ability to digitally transform their whole ecosystem.
A digital core is an IT architecture that offers stability and long-term reliability for core enterprise processes yet also provides the flexibility to adapt quickly to new opportunities, challenges, and regulations. This solid foundation gives you a single source of truth, which in turn enables flexibility for innovation to accommodate things such as new business models, new regulations, and business events such as mergers and acquisitions. Banks need to deliver customer-centric products and services using a 360-degree customer view enabled by streamlined and automated banking operations and a seamlessly integrated finance, risk, and compliance system across retail and commercial banking businesses.

### OPERATIONAL EFFECTIVENESS

**REIMAGINE OPERATIONAL EFFECTIVENESS WITH REAL-TIME RISK MANAGEMENT**

A digital core is an IT architecture that offers stability and long-term reliability for core enterprise processes yet also provides the flexibility to adapt quickly to new opportunities, challenges, and regulations. This solid foundation gives you a single source of truth, which in turn enables flexibility for innovation to accommodate things such as new business models, new regulations, and business events such as mergers and acquisitions. Banks need to deliver customer-centric products and services using a 360-degree customer view enabled by streamlined and automated banking operations and a seamlessly integrated finance, risk, and compliance system across retail and commercial banking businesses.

**TRADITIONAL SCENARIO: MANUAL RISK MITIGATION**

- **Lack of system integration**
  Disparate legacy applications and data silos make it impossible to focus on the holistic customer experience and journey.
- **Manual analytics and risk process**
  Limited or nonexistent aggregate views of customer interactions across channels and products make customer-intent prediction and therefore capital needs difficult or impossible.
- **Batch-driven risk management**
  Siloed landscape product leads to risk being managed at the product level and not at the customer level leading to intelligent guesses about risk management, either resulting in too much or too little in capital and reserves.
- **Slow response to market conditions**
  Batch-driven processes don’t reflect rapid changes in market, leading to intelligent guesses about risk management, either resulting in too much or too little in capital and reserves.

**A NEW WORLD WITH SAP: REAL-TIME RISK MANAGEMENT IN THE CLOUD**

- **Single source of risk management**
  Data streams into the cloud for a single customer view in real time, and analysis can be automated and reported in real time, sending alerts to various business owners for immediate risk management.
- **Analytical tools for real-time risk management**
  Use of transactional analysis for patterns, channel attributes, customer behavior, current and historic values, velocity, and historical pattern trends.
  Real-time analysis of customer intent and behavior based on internal data, third-party data, social media, browser history, and cookie information.
- **Forward-looking what-if scenarios**
  Calculation of forward-looking what-if scenarios using real-time positional risk, whether it be market exposure, asset valuation, liability exposure, or cash reserves, using a single data source in the cloud.

**TOP VALUE DRIVERS**

- **Improve** the customer experience
- **Reduce** fraud and risk
- **Increase** revenue growth
FINANCIAL INSIGHT AND RISK CONTROL

Banks are required to keep their systems and processes up to date in real time in a complex regulatory environment.

Banks need to meet regulatory requirements in an easy and flexible way to keep costs down. Current processes are highly reactive and manual – banks employ entire workforces to chase regulatory compliance.

The Vision
In 2025 banks will migrate to universal journals linked through blockchain and delivered through the cloud (see Figure 6). By doing so, universal journals will allow better access to regulatory and business data, allowing the bank to be more agile and responsive to the requirements for financial insight and control. Third parties will provide contract and accounting capabilities in addition to bank capabilities, allowing banks to meet regulatory requirements from a single source of data while reducing their need for human capital.

The Journey
Banks will start toward this goal by adopting a comprehensive set of technology, process, and governance tools. This will allow data to stream into these tools, simulating positions and financial market conditions in real time and allowing a bank to forecast various business scenarios and financial impacts. Banks will distribute these tools and controls across borders and time zones, reducing market-specific risk while increasing data transparency and regulatory compliance. Finally, banks will enable third parties such as fintechs to share data for advanced insight and control through APIs, allowing banks to shift headcount to higher-value activities.

Figure 6: Future of Financial Insight and Risk Control

Today

Reactive and manual

Future

Universal journals

90% of cloud decision-makers at financial services companies believe in the importance of software that integrates across an E2E value chain in an industry cloud.11
The ability to respond quickly is an essential part of managing a bank. To do this, simulation, prediction, and analytical capabilities are important components. Data is critical for gaining the insight to make decisions. This insight must be at a granular level, so decision-makers have the detail they need to understand trends, opportunities, and risks and quickly carry out what-if analysis using predictive algorithms. Banks are required to keep their systems and processes up to date in real time in a complex regulatory environment. They need to meet regulatory requirements in an easy and flexible way to keep costs down.

FINANCIAL INSIGHT AND RISK CONTROL
REIMAGINE FINANCIAL INSIGHT AND RISK CONTROL WITH A SINGLE SOURCE OF TRUTH

The ability to respond quickly is an essential part of managing a bank. To do this, simulation, prediction, and analytical capabilities are important components. Data is critical for gaining the insight to make decisions. This insight must be at a granular level, so decision-makers have the detail they need to understand trends, opportunities, and risks and quickly carry out what-if analysis using predictive algorithms. Banks are required to keep their systems and processes up to date in real time in a complex regulatory environment. They need to meet regulatory requirements in an easy and flexible way to keep costs down.

TRADITIONAL SCENARIO: MANUAL PROCESSES FOR FINANCIAL DATA MANAGEMENT

- Isolated systems across the bank
  - Many legacy systems that provide point solutions isolated from other systems
  - Legacy systems not open to sharing data or providing minimal data-sharing capabilities
  - Banks dependent on IT to provide custom and isolated services

- Manual analytics and risk process
  - Determining user behavior and intent by running manual processes across multiple systems, normalizing the data, and then conducting analysis, which results in stale predictions
  - Manual processes that make adapting to new regulations difficult

- Fraud analysis after the fact
  - Legacy systems isolated from other channels, resulting in a limited view of fraud exposure and required mitigation to limit that risk

- Slow response to competition
  - Isolated offer management systems that don’t provide a holistic, 360-degree view of customer activity and potential intent, resulting in lost sales and revenue-generating opportunities

A NEW WORLD WITH SAP: A REAL-TIME SINGLE SOURCE OF TRUTH

- Complete customer view in the cloud
  - The SAP Cloud portfolio allows a bank to stream multiple data sources from various systems (internal, third party, social media, and so on) into a real-time, 360-degree customer view

- Real-time analytics and fraud management
  - Provide deep real-time risk assessments for flight, churn, and abandonment
  - Identify fraud behavior in real time, minimizing state predictions and financial loss

- Real-time service and sales in the cloud
  - Increase the LoB’s view of customer profiles, preferences, and activity
  - Create personalized product offers and campaigns based on a user’s behavior within the bank site, as well as off the bank’s site in the cloud

TOP VALUE DRIVERS

- More control over the customer experience, offer management, and customer behavior and intent

- Real-time data management, allowing better fraud management and mitigation as well as sales campaigns that are more relevant to the user

Source: SAP Performance Benchmarking
KEY TECHNOLOGIES

The current pace of technological advancements has the most profound impact on enabling how banks transform themselves to respond to competitive threats and the regulatory environment while improving the customer experience.

Intelligent technologies promise to bring great benefits, such as productivity and efficiency gains, enabling innovative new business models and new revenue streams. The following intelligent technologies are instrumental in helping banks respond to the quickly evolving global financial services marketplace.

**Artificial Intelligence and Machine Learning**

Machine learning and artificial intelligence enable algorithms to “learn” from existing data and achieve the best possible outcomes without being explicitly programmed. Once the algorithm is trained, it can then predict future outcomes based on new data. Businesses can leverage these capabilities to eliminate repetitive manual tasks, such as service ticket management, automatically determining classifications, routing, and responses. They can also be used to anticipate customer behavior – such as account closures and credit card cancellations – with instant insights from transactional data and digital interaction points.

**Advanced Analytics**

The integration of advanced analytics capabilities – including situational awareness – into applications enables business users to analyze data on the fly and drives better decision-making. Empowered users, benefiting from embedded analytics in business processes, can get real-time visibility into their changing environment, simulate the impact of business decisions, mitigate risk, and achieve better customer outcomes and experiences. Predictive analytics of structured and unstructured data provide 360-degree customer insight, enabling banks to anticipate the behavior of its customers, respond to their needs, predict the next best step or product offer, and rapidly engage customers in real time.
Blockchain
A relatively recent breakthrough technology, blockchain is revolutionizing the movement and storage of value by creating a chain of unaltered transactional data. The blockchain model of trust, through massively distributed digital consensus, could reshape supply chains and commerce across the entire digital economy, for example, digitalizing the bill-of-lading document as part of the international ocean shipping process.

Conversational AI
Advances in machine learning are enabling algorithms to become highly accurate in natural-language understanding and in image and voice recognition, especially useful in after-service and call center activities. Voice interfaces will be the go-to for the next generation of applications, allowing for greater simplicity, mobility, and efficiency while increasing worker productivity and reducing the need for training. Customer experience bots for services and commerce provide a humanized way for the customer to interact with their bank. This results in higher customer satisfaction and better customer experiences due to ease of consumption by using ML techniques for natural-language processing.

Robotic Process Automation
Robotic process automation streamlines repetitive, rule-based processes and tasks in an enterprise and reduces cost through the use of software robots by replicating specific tasks or keystrokes. Automation frees up employees for engaging in higher-value tasks, resulting in increased employee satisfaction.

Key Technologies

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97%
Of banks say customer experience is a focus12

94%
Of leaders are investing in Big Data and analytics13

25%
Reduction in attrition by making proactive calls to at-risk customers based on predictive models14

20%
Savings on capital expenditures achieved by adopting intelligent computer programs that can solve and even anticipate complex problems15

60%
Of human tasks will be automated by 202516

99%
Accuracy in voice and video recognition by 202017

360,000 hours
In reduced manual work by using an AI system to automate tasks18
Companies will become intelligent enterprises on three distinct tracks as they evolve their strategic priorities to match their company’s vision. They will:

1. **Optimize** what they already do by implementing a stable and scalable digital core to make processes more transparent and integrated.

2. **Extend** their current processes by connecting them to the real world using IoT technologies.

3. **Transform** their business using a constant stream of data enabling new service-driven business models. (See Figure 7.)

**Figure 7: Strategic Priorities Across Lines of Business**

<table>
<thead>
<tr>
<th>Track</th>
<th>Digital Customer Engagement</th>
<th>Retail Bank Operations</th>
<th>Commercial Bank Operations</th>
<th>Finance and Risk</th>
<th>Human Resources</th>
<th>Procurement Excellence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Experience</td>
<td>Today One-size-fits-all customer experience</td>
<td>Future Tailored omnichannel customer experience</td>
<td>Today Point-to-point solutions</td>
<td>Future Limited real-time insight using optimized queries</td>
<td>Future Rapid deployment of feedback from employees</td>
<td>Future Synchronized and automated procurement and payment process for streamlined operations</td>
</tr>
<tr>
<td>Offer Management</td>
<td>Today Slid loan and product offers</td>
<td>Future Instant loan offerings at point of sale using real-time data</td>
<td>Future Seamless real-time connectivity between corporate ERP and procurement systems and banks</td>
<td>Future Instant drill-down and response to any inquiry</td>
<td>Future Fragmented and not unified</td>
<td>Future Manual, complex, multilevel procure-to-pay processes</td>
</tr>
<tr>
<td>Financial Product</td>
<td>Today Fragmented products and applications</td>
<td>Future Predictive, targeted marketing using AI technologies</td>
<td>Future End-to-end, real-time digital services and platform</td>
<td>Future United data model supporting federated data management</td>
<td>Future Insight to possible outcomes through predictive analytics</td>
<td>Future Fragmented total spend management across all spend categories</td>
</tr>
<tr>
<td>Cash Management and Payment Services</td>
<td>Today High degree of manual intervention</td>
<td>Future Systematic embedded customer feedback process</td>
<td>Future Straight-through processing (STP) factory using ML</td>
<td>Future Limited insight on outcomes</td>
<td>Future Insight to possible outcomes through predictive analytics</td>
<td>Future Fragmented total spend management across all spend categories</td>
</tr>
<tr>
<td>Financial Services Data Platform</td>
<td>Today Digital Marketing</td>
<td>Future Streamlined process</td>
<td>Future Single-GAAP, single product subledger</td>
<td>Future Machine learning to identify key employees for development</td>
<td>Future Limited insight on outcomes</td>
<td>Future Fragmented total spend management across all spend categories</td>
</tr>
<tr>
<td>Workforce Analytics</td>
<td>Today Onboarding</td>
<td>Future Streamlined process</td>
<td>Future Multi-GAAP, multi-product subledger</td>
<td>Future Machine learning to identify key employees for development</td>
<td>Future Insight to possible outcomes through predictive analytics</td>
<td>Future Fragmented total spend management across all spend categories</td>
</tr>
<tr>
<td>Talent Management</td>
<td>Today Compliance</td>
<td>Future Streamlined process</td>
<td>Future Selection process that takes a very long time and candidates that give up</td>
<td>Future Limited insight on outcomes</td>
<td>Future Insight to possible outcomes through predictive analytics</td>
<td>Future Fragmented total spend management across all spend categories</td>
</tr>
<tr>
<td>Supplier Management</td>
<td>Today Operations</td>
<td>Future Streamlined process</td>
<td>Future Machine learning to identify key employees for development</td>
<td>Future Limited insight on outcomes</td>
<td>Future Insight to possible outcomes through predictive analytics</td>
<td>Future Fragmented total spend management across all spend categories</td>
</tr>
<tr>
<td>Supplier Risk Management</td>
<td>Today Compliance</td>
<td>Future Streamlined process</td>
<td>Future Machine learning to identify key employees for development</td>
<td>Future Limited insight on outcomes</td>
<td>Future Insight to possible outcomes through predictive analytics</td>
<td>Future Fragmented total spend management across all spend categories</td>
</tr>
<tr>
<td>Career and Succession Management</td>
<td>Today Compliance</td>
<td>Future Streamlined process</td>
<td>Future Machine learning to identify key employees for development</td>
<td>Future Limited insight on outcomes</td>
<td>Future Insight to possible outcomes through predictive analytics</td>
<td>Future Fragmented total spend management across all spend categories</td>
</tr>
<tr>
<td>Financial Reporting</td>
<td>Today Compliance</td>
<td>Future Streamlined process</td>
<td>Future Machine learning to identify key employees for development</td>
<td>Future Limited insight on outcomes</td>
<td>Future Insight to possible outcomes through predictive analytics</td>
<td>Future Fragmented total spend management across all spend categories</td>
</tr>
</tbody>
</table>

**Seamless connectivity**

**Data-driven intelligence**

**Operational effectiveness**

**Financial insight and risk control**

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**Getting There**

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EARLY DIGITAL ADOPTERS LEAD THE WAY

How do you achieve these strategic priorities?

Start with reimagining your business together with your customers. Then build a path for even more optimization and intelligent automation to simplify your business and free up resources to invest in even more digital transformation programs and find new business models and revenue streams.

Margin pressure and regulatory complexities are a constant challenge for banks. Legacy systems, mergers and acquisitions, along with changes in technologies, business models, and rising customer expectations require constant adaptation.

Banks must be able to respond to increasing customer demands yet still comply with all regulations and reporting requirements.

Figure 8: Banking and Insurance

“How interested is your company or organization in adopting an industry cloud for each of these end-to-end digital transformation priorities?”

<table>
<thead>
<tr>
<th>Priority</th>
<th>Very Interested</th>
<th>Very Interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data management and insights</td>
<td>38%</td>
<td>49%</td>
</tr>
<tr>
<td>Speed to market</td>
<td>41%</td>
<td>46%</td>
</tr>
<tr>
<td>Business support</td>
<td>48%</td>
<td>37%</td>
</tr>
<tr>
<td>Risk and finance processes</td>
<td>43%</td>
<td>39%</td>
</tr>
<tr>
<td>Mobile and digital channels</td>
<td>32%</td>
<td>49%</td>
</tr>
</tbody>
</table>
SAP’S FRAMEWORK FOR THE INTELLIGENT ENTERPRISE

The Intelligent Enterprise framework is a suite of intelligent business applications that use intelligent technologies and can be extended on a digital platform. This enables next-generation business processes to deliver breakthrough business value on the customer’s journey to becoming an intelligent enterprises.

Figure 9: SAP Intelligent Enterprise Framework

Note: This representation is a general visualization of the Intelligent Enterprise and may include functions not covered in every industry.
HOW TO PLAN YOUR PATH TO THE INTELLIGENT ENTERPRISE

In the digital economy, intelligent technologies and integrated business processes are now driving digital transformation.

To do this effectively requires an end-to-end plan for becoming an intelligent enterprise. This includes creating an intelligent enterprise road map and implementation plan with proven best practices and deployment options that optimize for continuous innovation with a focus on intelligent outcomes.

The End-to-End Journey to Becoming an Intelligent Enterprise

Plan
- Well to manage expectations

Simplify and innovate
- Reimagined business models, business processes, and work
- SAP intelligent Enterprise Framework methodology 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
- Coengineered industry innovations delivered with agility

Run
- All deployment models

Optimize for continuous innovation
- One global, consistent experience
- End-to-end support – on premise, in the cloud, or with a hybrid approach

Optimize to realize value
- Continuously captured and realized benefits of digital transformation

To move forward with speed and agility, it helps to focus on live digital 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 is aimed at simplifying and increasing the speed of the digital transformation journey.

Model companies represent the ideal form of standardization for a specific line of business or industry. They are built on preconfigured SAP solutions based on best practices supported by SAP, along with the business content that encompasses our experience and expertise relevant for the industry. They provide a comprehensive baseline and come with the accelerators to jump-start digital transformation projects.
Our comprehensive banking ecosystem offers integration into:

- A wide range of support and implementation services
- Complementary and innovative third-party solutions
- Reach, with partners to serve your business of any size anywhere in the world
- Forum for thought leadership, influence, and knowledge
- Large skill sets

Our partner ecosystem includes, among others:

- Accenture
- ADWEC
- AXIOMSL
- AXIOME
- BearingPoint
- CONVISTA
- Deloitte
- Docusign
- DXC.technology
- EY
- Hexagon
- IBM
- TIB

- msg
- OpenText
- Quantiply
- r3
SAP is committed to innovation

10-Year Innovation Vision
SAP delivers fully intelligent business solutions and networks that span across company boundaries and promote purpose-driven businesses. These solutions will be the most empathic symbiosis between machine intelligence and human ingenuity.

- Self-running enterprise systems
- Self-organizing business ecosystems
- New markets and business models

Comprehensive Industry Coverage
SAP enables comprehensive coverage of the complete banking value chain across the enterprise. With its clear industry road map, SAP is the partner of choice for the banking industry.

- Customers support more than 140 million active banking accounts across the world
- Global banking customers manage over US$70 trillion in assets
- Support for all lines of business on a single platform

Proven Services Offering
By bringing together world-class innovators, industry and emerging technology expertise, proven use cases, and design thinking methods, we help banks develop innovations that deliver impact at scale

- Proven methodologies to drive innovation, from reimagining customer experiences to enhancing operations
- Innovation that is fueled through a managed innovation ecosystem from SAP
- Ability to build your own innovation capability and culture

SAP supports banks in becoming intelligent enterprises – providing integrated business applications that use intelligent technologies and can be extended on SAP Cloud Platform to deliver breakthrough business value.

Learn more
- SAP.com for Banking
- SAP Leonardo
- SAP Digital Business Services
- SAP Design Thinking
Outlined below is external research that was used as supporting material for this paper.


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