

Banking & Finance

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dossier

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Banking Intelligence Solutions



To optimise corporate information accessibility and management, SAS created the Enterprise Intelligence Platform (EIP), an integrated, intelligent decision-making platform offering a 360° view of the company's activity.

Applications specific for the banking and insurance sector can be plugged into this technological platform (EIP). These applications are organised in four major areas: Customer Intelligence, Operational Intelligence, Financial Intelligence and Risk Intelligence.



This open, flexible platform helps financial institutions to reduce the complexity and redundancy of decision-support systems, to improve cost control and to implement real performance management.



SAS: 28 years of continuous growth

In 2004, SAS, the world's leader in business intelligence and analytical intelligence, had a turnover of USD 1.53 billion worldwide, 15% higher than in 2003. For the 28th consecutive year, SAS grew and made a profit. The solutions are used at about 40,000 client sites worldwide. Of the first 100 companies mentioned in the Fortune 500, 97% are clients of SAS.

Global turnover is divided as follows: 46% for the Americas, 44% for EMEA (Europe, Middle East and Africa) and 10% for Asia-Pacific. The growth sectors are banking/finance (+20%), the pharmaceutical industry (+20%), the public sector (+30%), telecommunications (+18%), energy (+18%) and retail (+19%).

This performance is due to the launch of the SAS®9 Enterprise Intelligence Platform and to the provision of new business solutions based on this integrated decision-support platform. Sales of business solutions impacting customer knowledge, such as campaign management and automation, have doubled, especially in competitive sectors such as finance, telecoms and retail. Sales of solutions improving management and performance (such as Activity-Based Management, Corporate Performance Management and applications associated with financial transparency) rose by 30% compared with 2003, as did IT management solutions. Risk management solutions have experienced strong growth over the past few years, and still grew 20% last year.

A consolidated platform

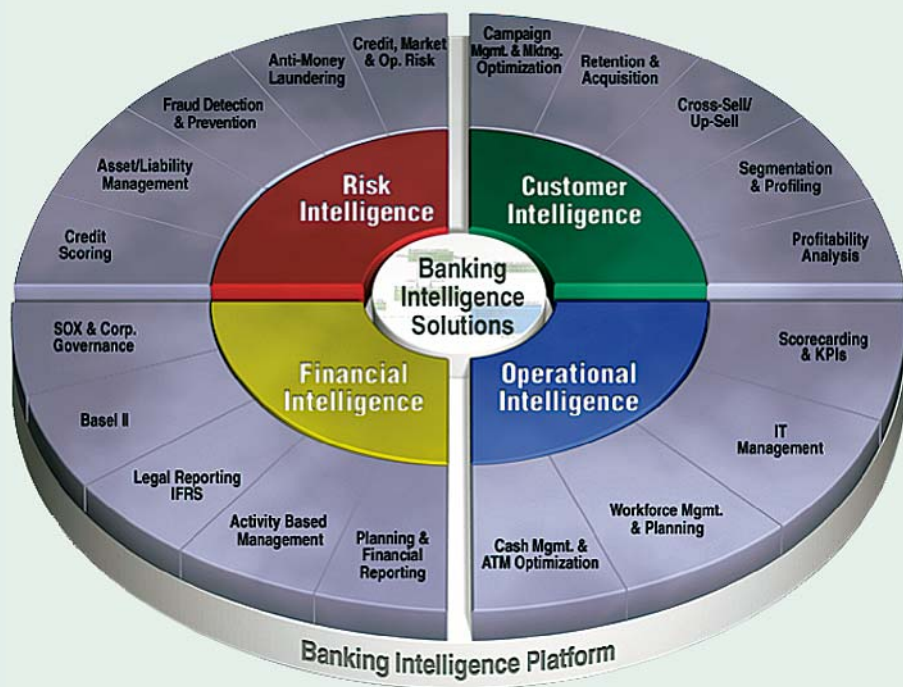
2004 was a turning point for SAS, with the large-scale rollout of SAS®9. This platform satisfies genuine market demand for inte-

gration and optimisation, as confirmed by the success of sales.

“Almost 30 years ago SAS started selling tools like many other players in the IT market, explains Stéphanie Karamalakova, Sales Manager Financial Services. ‘With time, our offering broadened. We began to package our tools and target them to marketing and risk management for instance. Our tools turned into very targeted, analytical business solutions. Today, we are on the third wave: the one of the integrated platforms. This one clearly reflects the long-term strategy implemented by SAS. The market is beginning to realise they could reach huge gains improving integration, consolidation and standardising the way of providing strategic and decision-supporting information. SAS runs on all types of operating systems and platforms, and can access all types of data, integrate it, and consolidate it in a single, open and flexible platform.’” All the functionalities of a corporate native-

ly integrated decision-support platform (Extraction, transformation and loading, data quality, data migration, data federation, synchronisation, storage, powerful analytical functionalities, data usability in a variety of environments like business intelligence) provide functional decision-makers with high value-added knowledge based on unique, reliable information and enables IT decision-makers to reduce the Total Cost of Ownership (TCO). A recent study carried out by the highly respected Oxford Said Business School confirmed the clear TCO benefits of the SAS platform compared to the majority of its competitors.

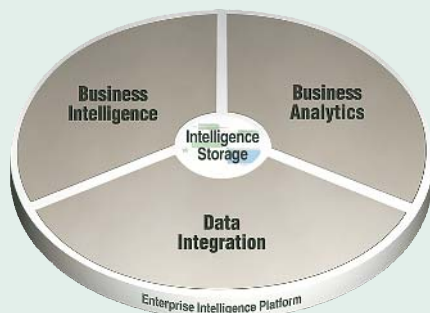
This platform's success demonstrates that SAS really understands the market's needs. The best-of-breed approach, which consists of placing side-by-side components from various suppliers, has become outmoded. It no longer satisfies the goals of Information System Departments, which are facing increasingly demanding constraints to



Enterprise intelligence platform

reduce costs, optimise internal resources and improve productivity and service quality. By definition, best-of-breed entails major risks concerning continuity (merger of suppliers, no evolution of certain products), interface problems (upgrading of systems at different paces), high maintenance costs (multiple contracts), internal resource management problems (multiple training, non-interchangeable expertise, and pressure and blocking points). An Enterprise Intelligence Platform on the other hand enables true information systems management and control of decision-support projects: native integrated components, co-ordinated development of different solutions, much faster implementation, and TCO reduction.

Another important strategic benefit to SAS customers is the availability of industry-specific solutions that offer a unique combination of business expertise and technology: Banking Intelligence Solutions (banking and finance), Insurance Intelligence Solutions (insurance), Retail Intelligence Solutions (distribution), Telecommunications Intelligence Solutions (telecoms) etc. This approach provides senior executives and operational departments all of the decision-making applications they need, based on a single platform providing a 360° vision of the company's activity.



As we have stressed, the Enterprise Intelligent Platform provides genuine governing of the information system and full control of the decision-making proces. Through this open, flexible platform, Finance customers enjoy universal sharing of knowledge in their organisations, high added value, improved return on investment and a serious edge over their competitors. In addition, SAS fits into to the client's environment, uses and optimises existing resources.



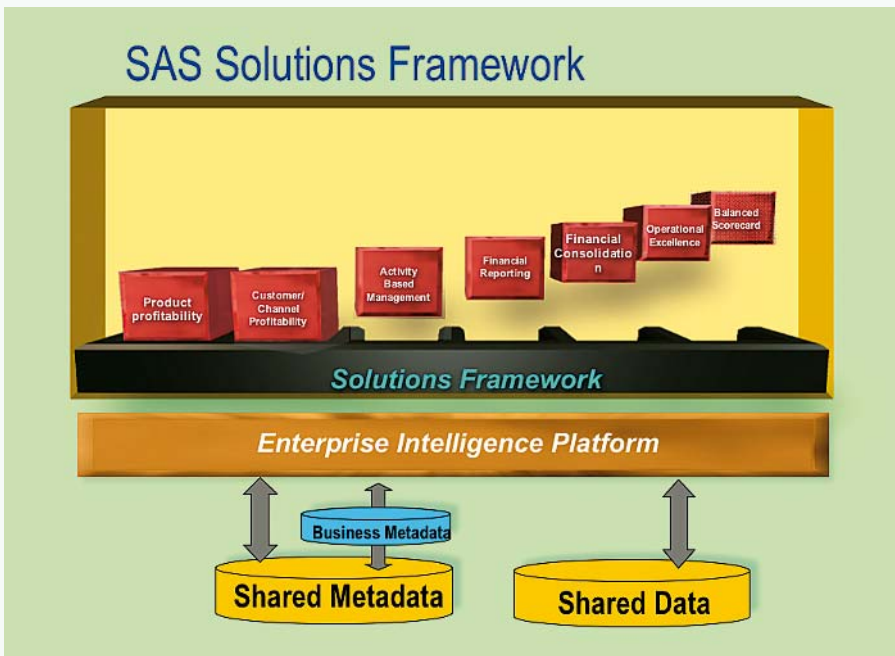
▲ Stéphanie Karamalakova,
Sales Manager Financial Services

SAS solutions and the SAS platform can be used in many different departments or areas: IT departments, backend, capital markets, corporate governance, retail banking, sales, marketing, SMEs and wholesale banking.

IT department: resolve complexity

Different studies show that the largest investments made by banks and financial institutions are made to improve the back office and distribution channels. A great deal of attention is devoted to the outsourcing of IT functions, in order to be able to refocus on the core business. The support of the various networks and the integration of architectures throughout the company lead to demand from business to prove or clearly identify the value provided by IT. To achieve this requires objective measures. It is necessary to organise all processes and activities of the IT department based on systems set up to monitor and collect measurements, prepare clear and transparent reporting, carry out analy-

ses, identify redundancies and to more effectively plan available resources. "At SAS, we have a series of solutions that are part of the Operational Intelligence suite, such as IT Resource Management, which covers IT governance issues", says Stéphanie Karamalakova. "We have developed a framework that helps financial institutions to establish good proactive management of the IT department and IT governance. The concept of service becomes the cornerstone of the system. Around this concept we develop several aspects, such as service costs, their various components, collecting and reporting on the various application operation measures, as well as managing contractual issues between business and IT, and service-level agreements (SLM) while publishing them clearly in Web format (for example, on a portal). At any given time it is possible to check the level of service, the various components and the cost of these services in order to ensure constant management of the user's needs and the resources associated with this level of service. This also makes it possible to create benchmarks,



The SAS architecture provided includes logical and physical data models with a series of predefined ETL (Extraction, Transformation and Load) processes: i.e. data access, processing and transformation. These processes are predefined. If the storage component is present, it may be adapted to the user's database. Plus, there is the application component, which is also predefined, and a reporting framework. These are often interfaces via the Web, with a series of reports, analysis, and graphics that are predefined based on best practices.

obtain transparency and to maximise the assumption of responsibility in the relationship between business and IT.

Our product range is complete and covers all aspects of IT governance. In addition to managing system performance, it can be used for trend analyses, capacity planning, performance reporting, as well as service-level management, activity-based cost management and financial management."

Back-end and capital markets: ready for regulatory requirements

The various aspects of compliance and risk management are key issues. SAS has devoted a great deal of attention to Basle II, IFRS and SOX reporting requirements. "The problem of compliance is also a problem of data. Its impact on companies is not uniform, because it depends on how the financial institution will equip itself to handle it and the structure that will be created to support the regulatory changes", says Stéphanie Karamalakova. "It is not a coincidence that there is a data warehousing aspect, for example, because this involves collecting data originating from different sources and putting it in a consolidated form, consistent with regulatory

requirements. SAS helps with this process by providing a common data platform to support various types of reporting, as well as pure risk management issues, with highly advanced calculations and mathematical and statistical functions. Of course SAS also supports pure management, security, automation and other issues. In conclusion, an intelligence platform is ideal for transforming the regulatory challenge from a cost challenge into a key competitive advantage for the financial institution."

Traditionally, until now, some covered market risk management, others covered credit, and still others covered operating risks. All issues involving IFRS reporting were often

▼ *Stefan De Lombaert,*
Practice Leader Risk Intelligence

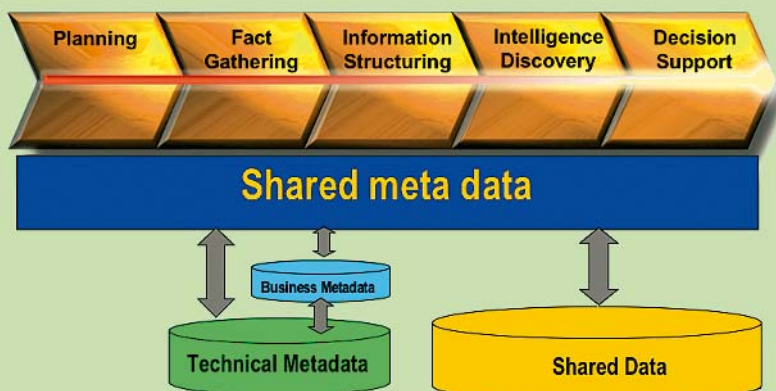


guided by the finance department's managers and each person worked in his 'silo'. But after reflection and after having analysed the data, we cannot help but conclude that these areas overlap a great deal. This means that it is especially interesting to reuse a portion of these data and to consolidate the various areas. Naturally, in addition to the data, there are areas of expertise and functions that may be reused, sometimes differently. This explains the idea of opting for a company level risk management platform and addressing corporate risk governance in the same way as IT governance.

Banks have an interest in having a single interface with their risk system", says Stephan De Lombaert, Practice Leader Risk Intelligence. "Professionals are increasingly using the risk scorecard, where the manager who is in charge of the entire risk management portion has a dashboard indicating the current status of the use in capital, whether for market risk, credit risk, operational risk, etc. A dashboard enabling him to see changes over time, to identify the sensitive points... with the possibility of carrying out the drill down and ending up with the typical systems that manage each type of risk. This change is becoming possible because there is a change of men- >

The Enterprise Intelligence Platform

An integrated end to end implementation of the decision process
All components share meta data and data



tality at banks. The various risk themes are no longer managed in strongholds. There is a need for exchanges. Banks know that, for example, using a risk scorecard requires a unified methodology between the different ways of measuring this risk. Very often, this unified methodology is based on simulations.

Most banks are convinced that Basle II is not a final point, but is rather an interim stage between a fairly simple system (Basle I) and a very sophisticated system (what they believe will be a future Basle III), and that the latter will enable them to get the most out of their systems and their models.”

SAS’ solutions are now ready. BIS, Banking Intelligence Solution, the cornerstone of the SAS platform, includes servicing on all of the solutions. “This is because it is an evolving framework: we began with several solutions, priorities identified on the market and, over time, we have added to and broadened the models”, says Stéphanie Karamalakova. “Everything works on SAS technology and stays very open, very flexible and very effective.”

Corporate management: cost control

The areas of action are ERP extension, CRM analysis, profitability analysis, and channel management, because the multi-channel aspect is omnipresent in banking.

This explains the importance of having highly advanced solutions that reflect data and information diversity, as well as the need to carry out very exhaustive analytical exercises. It is no longer enough to have a good data warehouse with all of the customer data and to engage in reporting: nowadays, it is necessary to use predictive analyses, data mining, etc., to uncover the best ways to develop strategy based on actual information and client behaviour trends. In addition, we should not forget the importance of being innovative, because this is what will result in a competitive advantage.

“SAS has also devoted a great deal of attention to marketing and to customer data management”, says Stéphanie Karamalakova. “In the area of Customer Intelligence, SAS has a broad line of products that simultaneously cover the aspects of the single vision of the client - a 360° vision.

Segmentation and profiling, profitability analysis, cross-selling and up-selling are all specific applications. Another aspect is interdisciplinarity, because addressing customer profitability analysis requires a link with credit scoring information, for example. This means that it is sometimes necessary to combine very different systems at the outset, in order to make the right decisions.

This brings us to Marketing Automation products, which are designed to cover all of the needs of the various participants of a marketing department and enable them to manage, optimally, the process of communicating with the client, managing campaigns using the Campaign Management module, etc. It is necessary to integrate operational planning and campaign management, retention and acquisition, costs, etc., in short, everything needed nowadays by a marketing department -including the most advanced statistical tools- to support its strategy and maximise its resources.”

Retail banking and sales: interaction with the customer

Interaction Management: this is also a question of optimisation, albeit from a purely communications point of view, or how to choose interaction communication, through what channel, and at what time? This is more complex than the campaign per say, as it may entail the different relationships that the institution has with a customer, including on a one-to-one basis.

“This Customer Intelligence product has already been tested with the market’s specialists”, says Stéphanie Karamalakova. “We already have our first references. This vision reflects market demand and maturity. Here too, it is very easy to establish links with data resulting from scoring or from the financial system, etc. For Operational Intelligence, which is a huge area, we address issues such as the Automation of ATMs with highly advanced forecasting systems, payments and smart cards.”

The employees of financial institutions play a key role in customer management. It is not possible to obtain all the data or all the information if the customer is being served by a person who is not motivated, or by someone who has not had adequate training: the face-to-face relationship is once again becoming increasingly important in marketing strategies.

“SAS develops solutions that are also targeted to internal customers: employees. These solutions are based on the same principles. The idea is to collect all useful information on the employee’s career, and this information may come from various management and personnel operating systems. This enables the HR manager to create career development strategies and analyse and report, thereby allowing him to proactively manage employees based on the company’s strategic goals. This is another example of the importance of linking different information. The more we base our efforts on the same basic concepts used in the various departments, the easier it is to adopt management methods coordinated at all levels and aligned with the institution’s strategy. Thus, the transition to SAS’ Strategic Performance Management is logical. It covers both the management of

performance at the company level and at the company’s various departments. This solution makes it possible to implement management systems, such as the Balanced Scorecard. The solution stays open and flexible. These are dashboards with views that may combine qualitative and quantitative data. The same environment may have data from market analyses, customer satisfaction, etc., which may be partially exploited, with more financial components. Or, it may involve highly advanced dashboards based on purely financial data or highly objective quantitative measurements through a company portal”.

SME and wholesale banking: exploiting new areas

SMEs and wholesale banking clients are increasingly interested in corporate level applications. The goal is to combine the various departments as much as possible.

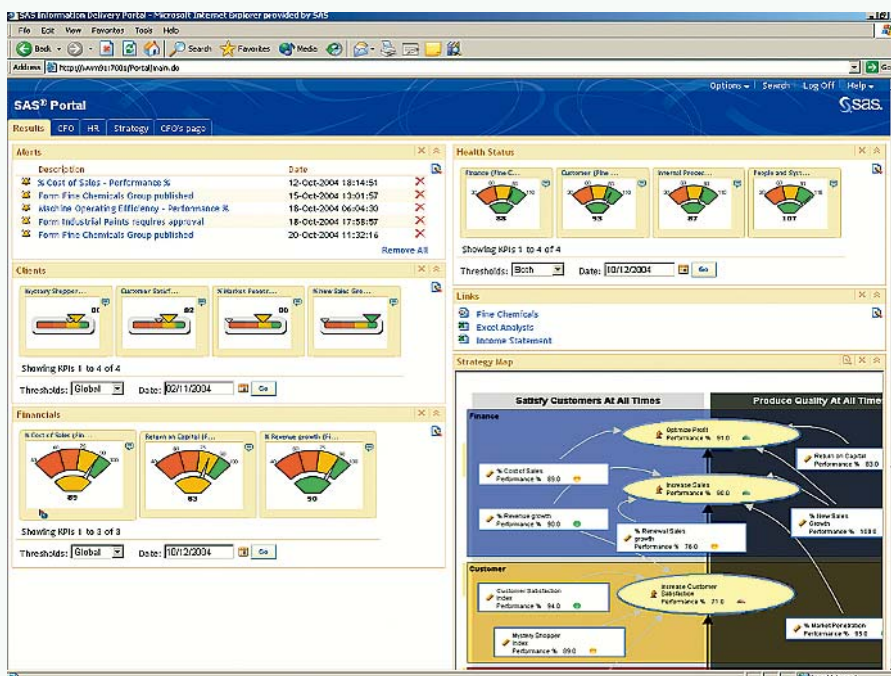
This involves operational intelligence and more explicit mention of a financial intelligence component, with all of the components that relate to financial reporting, as well as to budgeting, planning, activity-based costing etc.

Risk Intelligence: fraud and combating money laundering

At SAS, fraud and combating money laundering are included under Risk Intelligence. What exactly does Operational Risk consist of? It is used to quantify all risks that are not directly related to credit and market risks.

“At SAS, we develop analytical products to reveal fraud as quickly as possible and to identify certain internal or external fraudulent behaviours”, explains Stefan De Lombaert. “Not with simple queries and perhaps discovering a case somewhat by chance. Instead, we include predictive elements and profiling, in order, for example, to steer internal auditors towards suspicious cases, but with a probability of really having a case of fraud. The same is true for external fraud and combating money laundering. SAS has a product line that has been developed with the co-operation of several large American banks and for which it has acquired about a dozen clients in less than two years. We are sure that with our generic solutions, a bank need only make a single investment in software, training and IT personnel to support the system and to resolve any problems that might arise. It must be noted that if we are more general in our approach, it is because we offer a toolbox that is open to users. Users may adopt the algorithms that we provide, or they may modify them without necessarily calling on SAS. The client itself may actually adapt or extend the use to other types. This added value is considerable.”

Today, the SAS solution satisfies all Basle II requirements, for example. “But we are already able to go even further. By constantly monitoring and listening to the market, SAS and its specialists are anticipating and preparing actively for the future.”



FORTIS BANK MARKETING CAMPAIGNS GAIN IN EFFICIENCY

Fortis Bank marketing campaigns gain in efficiency: SAS Enterprise Miner reveals hidden patterns.

If a bank is to remain competitive and make sound strategic decisions, then accurately identifying customer reaction to marketing campaigns is absolutely essential. Fortis owned a rich – but relatively untapped – customer database. The bank’s recent adoption of data mining technology has allowed them to substantially increase the successful hit ratio of marketing campaigns.

Which customers are most likely to purchase a new investment product? How will the market react to a drop in interest rates? Which client profile shows the highest risk of not being able to pay back a loan? These are just a few of the questions Fortis Bank faces every day. And perfect examples of the issues to which SAS data mining technology provides a comprehensive answer.

“SAS Enterprise gave us a greater understanding of customer motivations”, says Joseph de Brouwer, Commercial Analysis Manager at Fortis Bank. “We can now fully exploit the data regarding our customer’ buying patterns and behavior.”

"We chose to work with SAS primarily because of their technology assets, extensive R&D capability and industry leadership, and their ability to support us across the globe. We are impressed with their understanding of our business goals and their flexibility to meet our demanding requirements."

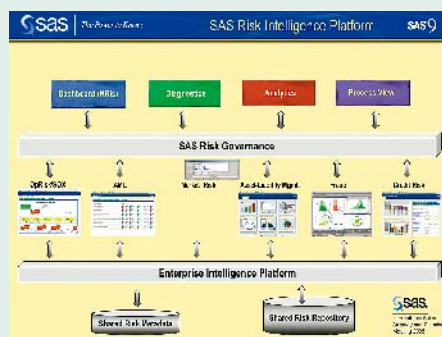
Bobby Mehta, CEO, HSBC NA Holdings Inc.

UNVEILING THE PRESENT TO SHAPE THE FUTURE: SAS ACTIVITY-BASED MANAGEMENT REVEALS THE EXACT PRICE OF EACH BUSINESS PROCESS

Cetrel wanted to evaluate the effect on their numbers of introducing a new product; even before developing it. To remain the Luxembourg leader in end-to-end solutions for electronic payments, Cetrel needed to know the impact of entering a new market beforehand. Among other things, they wanted to optimize their resource planning. Cetrel’s decision to introduce SAS Activity-Based Management gave them the poser to know. It was a decision that in the end made good numbers outstanding.

“SAS Activity-Based Management gave us the insight we needed to optimize our organisation”, explains Gérald Briclot, Chief Financial Officer at Cetrel. “It introduced the culture of numbers and rates in our company. And the introduction of ABC was only the starting point. It gave us the leverage to rationalize other aspects in our company as well. Management will become learner and decisions will be taken based on knowledge and hard data, not conjecture.

We realized a substantial savings just by selecting SAS software and the right consultancy. It has already paid back in full in less than a year. We are now re-evaluating the ABC model and it looks like adding a few minor adaptations will results in even better results.”



CLOSER MONITORING OF ASSET PORTFOLIOS: SAS HELPS BANK TO IMPROVE MANAGEMENT OF SECURITIES

Controlling risk is the primary challenge for every institution offering private banking services. A top priority at Dexia BIL is to continuously fine-tune risk management. Doing so helps this Luxembourg-based bank deliver the return that clients expect on their investment. SAS plays a double role in meeting this objective: it helps compound strong portfolios and it closely monitors the evolution of asset performance. The application has helped the bank to achieve greater control over both portfolio risks and returns.

In private banking, providing an attractive asset portfolio is absolutely essential for retaining clients. This sophisticated clientele looks for portfolios that provide the return on investment they expect, without any unwelcome surprises. At Dexia Banque Internationale à Luxembourg (BIL), that is exactly what SAS helps them achieve. It assists investment experts in putting together attractive portfolios and supports client advisors by monitoring performance evolutions.

“Using SAS, business experts can better simulate market evolutions and fine-tune portfolio composition”, concludes Bernard Herman, Managing Director for Operations and Markets at Dexia BIL.

"SAS moves with the times, remains competitive and is constantly bringing new products to market, all of which makes SAS a reliable partner" Lloyds TSB

AXA FINANCIAL: ONE OF THE FINALISTS OF THE GARTNER BI EXCELLENCE AWARDS

A successful business intelligence initiative by financial services provider AXA Financial initially focused on tapping data from multiple sources to improve customer service and profitability. Along the way, it dramatically increased the productivity of its financial advisors. AXA's approach and success with its BI implementation helped make the company one of three finalists for the 2005 Gartner BI Excellence Award.

Business value is the measure of success of a business intelligence initiative. AXA Financial's BI initiative succeeded because it identified the largest payoffs that could be achieved with basic BI — in this case, putting low-tech booklets with information specifically tailored to individual needs into the hands of its financial advisors. The data collected enabled AXA to dramatically increase its business with established customers, which convinced AXA's executive team and most of its employees of BI's value.

The BI initiative began in July 2001. To educate the financial sales professionals on the relevance of the customer data, the marketing department developed the "Mining for Diamonds" marketing and training program to explain how to best use that information.

Mining for Diamonds nets approximately \$200 million in incremental assets per premium per year. The estimated ROI for imple-

menting the project exceeds 1,700 percent. In addition, client cross-sell rates have increased for three straight years.

According to sales tracking, which is completed for each advisor who participates in the Mining for Diamonds program, two-thirds of associates have either had an increase in sales or an increase in new business value from established clients. Advisors with a rise in sales after the campaign's launch saw an increase of 40 percent in sales to established clients and an increase of 100 percent per advisor in new business value to established clients.

The BI data-mining efforts and the Mining for Diamonds program have also served as catalysts for two other successful initiatives:

- The Client Assignment System reduced the average time to complete reassignments from 70 days to less than 10 days. Cancellation rates post-advisor-termination have declined by approximately 10 percent.
- AXA has developed a new position, the client relations manager, which focuses on customer satisfaction. Based on early results, sales rates to targeted customers are up 100 percent for the branches that have a client relations manager, compared with those branches that do not.

(Source: Gartner)



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