



Chartis RiskTech 100 – SAS Highlights

2008





About Chartis Research

Chartis Research is the leading provider of research and analysis on the global market for risk technology. Our goal is to support enterprises as they drive business performance through better risk management, corporate governance and compliance. We help clients make informed technology and business decisions by providing in-depth analysis and actionable advice on virtually all aspects of risk technology.

This includes technology for:

- Operational Risk Management
- Credit Risk Management
- Market Risk Management
- Asset & Liability Management
- Fraud and Anti-Money Laundering Prevention and Detection
- Basel II, Sarbanes-Oxley, Solvency 2

Chartis Research has a total focus on Risk Technology giving it significant advantage over generic market analysts.

Chartis Research has brought together a leading team of analysts and advisors from the risk management and financial services industries. This team has hands-on experience of implementing and developing risk management systems and programmes for Fortune 500 firms and leading consulting houses.

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Chartis RiskTech 100 – 2008

SAS Highlights

SAS is an established leader in analytics and business intelligence software with revenues of over \$2.15bn. It has been in the risk management space since the late 90s. However, its leadership position was fuelled by demand for Basel II solutions starting in 2003-2004. By 2008 SAS had more than 200 financial institutions worldwide relying on SAS ERM (Enterprise Risk Management) solutions covering such areas as credit risk, operational risk, fraud, anti-money laundering, Basel II and Solvency II.

The company leads its charge into the enterprise risk management market with its two leading solutions:

1. Credit Risk Management for Banking Solution . This solution is packaged with the SAS Credit scoring application, making it particularly relevant for retail and consumer banking customers. SAS' other key strength is its superior data management and risk analytics capabilities, providing the ability to offer a true end-to-end solution. See Figure 1 for SAS' position on Chartis' Credit Risk Competitive Landscape.
2. SAS has also established a leadership position in the operational risk management (ORM) market. The company entered the ORM arena by acquiring OpRisk Analytics in 2003. It has capitalised on that investment by enhancing the product and incorporating it in its core vertical/industry technology stacks. A notable development in this area is the establishment of a loss-data consortium for the insurance industry (ORIC). This initiative is in partnership with the ABI (Association of British Insurers) and has an international membership of over 30 insurance companies. See Figure 2 for SAS's position on Chartis' Operational Risk Competitive Landscape.

Another notable development is the launch of a real-time card fraud detection system, providing an integrated platform for real-time analytics and workflow management. This initiative was undertaken in partnership with HSBC and a number of other banks are now starting to adopt the same platform.

More recently SAS has entered the Solvency II technology space and is aiming to develop specific modules on top of its existing insurance industry data management and business intelligence platform.

RiskTech 100 Rankings

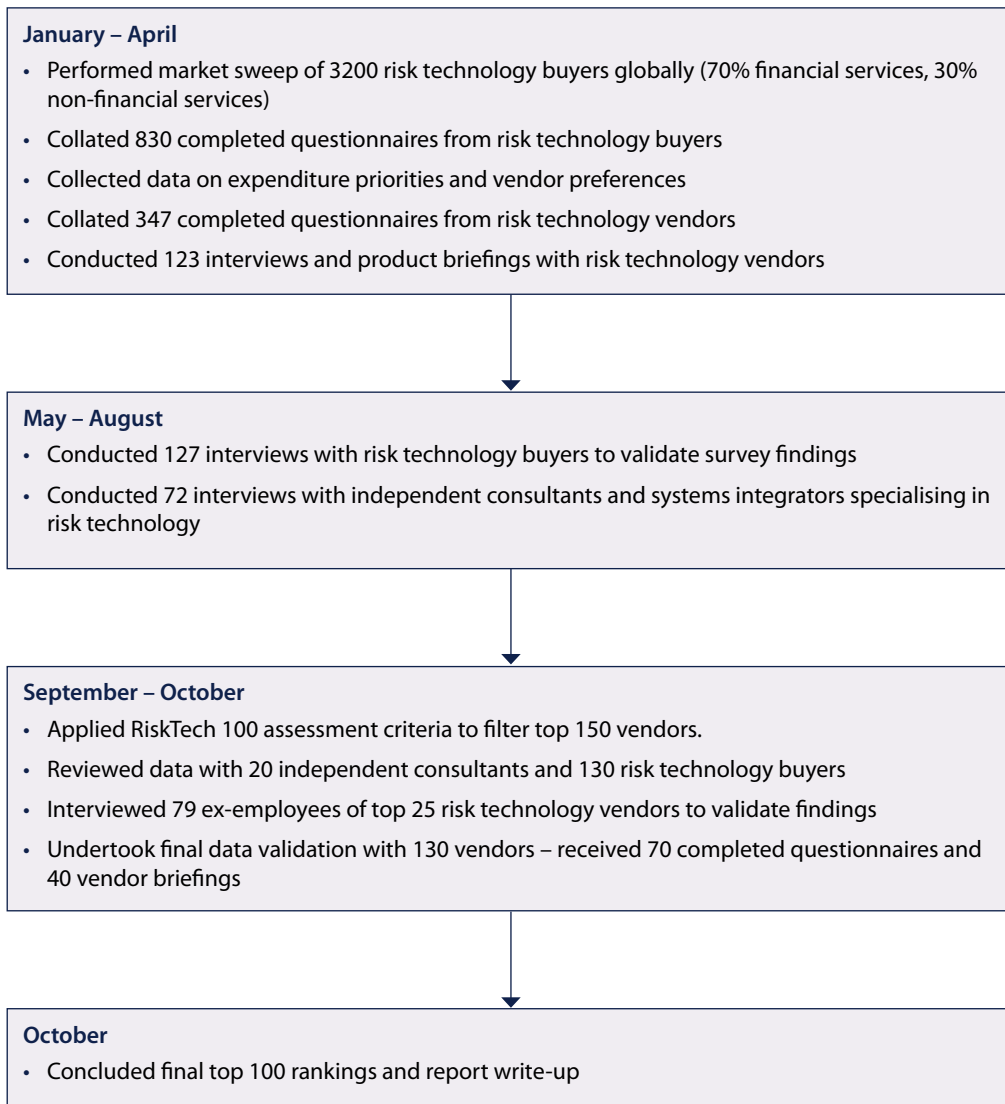
The RiskTech 100 rankings are now recognised globally as the most comprehensive and prestigious study of the top technology firms active in the risk management market. The top technology firms were selected and ranked on the basis of a comprehensive sweep of the global market for risk management systems, and the application of a detailed assessment methodology.

The RiskTech 100 firms range from "tier 1" enterprise software houses such as SAS, to specialised boutiques. The common factor is that they all sell licensable software products and are recognised as being among the best in their chosen sector or risk class.

The findings and analyses in Chartis' RiskTech 100 report reflect our analysts' considered opinions and research of market trends, participants, expenditure patterns and best practice. The data collection for this study started in January 2008 and the analysis has been validated through several phases of independent verification. This study is the most comprehensive of its kind and is a core element of Chartis' annual research cycle.



Figure 1: RiskTech 100 Research Methodology





RiskTech 100 Assessment Criteria

The RiskTech 100 assessment criteria comprises of six equally weighted categories:

- Functionality
- Core technology
- Organisational strength
- Customer satisfaction
- Market presence
- Innovation

Within each category, there are a number of sub-criteria that have been weighted according to the level of importance that end-users and system integrators attached to these aspects of risk technology provision.

The table below describes the RiskTech 100 assessment criteria:

Table 1: RiskTech 100 Assessment Criteria

Sub-criteria weightings are shown in brackets.

<p>Functionality</p>	<ul style="list-style-type: none"> • Depth of functionality (0.5) – the level of sophistication and detailed features in the software product. Aspects assessed include: innovative functionality, practical relevance of features, user-friendliness, flexibility and embedded intellectual property. High scores are given to those firms who had achieved an appropriate balance between sophistication and user-friendliness. Also functionality, linking risk to performance, is given a positive score. • Breadth of functionality (0.5) – the spectrum of risks covered as part of an enterprise risk management solution. The spectrum of risks under consideration includes: treasury risk management, trading risk, market risk, credit risk, operational risk, energy risk, business/strategic risk, actuarial risk, asset-liability risk, financial crime and compliance. Front-office (customer-facing) and middle-back office (compliance, supervisory and governance) risk management systems are also considered. High scores are given to those firms achieving (or approaching) integrated risk management – breaking the silos between different risk management functions.
<p>Core technology</p>	<ul style="list-style-type: none"> • Data management (0.35) – enterprise risk management systems need to interact with other systems and handle large volumes of data. Data quality is often cited as a critical success factor. Ease of data access, data integration data storage and data movement capabilities are all important factors. • Risk analytics (0.35) – the computational power of the core system, the ability to analyse large amounts of data in a timely manner, and the ability to improve analytical performance were all important factors. • Reporting (0.30) – the ability to surface information in a timely manner. The quality and flexibility of reporting tools and ease of use are important for all risk management systems.



Organisational strength	<ul style="list-style-type: none"> • Sales execution (0.25) – size and quality of sales force, sales distribution channels, global presence, focus on risk management, messaging and positioning are all important factors. • Financial strength /stability (0.25) – revenue growth, profitability, sustainability and financial backing (ratio of licence to consulting revenues is key to business scalability). • Implementation and support (0.25) – size and quality of implementation team, approach to software implementation, post-sales support, training and partnerships are important factors. • Thought-leadership (0.25) – business insight/understanding, new thinking, best-practice and intellectual rigour are considered important by end-users.
Customer satisfaction	<ul style="list-style-type: none"> • Value-for-money (0.4) – price to functionality ratio, total cost of ownership versus licence price. • After sales service and support (0.4) – ease of software implementation, level of support, quality of training. • Product updates (0.2) – frequency of updates, keeping pace with best-practice and regulatory changes.
Market presence	<ul style="list-style-type: none"> • Market penetration (0.4) – number of customers in chosen markets, rate of growth relative to sector growth rate. • Brand awareness and reputation (0.3) – target markets’ familiarity with the firm and its products, buyers understanding of the firm’s differentiators and strengths/weaknesses. • Market potential (0.3) – ability to leverage current market position and expand horizontally (with new offerings) or vertically (into new sectors).
Innovation	<ul style="list-style-type: none"> • New product development (0.4) – new ideas, functionality and technologies to improve risk management for target customers. Chartis assesses new products not in absolute terms, but in relation to the vendor’s closest competitors. • Exploitation (0.4) – developing new products is only the first step in generating success. The speed to market, positioning of the product and translation to incremental revenues are critical success factors. • New business models (0.2) – Innovation is not limited to the product dimension. Some risk technology vendors are also actively working towards new business models for generating profitable growth.



SAS Category Winner Awards

SAS has been selected as winner in two RiskTech 100 categories.



Core Technology – data collated from Chartis’ end-user surveys and interviews as well as direct field-level feedback from independent systems integrators and consultants has consistently revealed that SAS’ core technology capabilities are a key reason for its recent success in the risk technology space. The unique combination of SAS’ data integration, data quality management, data storage, advanced analytics and business intelligence capabilities, all within a single integrated platform, is a major benefit for end-users. This capability is particularly relevant in the current economic climate where IT and risk management departments are looking to reduce complexity and cost.



Operational Risk & GRC – The current SAS offering is unique in bringing together “best-in-class” qualitative and quantitative risk assessment and reporting. SAS’ closest competitors have strengths in only one of these dimensions. Furthermore, in its latest product releases, SAS has enhanced the workflow, issues & actions planning and loss data reporting modules. Also, SAS’ database of externally reported losses (SAS Global Data) and its strategic involvement in the insurance industry loss-data consortium (ORIC) are key differentiators.



SAS Rankings per Category

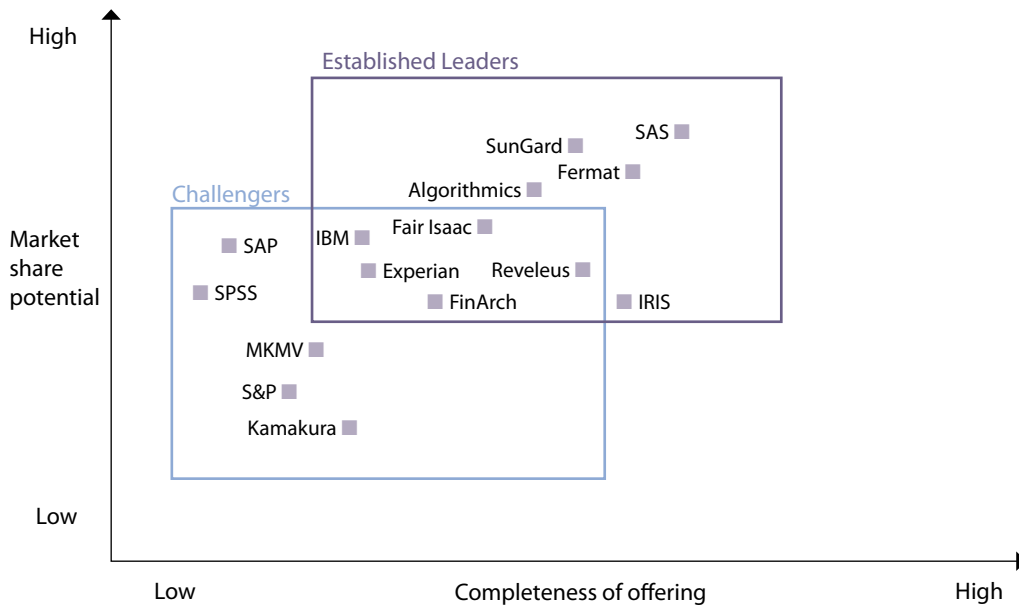
Assessment Category	SAS Ranking	Explanation
Functionality	3rd	<p>Depth of Functionality: SAS has “best-in-class” functionality in its credit risk and operational risk management software applications. Both offerings include significant intellectual property with regards to embedded methodologies, data models and compliance features (see Figure 1 and Figure 2 below). SAS has used these two offerings to establish a leadership position in the Basel II space. In addition, recent developments in its anti-money laundering and real-time card fraud solutions have positioned it as a credible contender in the rapidly growing financial crime technology space.</p> <p>Breadth of Functionality: SAS has an impressive spectrum of solutions covering different aspects of enterprise risk management (ERM). These include market risk, energy risk, fraud management, anti-money-laundering and actuarial/insurance risk. SAS’ strategic intent and vision is around risk-based performance management and has already developed a number of capabilities in this area. SAS’ business intelligence suite give it an enviable capability for integrating risk, finance and performance management under a single “intelligence” umbrella.</p>
Core Technology	1st	<p>The data intensive nature of risk management, and the requirements for complex statistical calculations, has meant that SAS has had a competitive advantage over some of the generic enterprise technology and specialist firms. SAS has been particularly successful at “packaging” and re-selling the intellectual property developed as part of custom-built projects undertaken for clients.</p> <p>Data management: SAS is very strong in the areas of data integration, data storage for analytics and data quality management. These are critical to the success of any risk technology project.</p> <p>Risk analytics: SAS is an industry leader in performing complex analysis of large amounts of data. Its optimisation routines and data handling capabilities mean that it has superior performance (time and cost) over most of its competitors. SAS’ “tool-box” approach means that customers have full access to the underlying code and can customise risk algorithms for their specific needs.</p> <p>Reporting: SAS’ business intelligence (BI) capabilities provide a flexible environment for customers to define and generate risk measurement and monitoring information. The BI capabilities facilitate a two-way interaction between users and systems allowing for risk diagnostics, scenario analysis, stress testing and key risk indicator monitoring/dashboards.</p>



Organisational Strength	26th	<p>Sales execution: SAS has established a global risk practice. This is a core team of subject matter experts that facilitate pre-sales and thought leadership for local and regional sales teams. This capability combined with the existing international sales force and global network of offices has generated impressive results in the Basel II space (particularly in the European and Asia-Pacific banking sector). Further focused sales and marketing activities and expansion beyond Basel II and into other industry verticals such as capital markets, insurance and industrials will help SAS improve its ranking.</p> <p>Financial strength/stability: SAS is an established and financially strong firm. It achieved one of the highest scores in this category.</p> <p>Implementation and support: SAS has a knowledgeable and growing professional services team. However, SAS' risk revenue growth has not been synchronised with its implementation capacity. This has constrained the overall growth and impacted project success. Further recruitment combined with strategic partnerships will help SAS improve its ranking.</p> <p>Thought-leadership: SAS has improved its business knowledge in recent years. Further acquisition of intellectual property in the areas of risk methodology, risk-based performance, Solvency II and financial crime will enhance its ranking.</p>
Market Presence	11th	<p>SAS has achieved a dominant position in the Basel II software market with over 200 Basel II deals across the globe and multiple reference sites. This growth has been fuelled by the explosive demand for credit and operational risk management software in the European and Asia-Pacific banking markets where SAS is a well known and respected brand in the consumer and retail banking sectors. This success provides a very good platform for future growth. To capitalise on this opportunity SAS needs to increase its penetration into the investment banking, insurance and corporate sectors. It also needs to further develop its risk management offerings to help its existing customer base to move beyond Basel II towards integrated risk management and risk-based performance. Some recent wins in these areas suggest that this goal is achievable.</p> <p>SAS needs to increase its penetration in the US risk technology space.</p>
Innovation	27th	<p>SAS' size and global presence has pros and cons. On the positive side, SAS can allocate significant R&D resources and draw on vast pools of technological capabilities and marketing know-how. On the negative side, the size of the organisation means that it is sometimes slower to respond to the requirements of the rapidly changing risk technology market. This allows its smaller more "nimble" competitors to be first to market. Having a more focused and well funded risk product development strategy and rapid go-to-market execution would improve the frequency and speed of innovation in the future.</p>

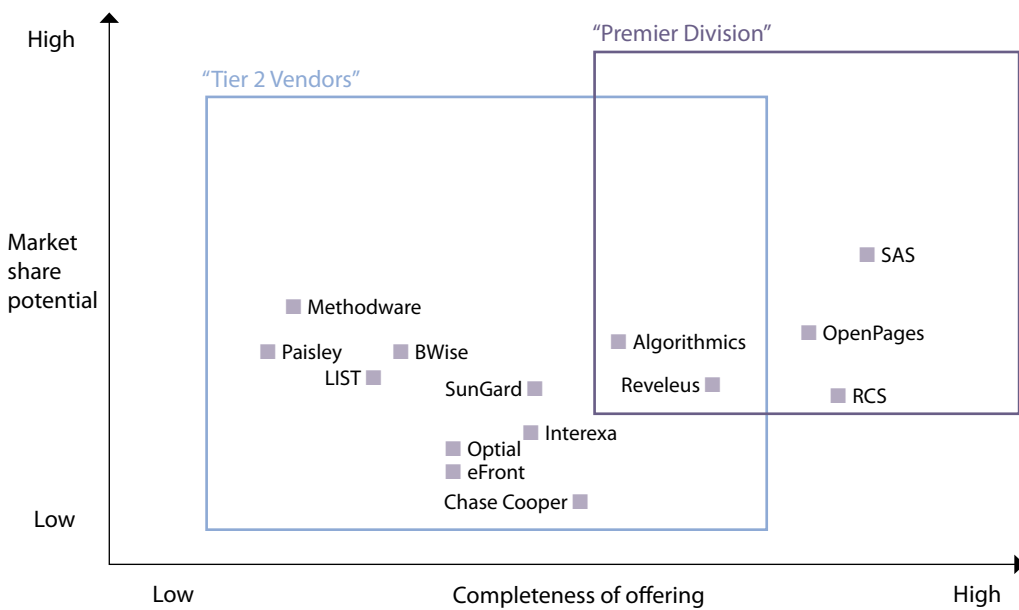


Figure 2: Credit Risk Management Software – Retail Banking Sector Competitive Landscape 2008



Source: Chartis "Credit Risk Management Systems 2008 – Market Analysis" Doc # RR08022 • Research Report

Figure 3: Operational Risk Management Software – Competitive Landscape 2008



Source: Chartis "Operational Risk Management Systems 2008- Market Analysis" Doc # RR08012 • Research Report



Related Research

RiskTech 100 2008

Oct, 2008 – Doc #RR0804 • Research Report

Mergers and Acquisitions in the Risk Technology Industry

June, 2008 – Doc #RR0803 • Research Report

Credit Risk Management Systems 2008 – Market Analysis

May, 2008 – Doc #RR08022 • Research Report

Operational Risk Management Systems 2008 – Navigating through a fragmented market

March, 2008 – Doc # RR08011 • Research Report

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