WHITE PAPER

From algorithms to impact: Banking's AI future

The financial services sector transforms to seize the AI opportunity

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Foreword

By **Stu Bradley**, Senior Vice President, Risk, Fraud and Compliance Solutions at SAS

> Spending on AI will hit $85 billion by 2030 in the banking industry, according to recent research from Juniper. This trajectory aligns with a 55% compound annual growth rate and suggests that banks see great potential in this still-emerging technology. Additional **generative AI research** also indicates optimism.

There's no doubt that the financial services sector has emerged as a leader in AI adoption. For those who take the right approach, the value is clear and compelling.

AI's fundamental value lies in its ability to analyze massive amounts of data and provide real-time insights. We see this among common use cases within the banking industry – from improving fraud detection to having a greater ability to make real-time decisions at the time of loan applications.

What's remarkable is the sector's leadership in generative AI deployment. Really coming of age in just the last couple of years, GenAI holds the promise of augmenting the skills of every worker, from junior loan officers to CFOs. According to SAS research, 60% of organizations in the banking industry have deployed GenAI use cases. An additional 38% expect to deploy GenAI within the next two years. The list of current use cases extends across every function.

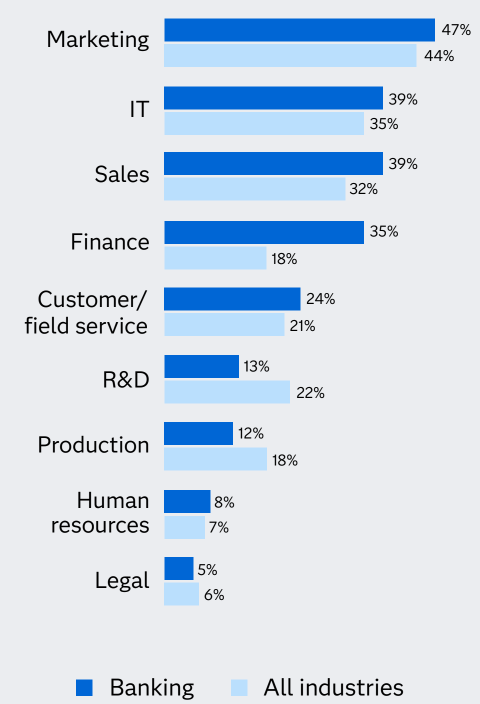
Of banks that have successfully implemented GenAI, 90% see improved employee satisfaction, 88% reported enhanced risk management and compliance, 85% noted an increase in operational efficiency, and 82% noticed an uptick in customer satisfaction.

The pace and scale of overall AI adoption are astounding – especially considering organizations in the banking industry typically approach transformation with great care. After all, this is a tightly regulated sector where security and precision are mission-critical. The expression "Trust is earned in drops and lost in buckets" is apt.

Value will not be born without consistent AI governance. In a highly regulated environment, governance across the entire data and AI life cycle, from data lineage through decision, is paramount. Trustworthy and responsible deployments, including a true understanding of the downstream consequences of AI, are critical to maintaining customer confidence.

> "The confidence of our customers and stakeholders is our most important asset. I think there is no industry, no other sector, where building and maintaining confidence is more relevant."
>
> **Stu Bradley**, Senior Vice President, Risk, Fraud and Compliance Solutions at SAS

Which departments in your organization are currently using GenAI?



Source: Your journey to a GenAI future: A strategic path to success in banking

Featured leaders

José Miguel Pessanha, Millennium BCP

José Miguel Pessanha is Millennium BCP's Chief Risk Officer. He is responsible for the risk and compliance offices, the rating division, the office for Regulatory and Supervision Monitoring and the Data Protection Office. He holds a master's degree in economics as well as a master's degree in operations research.

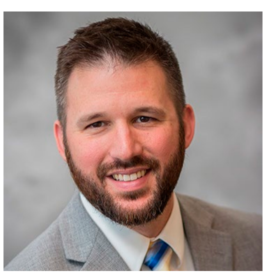
Founded in 1985, Millennium BCP is the largest private bank in Portugal with approximately 6.9 million customers worldwide.

Abraham M. Izquierdo, Banorte

Abraham is the Managing Director of Trading and Treasury Risks at Grupo Financiero Banorte. He oversees the balance sheet, oversight and modeling, including capital management, allocation, optimization, and surveillance (e.g., CET1, CAR, Stress Testing, and ICAAP).

He is an active member of several Banorte committees, including the Risk Committee, Regional Credit Committee, and Assets and Liabilities Committee. He also serves as the Secretary of the Derivatives Committee and President of the Investment Services Committee.

Featured in Forbes 2024 Global 2000 list of the World's Largest Companies, Banorte is one of the two largest commercial banks in Mexico, with a total consolidated assets of approximately $80 billion.



Andrew McCammack, Old National Bank

Andrew McCammack is Old National Bank's Data Science Officer. He has been with the bank for nearly a decade, helping the organization turn data into actionable intelligence.

Old National Bank is a $48.5 billion American regional bank. With 250 banking centers, it is the largest financial services bank holding company in Indiana and one of the top 30 banking companies in the US.

Andrea Cosentini, Intesa Sanpaolo

Andrea Cosentini is Intesa Sanpaolo's Head of Data Science & Responsible AI. He has a degree in physics and a PhD in mathematical and statistical methods for economics.

Intesa Sanpaolo is Italy's largest bank and the Intesa Sanpaolo Group is one of the top banking groups in Europe, serving 21.8 million customers, with a strategic international presence and a significant ESG commitment, a world-class position in Social Impact and strong focus on climate.

Fundamentals of a successful AI journey

We've distilled the advice from our four banking leaders into five key insights below. Keep reading to learn more.

***Key insight**: Create a strong business case while building confidence in measured steps.*

For the banking sector, the AI opportunity is not about a particular technology or algorithm. It is about recognizing the imperative of completely integrating AI with core business strategy. This has emerged as a real ethos among AI leaders in the sector as they continue to build long-term reliance and competitiveness. These companies recognize that AI has a role to play in reducing risk, improving the way new products and services are delivered and ensuring optimal efficiency regardless of how quickly a business grows and diversifies or how volatile a marketplace might be.

However, the need to deploy and scale new technology at pace must be weighed against the need to ensure that all stakeholders feel confident and vested in the journey. Among AI leaders in the banking sector, we see innovation leaders building consensus among the C-suite. These conversations focus on business value. They do not lead with details around a given platform, tool or model.

> "Innovation and AI must be recognized as a pillar of the strategy in the institution. It's important to ensure leadership understands the opportunity and sees the results. The very culture of the business needs to be evolving right in lockstep if you're going to be successful. So, leadership from the top is non-negotiable."
>
> – **Abraham M. Izquierdo**, Banorte

> "We are developing models to help us better prepare for adverse scenarios in the next five years. So, if an economic crisis arises, we can more effectively mitigate the effects of a rise in defaults."
>
> – **José Miguel Pessanha,** Millennium BCP Bank

> "We can make strategic decisions for the short term, medium term and long term based on facts, data and modeling. We're able to better pivot and respond directly to volatility or to complexity in markets. We're also able to have better long-term strategic discussions."
>
> – **Abraham M. Izquierdo**, Banorte

AI has a role to play in reducing risk, improving the way new products and services are delivered and ensuring optimal efficiency regardless of how quickly a business grows and diversifies or how volatile a marketplace might be.

***Key insight**: Successful transformation is characterized by a people-first approach – where leadership from the front is essential.*

The adoption of AI tools will continue to profoundly shape strategic decisions in the short and long term. However, this isn't a matter of leaving decisions in the hands of an AI tool. Far from it. It's clear from AI leaders in the banking sector that human thinking and problem-solving abilities remain indispensable. What is changing is how people at all levels approach their jobs and how they work with data and AI models. That means investing in skill building and culture is as important as investing in new tools and platforms.

AI leaders in the banking sector say that human thinking and problem-solving abilities remain indispensable.

Critical thinking skills will hold even more value in an AI-first world. For example, knowing when and how to work with AI and GenAI tools is fundamental. Some jobs might be better handled using classical statistical analysis. Also, people need to be aware of the possibility of bias and remain vigilant that AI systems are treating people in a fair and ethical way – particularly in scenarios where someone might be unfairly denied access to capital or credit.

As with any workplace cultural shift, leadership from the top is critical. For example, AI is helping senior decision-makers combine their experience and problem-solving abilities with rich data-led insights to shape decisions that fuel growth, minimize risk and fortify resiliency. This approach provides a powerful opportunity for leaders to share their learnings in an open, transparent way and, in turn, encourages their teams to learn that AI and cloud deployments must be multi-year, step-by-step and adaptable.

Leaders have a powerful opportunity to share their learnings in an open and transparent way and encourage their teams to learn AI and cloud.

"Data can provide insights around certain risk scenarios and can help us optimize how we pivot. However, AI tools cannot definitively answer key questions: How will I minimize the impacts of this for the bank? What will be the risk strategy of the bank afterwards? This comes down to the creative problem-solving abilities of leadership."

– **José Miguel Pessanha**, Millennium BCP Bank

"We incentivize data-driven decision-making by showcasing examples of how analytics have impacted the organization. By recognizing data-driven successes, we create a culture where data is valued as a strategic asset."

– **Andrea Cosentini**, Intesa Sanpaolo

With the C-suite actively embracing AI to improve decision-making, AI leaders in the banking space have implemented AI across all divisions and at all levels. For example:

- Deploying AI to augment fraud protection teams, empowering them to quickly detect anomalies in transaction data and keep customers' assets safe.
- By enhancing the customer experience with AI, Intesa Sanpaolo developed AI-powered chatbots that can provide 24/7 customer support and improve response times. Also, agents are able to focus on more complex customer needs, which makes their jobs even more impactful and rewarding.
- Improving the speed and accuracy of responses to regulatory bodies reduces the strain on compliance teams as they conduct the audits that are commonplace for financial institutions.

AI is also allowing banks to identify market opportunities while helping shape more inclusive and prosperous communities.

> "AI-driven customer analytics provide insights into customer needs and preferences, informing the development of products and services that address those demands. For example, by analyzing historical loan data, Intesa Sanpaolo might develop new lending models for previously underserved segments, promoting financial inclusion. This data-driven innovation can foster both social good and economic growth."
>
> – **Andrea Cosentini**, Intesa Sanpaolo

Now, as GenAI tools become mainstream in enterprises, there is a watershed opportunity to augment employees' abilities and liberate them from tedious, manual tasks. Empowering employees with GenAI tools ultimately allows them to focus more time and energy on meeting customers' needs and brings more value to the business.

Moreover, equipping employees to work effectively with GenAI holds the promise of making people's jobs more rewarding and enjoyable. This translates into a massive benefit for organizations looking to attract and retain the best talent.

> "You can have one client who has dozens of LLCs. All their tax stuff is put into one giant tax return that comes from their account. It could be 300 pages long. That takes a long time for a person to go through and pull out the pertinent information. But that's a very good use case for GenAI. Extracting that data, storing it in a database, pushing it to the edge for the users who can refine and finalize it."
>
> – **Andrew McCammack**, Old National Bank

Automating data extraction is a significant area of focus for AI leaders in the banking industry. It provides staff with the data they need – with little, if any, hassle.

What can banks learn about AI from AI leaders in another industry?

Founded in 1927, Georgia-Pacific is a global manufacturer that is on track to drive $100 million in potential value from its investments around AI and data. **Roshan Shah, VP of AI & Products, Georgia-Pacific** offers his perspective on the importance of prioritizing people in the AI journey:

“You can build the best models, devise the most compelling use cases, but, if people don’t embrace those tools, if they don’t embrace new ways of working, then you’re just not going to see the ROI you want.

You’ve got to strategize and plan to drive adoption. You’ve got to be very deliberate. It’s always a good idea to start small – trial deployment in one or two facilities. Make mistakes. That’s okay. Learn and adapt. Build confidence among your teams and then you’re in a strong place to scale. When you roll out to new geographies or divisions, people are going to see value faster. The new tools will more quickly become embedded in their daily workflows.

Also, as you prioritize use-case scenarios, think about the impact on employees. We were dealing with a talent drain in our facilities. That helped us focus on what use cases will allow workers to develop and take on higher-value, more rewarding work.

We’re now deploying GenAI technology that not only helps our floor operators spot potential issues but also offers step-by-step remediation guidance. This boosts operators’ efficacy and helps these employees upskill. There’s no better way to drive employee engagement and help ensure we’re cultivating the very talent.

Make people feel part of the journey. Don’t be afraid to market your success. We deployed an AI initiative focused on optimizing maintenance across 120 sites. It was super important to share that downtime results were reduced by 30%. That should be seen as a shared success.”

Steve Bakalar, VP of IT Digital Transformation at Georgia-Pacific, adds, “Getting your data estate in order doesn’t happen overnight. But believe me, this investment pays off in dividends. We’re expecting a nine-figure return from our current investments in AI, generative AI and machine learning.”

GenAI cybersecurity use cases emerged as another significant area of focus among AI leaders. Though the global cybersecurity workforce has seen record growth in recent years, a shortfall of 4 million cybersecurity professionals persists. This means many cybersecurity teams are stretched thin.

GenAI tools can help ease this strain, augmenting analysts in every aspect of their roles – identifying threats, mitigating breaches and reporting incidents. Organizations see both immediate and longer-term benefits. Teams can respond more quickly to present threats – and have more time and headspace for developing proactive security initiatives.

"Generative AI will play an important role for us in terms of strengthening our cybersecurity posture and fostering business continuity. GenAI tools are going to help us get faster and faster in identifying and responding to threats.

– **Abraham M. Izquierdo**, Banorte

Key insight: *Establish a strong technological foundation you can build on in the years to come.*

AI leaders in the financial services space emphasize the importance of walking before you run, because any organization wanting to maximize the value of its investments in AI and GenAI must first ensure that its data management systems are in good order. Establishing robust and scalable cloud-based platforms was a common thread among these leaders.

"We started to understand that people will use the same set of data for doing completely different things, from provisioning to capital calculations, liquidity calculations, interest rate risk calculations, things that are very complex. We saw the need to harmonize our data to service different needs."

– **José Miguel Pessanha**, Millennium BCP Bank

The leaders also reported the value of starting small with discrete AI use-case trials. These trials offer opportunities to learn and then apply those learnings as use cases are scaled. This builds the confidence of senior stakeholders and helps ensure faster ROI. The need for a measured and thoughtful digital transformation journey is even more important as AI – and GenAI, specifically – plays a bigger role in shaping overall strategy.

"AI and cloud deployments must be multi-year and step-by-step. For enterprises in the financial services space, I believe we have to take baby steps. Recognize your long-term ambition, but set short-term, precise goals. Commit to a pace that ensures you are maintaining compliance and building trust across senior stakeholders."

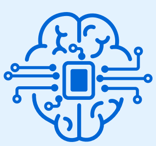
– **Abraham M. Izquierd**o, Banorte

"You have got to be thoughtful about how you democratize GenAI tools across the employee base. You've got to be confident about fast time to value. I think there's virtue in going for low-hanging fruit. Go for those use cases that are clear no-brainers: we can get this done and show real value."

– **Andrew McCammack**, Old National Bank

Leaders suggest starting small with discrete AI use case trials. Incremental success builds confidence.

A data and AI platform for greater productivity



Solving business challenges with AI requires a life cycle that spans from managing and cleaning data to building and optimizing models to deploying and automating insights. The productivity of data and AI teams navigating this life cycle is often challenged by time, complexity and resource requirements.

SAS® Viya® is an end-to-end platform designed to minimize complexity, reduce time to value and allow scalability to match customers' ambitions.

"Testing showed that an end-to-end data and AI life cycle can have more than four times greater productivity in SAS Viya than in competitive solutions. The productivity gains found in SAS Viya not only ease the burden placed on data and AI teams, but they can lead to significant cost savings."

– **Mitch Lewis**, Research Analyst, The Futurum Group

Key Insight: *To future-proof your business, empower your IT and developer teams with AI.*

For the organizations that are leading in their sector in terms of AI deployment, there's an increasing focus on building an organization's own capacity for innovation. The question becomes less about what technology to purchase and more about how best to leverage technology to augment the ingenuity of technology and developer teams.

Future-proofing your business: From procuring innovation to driving innovation.

"GenAI can fuel innovation by generating new ideas and solutions, helping us stay ahead of the competition and adapt to changing market conditions."

– **Andrea Cosentini**, Intesa Sanpaolo

A fundamental step in this journey is ensuring developers have a flexible and robust cloud platform that makes collaboration easy and allows people to call upon their core skills.

Eric Lacombe, Senior Manager of Technology Consulting, AI & Data at EY, offers a helpful perspective: "I see developer teams where some people want open source, and some want to use SAS. The right platform allows for flexibility, where individuals can leverage their expertise – without having to reskill – and still easily collaborate with their teammates."

Further, AI leaders in the banking sector see the benefit of AI tools augmenting developers in their everyday jobs. This isn't just about helping developers write more code – it's giving time and energy back to these professionals to focus on innovative initiatives designed to increase profitability and revenue.

A compelling example comes from Old National Bank. The organization saw the opportunity to eliminate the time-intensive and laborious process of loan application and management – a process traditionally underpinned by manual data capture onto Microsoft Excel sheets. The company moved to create a web-based data form that would fit right into agents' familiar workflows. AI tools helped write 90% of the tool's code – and the initiative took two months from conception to deployment.

"If you have a platform that, behind the scenes, everything was designed to work together, and then you put AI on top of that; it's easier for AI to deliver greater value, faster."

– **Andrew McCammack**, Old National Bank

"We built a data entry web form. It fits right into agents' familiar workflow. They pick the loan number. They type it in. It pre-populates a ton of data for them, and then they literally only enter information about the draw.

Then, when they enter the draw information, they hit submit. All the data is saved and centralized. Microsoft Excel sheets don't even exist anymore. There's a big uptick in productivity.

But it's so much more than that. People have time and headspace for work requiring deep analysis. This is work that brings more value back to the business and is much more rewarding and engaging for the worker."

\- **Andrew McCammack**, Old National Bank

***Key Insight**: There's power in community: Keep listening, keep learning.*

AI leaders in the banking sector have leadership that sees the power of continuously listening and learning. For executives, this means getting out of boardrooms and IT backrooms and speaking with employees and customers.

"We're looking to connect more with the academics and startups to understand what they are focusing on, but any kind of test case within a large enterprise is difficult."

\- **José Miguel Pessanha**, Millennium BCP Bank

EY's Eric Lacombe notes: "The most successful companies have innovation leaders who are curious about everything – not only the technical portion but the business side. These leaders invest time to understand the business, so they can better align the technology with the business."

The leaders we talked with are committed to staying attuned to developments outside of the organization and even outside of the banking sector. This is because the present-day pace of global innovation is unprecedented. All of the ways technology such as AI and GenAI can be used to increase revenue and profitability grows daily.

We also see AI leaders promoting a learn-it-all mentality among IT teams and data scientists. Intesa Sanpaolo notes that new data visualization tools can help a business explore trends and relationships within data sets that would otherwise go undetected.

A partner ecosystem can help facilitate community-building and supercharge learning.

"We encourage an environment where asking 'why' is valued. Data scientists can then design experiments and models to test hypotheses and validate (or disprove) assumptions, potentially revealing breakthrough solutions."

- **José Miguel Pessanha**, Millennium BCP Bank

In a world where leaders are incredibly time-poor, partnering with technology players who bring broader ecosystem partners can help facilitate community-building and supercharge learning.

"We've started pursuing a strategy where we are building a whole suite of light applications, where AI is used to build the source code to run those applications.

This is an idea we really took from the SAS Innovate conference. There was a session exploring low code/no code. We were introduced to this idea that you still need a full code base.

If you want to take an application and put it in production, you need a full code base. Period. Who's going to write the code? You can build a really light application using low code/no code.

But if you want to scale that and roll it out to the enterprise, you need a full code base, and GenAI is exceptionally helpful in developing a full code base on those things. With this insight, we are driving a new wave of innovation."

- **Andrew McCammack**, Old National Bank

One thing is certain: AI continues to evolve, and banks are evolving to benefit from the advancements in AI technology, from **generative AI** today, to **quantum AI** and **AI agents** tomorrow. These leaders demonstrate the potential within the industry to learn from each other for continued success.

Learn more

Regardless of where your organization is with its AI transformation, having the right partners by your side can help you accelerate and scale AI deployments with confidence.

For leaders in the banking sector looking to learn more about the AI opportunity, please visit: ***Your journey to a GenAI future: A strategic path to success in banking.***

For more information, please visit SAS Banking Analytics.

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