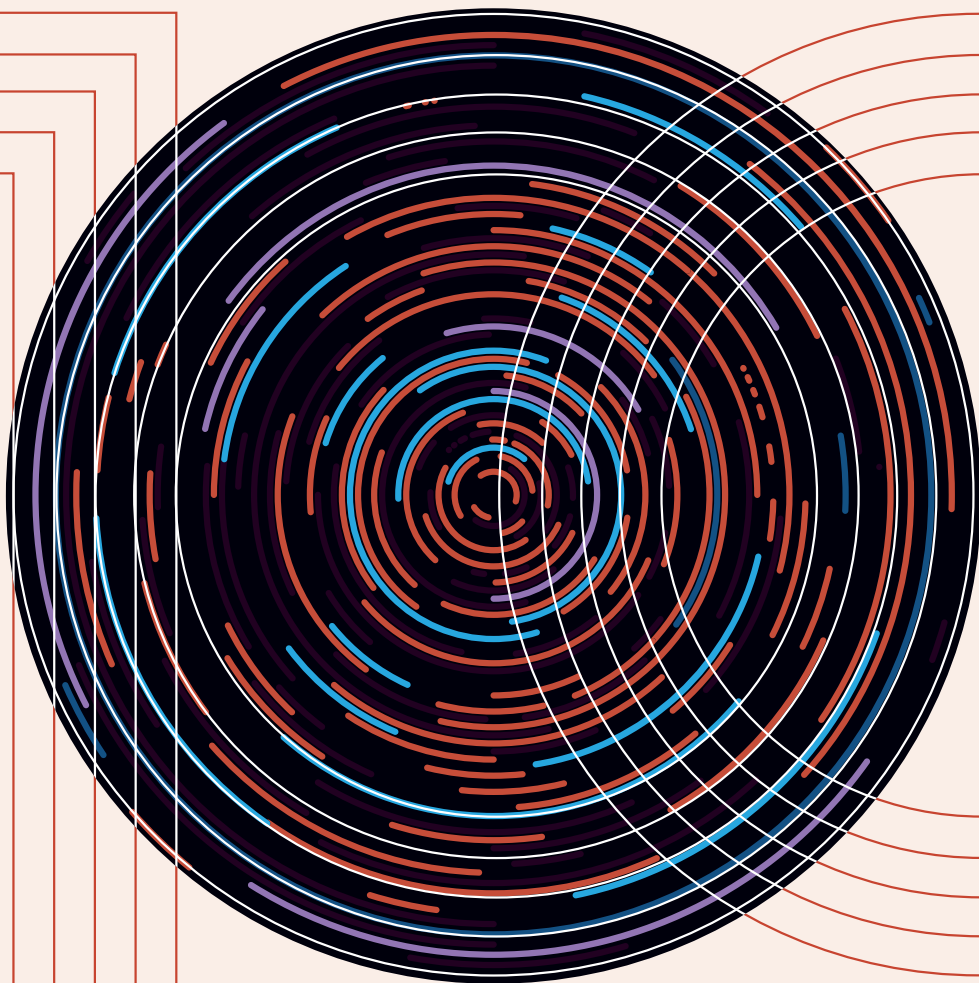




RiskTech 100 2023

Vendor Analysis:
PwC





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- Credit risk.
- Operational risk and governance, risk management and compliance (GRC).
- Market risk.
- Asset and liability management (ALM) and liquidity risk.
- Energy and commodity trading risk.
- Financial crime, including trader surveillance, anti-fraud and anti-money laundering.
- Cyber risk management.
- Insurance risk.
- Regulatory requirements.
- Wealth advisory.
- Asset management.

Chartis focuses on risk and compliance technology, giving it a significant advantage over generic market analysts.

The firm 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 developing and implementing risk management systems and programs for Fortune 500 companies and leading consulting firms.

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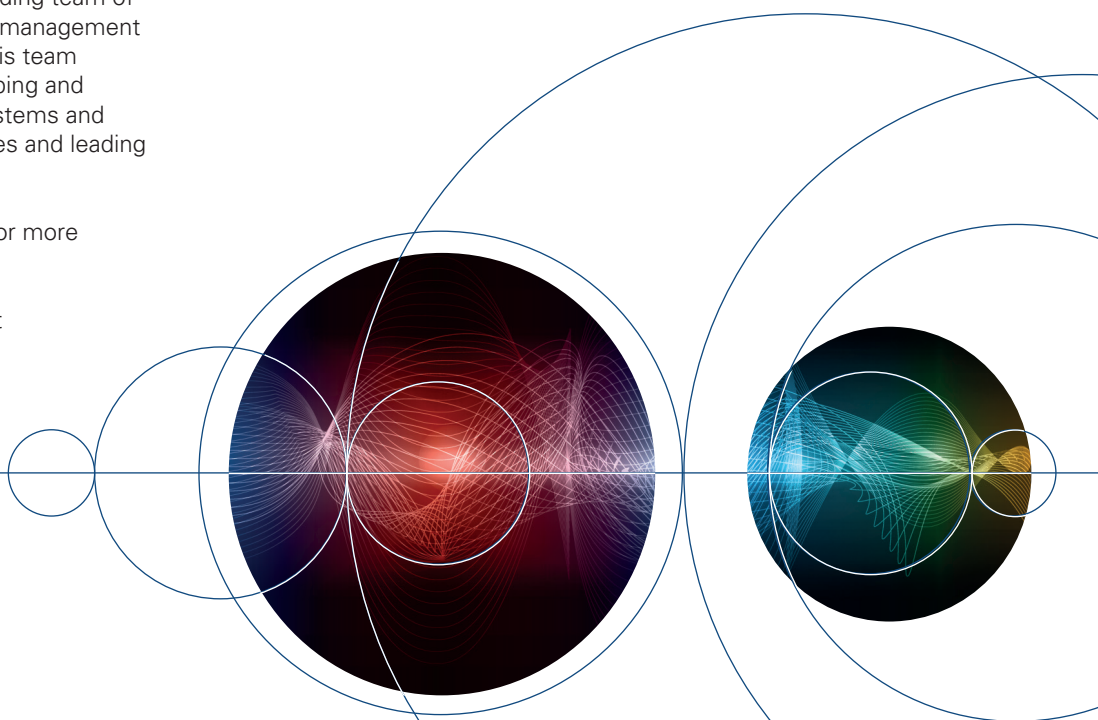


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1. Introduction

This report provides an independent evaluation and description of the ranking and scores given to PwC in Chartis' RiskTech100® 2023 report. It contains:

- A vendor and solution profile for PwC.
- The scores for PwC in each assessment category, with supporting explanation.

Chartis' RiskTech100® report is globally acknowledged as the most comprehensive independent study of the world's major players in risk and compliance technology.

Chartis is the leading provider of research and analysis on the global market for risk technology.

In RiskTech100® 2023, PwC rose 23 places in the ranking to **39**, with an overall score of **61.08%**.

2. PwC: Vendor profile

The company

PwC offers assurance, advisory and tax services. Considered one of the 'Big Four' accounting firms (along with EY, KPMG and Deloitte), the company in its current form was created in 1998, following the merger of Price Waterhouse and Coopers & Lybrand. PwC is based in London and operates as a network of firms, with 399 offices across 156 countries and more than 295,000 employees.

The offerings

PwC offers a suite of software products, primarily in the governance, risk management and compliance (GRC), cybersecurity and financial crime spaces. These are summarized below.

Ready Assess is a risk-assessment tool with questionnaire and rating capabilities and automated report generation.

Model Edge enables clients to design, create and deploy models to meet their requirements via an open platform that remains neutral to any point solution or other analytic engine. Modeling capabilities include governance, documentation, development and tuning, risk management testing, digital model inventory, data quality management, reporting and business intelligence, stress testing and scenario analysis, workflow management, regulatory capital and risk metrics, and analytics calculations.

Risk Detect allows firms to combat fraud and misconduct involving third parties. Its capabilities include transaction monitoring, risk detection, a pattern-detection engine, rules and scenario definition, advanced analytics, case management, an automated loan document review, continuous monitoring, alert management and data and workflow management.

Third Party Tracker leverages a combination of external data, third-party questionnaires and automated scoring to help firms avoid labor-intensive reviews and focus analysts' attention on relevant risks. Its capabilities include vendor/third-party inherent risk assessment, onboarding activities, cybersecurity/cyber risk assessments, maintenance of third-party inventory, control assessment and monitoring, real-time alerts, exception management, remediation

management, vendor profile management and performance analytics.

Enterprise Control automates the operating and testing of controls. Its capabilities include workflow and case management, various library capabilities (such as risks, controls, cause, impact and performance indicators), continuous monitoring via an analytics engine and internal control testing.

Interactions Hub enables firms to digitize end-to-end processes to reduce the time they spend on interactions and transparency-assessment activities within the organization. Product capabilities include needs assessment, identification and approval, contracting and confirmation of services. The solution also enables firms to integrate watchlist and tax-status databases and document results.

Transparency Hub is a centralized platform to help firms manage their reporting requirements. Its capabilities include data collection from internal and external sources, management of reporting requirements across more than 45 countries, cross-border and multilingual support, and the identification and monitoring of changes in regulations.

ProEdge enables firms to plan training programs customized for individual employees. Capabilities include a digital upskilling platform, course catalog, skill gap assessments, personalized learning pathways, certifications and badges, business solution crowdsourcing and digital-asset sharing.

3. PwC: Scores

Table 1 details the scores for PwC for each of Chartis' RiskTech100® assessment categories, with supporting explanations and key highlights from our analysis.

Table 1: Scores for PwC by assessment category

Assessment category	Score for PwC	Explanation
Functionality	74.50%	<p>Depth of functionality. PwC's platform is open and platform-neutral for other technologies, allowing firms to easily integrate it with their existing solutions. Application programming interfaces (APIs) enable integration with a variety of third-party providers, as well as intelligent data curation, with powerful tools for streamlining analytics and simulation. The PwC coding workbench permits the seamless ingestion of code, while a common UI/UX across PwC's full portfolio of products helps to enhance users' experience and familiarity. The company's cloud-based implementation is cheaper than on-premises installation and allows instant updates for new features.</p> <p>Breadth of functionality. PwC's solutions focus primarily on the financial crime and GRC areas and apply in many sectors: aerospace, defense, automotive, energy, government, hospitality, insurance, financial services, consumer markets, healthcare and transportation. PwC's financial crime solutions include cybersecurity/cyber risk management, cyber risk quantification, anti-fraud, anti-money laundering (AML) and trade-based AML, trade surveillance, watchlist/sanctions monitoring, Know Your Customer (KYC) and data management. Its GRC capabilities include enterprise GRC, operational risk, conduct and controls management, model risk management, IT risk, internal audit, GRC analytics and third-party/vendor risk management. Its financial services solutions cover all asset classes.</p>
Core technology	68.00%	<p>All of the Risk Suite products (including Ready Assess, Model Edge, Risk Detect, Third Party Tracker, Enterprise Control, Interactions Hub, Transparency Hub and ProEdge) are the intellectual property of PwC, while Risk Suite uses a common UX/UI across all of its products to enhance harmonious design and ease of use.</p> <p>In addition, PwC's Risk Suite products are cloud-based to enable flexibility and scalability, and include integrated data management for ingesting, profiling and reporting on data. Clients can deploy a broad range of modeling and analytics techniques using tools such as R, Python and PySpark. The solutions can also incorporate AI for enhanced modeling, while a built-in dashboarding and documentation engine includes natural language generation.</p>
Strategy	60.50%	<p>PwC's business is structured as a global network of partner firms, each of which operates as a separate legal entity under the PricewaterhouseCoopers International Limited membership. As a result, member firms can be independent and locally owned when providing professional services.</p>

Assessment category	Score for PwC	Explanation
Strategy (continued)	60.50%	<p>PwC's growth strategy is anchored in four core principles: being relentlessly client-focused, providing 'human-led' and tech-powered offerings, 'keeping it simple' and showing compassion to customers. Although PwC offers both human- and technology-related services, it is willing to create technology that cannibalizes its consulting services if doing so provides a faster, cheaper, more sustainable solution for its clients. This strategy has resulted in recent growth across the business, including 20% year-on-year customer growth and 10 points of margin-related growth across the solution portfolio.</p>
Customer satisfaction	56.00%	<p>PwC offers a variety of deployment options for its software: cloud and cloud-premise, and products can be delivered via several options: software as a service, software with a service, managed services and direct to market. It releases software updates for its products several times a year, to stay ahead of fast-moving regulatory and technological changes. PwC also uses end-to-end DevOps teams and a 24/7 help desk for customer support.</p> <p>The company's main focus is on helping clients prevent business disruptions rather than reacting to them. By identifying and addressing core challenges and issues – including managing financial crime and fraud, understanding the implications of privacy regulation and establishing and operating ESG programs, strategies and reporting requirements – PwC aims to increase its value proposition for its clients.</p>
Market presence	53.00%	<p>One of the largest professional services firms in the world, PwC is also one of the 'Big Four' accounting firms, with a globally recognized brand and a presence in 156 countries. With thousands of clients (among them more than 400 of the Fortune 500), almost 300,000 employees and annual revenue in excess of \$50 billion, PwC has a strong market position. The company's services span many sectors and its offerings are diversified across software, auditing and consulting (among other areas).</p>
Innovation	54.50%	<p>PwC boasts several innovations that help to differentiate its products. Rather than delivering point solutions that focus on isolated business processes, it offers holistic, transformational solutions, and its intelligent data curation combines best-of-breed data providers with proprietary PwC datasets. All of its technology solutions are designed to be open, with available APIs for other providers to communicate and exchange data and information as required by clients.</p> <p>Proprietary assets and IP are also bundled with the firm's cyber, privacy, forensics, internal audit, GRC technology and business consulting expertise. Dedicated client and internal Experience Centers, meanwhile, bring business strategy, user experience and technology disciplines to risk-related engagements. Finally, although PwC is a global firm, it focuses on the local delivery of products, IP and services, and a willingness to cannibalize consulting services allows it to develop faster and better technology and offer more sustainable solutions.</p>

Source: Chartis Research

4. Appendix A: Research methodology

Chartis' RiskTech100® report is the most comprehensive study of its kind, and is a core element of our annual research cycle. The rankings in the report reflect our analysts' expert opinions, along with research into market trends, participants, expenditure patterns and best practices. We also validate the analysis through several phases of independent verification (see Table 2).

So that we can continue to assess the market and its key players accurately, we are developing and refining our methodology as the risk technology market evolves. Any changes will be reflected in subsequent reports.

Table 2: RiskTech100® research methodology

<ul style="list-style-type: none"> • Performed a comprehensive market sweep of leading market participants in 40 risk categories.
<ul style="list-style-type: none"> • Completed 1,500 surveys and interviews with risk technology buyers and end users.
<ul style="list-style-type: none"> • Collected data on organizations' expenditure priorities and vendor preferences.
<ul style="list-style-type: none"> • Collated 400 completed questionnaires, briefing documents and product specifications from risk technology vendors.
<ul style="list-style-type: none"> • Conducted and attended 200 interviews, product demonstrations and strategy briefings with risk technology vendors.
<ul style="list-style-type: none"> • Conducted 150 interviews with risk technology buyers to validate our survey findings.
<ul style="list-style-type: none"> • Conducted more than 50 interviews with independent consultants and system integrators specializing in risk technology.
<ul style="list-style-type: none"> • Applied RiskTech100® assessment criteria to filter the top 150 vendors.
<ul style="list-style-type: none"> • Reviewed data with 30 independent consultants and 110 risk technology buyers.
<ul style="list-style-type: none"> • Interviewed 60 ex-employees of the top 50 risk technology vendors to validate our findings.
<ul style="list-style-type: none"> • Undertook final data validation with 100 vendors, receiving 80 completed questionnaires and carrying out more than 100 vendor briefings.
<ul style="list-style-type: none"> • Completed 100+ independent reference checks to validate vendor claims and client satisfaction levels.
<ul style="list-style-type: none"> • Developed the final top 100 rankings, identified the category winners and finalized the report.

Source: Chartis Research

5. Appendix B: How to read the RiskTech100® rankings

The RiskTech100® assessment criteria comprise six categories:

- Functionality.
- Core technology.
- Strategy.
- Customer satisfaction.
- Market presence.
- Innovation.

Within each category, we have included a number of sub-categories to encompass the range and scope of current risk technology solutions (see Table 3).

Table 3: RiskTech100® assessment criteria

Functionality	<ul style="list-style-type: none"> • Depth of functionality. 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 firms that achieved an appropriate balance between sophistication and user-friendliness. In addition, functionality that links risk to performance is given a positive score. • Breadth of functionality. The spectrum of risks covered as part of an enterprise risk management solution. The risk spectrum 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. Functionality within and integration between front-office (customer-facing) and middle-/back-office (compliance, supervisory and governance) risk management systems are also considered. High scores are given to firms achieving (or approaching) integrated risk management – breaking the silos between different risk management functions.
Core technology	<p>Chartis evaluates a vendor’s overall technology stack by benchmarking it against latest best practice. Key considerations this year have been the use of cloud and Big Data technologies, as well as the agility and openness of the overall technology architecture.</p> <ul style="list-style-type: none"> • Data management. The ability of enterprise risk management systems to interact with other systems and handle large volumes of data. Data quality is often cited as a critical success factor, and ease of data access, data integration, data storage and data movement capabilities are all important factors. • Risk analytics. The computational power of the core system, the ability to analyze large amounts of data in a timely manner (e.g., real-time analytics) and the ability to improve analytical performance are all important factors. • Reporting and visualization. The ability to surface risk information in a timely manner. The quality and flexibility of visualization tools, and their ease of use, are important for all risk and compliance management systems.

Source: Chartis Research

Table 2: RiskTech100® assessment criteria (continued)

Strategy	<ul style="list-style-type: none"> • Vision and leadership. Market understanding, a scalable business model, product strategy, technology strategy and go-to-market strategy are critical success factors. Both organic and inorganic growth strategies are considered, as well as strategic alliances and partnerships. • Ability to execute. The size and quality of the sales force, the sales distribution channels, the global footprint, partnerships, differentiated messaging and positioning are all important factors. Specific consideration is given to the quality of implementation and support functions, post-sales support and training. • Financial performance. Revenue growth, profitability, sustainability, financial backing and the percentage of recurring revenues. The ratio of license to consulting revenues is key to business scalability.
Customer satisfaction	<ul style="list-style-type: none"> • Value for money. The price to functionality ratio, and the total cost of ownership versus license price. • After-sales service and support. Important factors include the ease of software implementation, the level of support and the quality of training. • Product updates. Important considerations for end users include how often vendors issue updates and how well they keep pace with best practice and regulatory changes.
Market presence	<ul style="list-style-type: none"> • Market penetration. The number of customers in chosen markets and the rate of growth relative to sector growth rate. • Market potential. Brand awareness, reputation, thought leadership and the vendor's ability to use its current market position to expand horizontally (with new offerings) or vertically (into new sectors). • Momentum. Performance in the past 12 months, including financial performance, new product releases, quantity and quality of contract wins and market expansion moves.
Innovation	<ul style="list-style-type: none"> • New product development. New ideas, functionality and technologies to improve risk management for target customers. Chartis assesses new product development not in absolute terms, but in relation to a vendor's closest competitors. • Exploitation. Developing new products is only the first step in generating success. Speed to market, positioning of new products and translation to incremental revenues are critical success factors. • New business models. Innovation is not limited to the product dimension. Some risk technology vendors are also actively working toward new business models for generating profitable growth.

Source: Chartis Research

6. Further reading



RiskTech100 2023



Big Bets 2022



Buyside50 2022



KYC Solutions, 2022: Market Update and Vendor Landscape



IFRS 17 and LDTI Solutions, 2022: Market Update and Vendor Landscape



GRC Solutions, 2021: Market Update and Vendor Landscape

For all these reports, see www.chartis-research.com