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United Kingdom Data Maturity Model

Mitch Wein
Executive Principal

datos INSIGHTS

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Executive Summary

Key Challenges With Data Maturity in the United Kingdom

- Only 33% of insurance organizations have strong executive sponsorship for data initiatives, limiting alignment between business strategy and data-driven decision-making.
- Under 15% of insurance firms have embedded data science capabilities, with most relying on basic reporting, highlighting a significant analytics skills gap.
- Despite strong governance frameworks, only 21% of insurance organizations have comprehensive data governance, and many struggle to extract actionable insights from their data.
- Many insurance organizations struggle to convert data into actionable insights, hindering innovation and competitive advantage.
- In February 2025, Datos Insights conducted a survey in collaboration with The Insurance Network (TIN) to inform the discussions at TINtech London Market 2025.

Insurance Model

Symptoms of Low Data Maturity

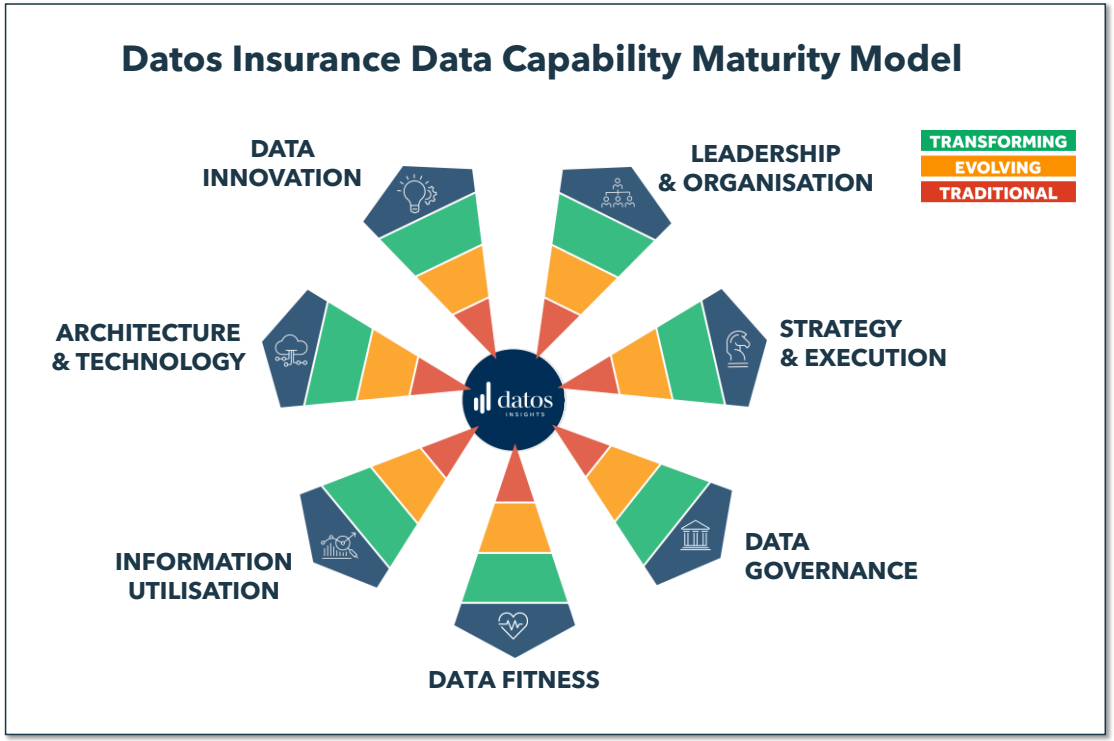
Datos Insights has encountered many insurers that suffer from data maturity. These organizations share one or more of the following characteristics.

Data accessibility and integration	Decision-making and analytics	Data quality and governance	Operation efficiency and process automation	Strategic and competitive impact
• Sourcing/merging data requires significant effort, relying on tribal knowledge. • External data is underutilized, limiting opportunities in underwriting, pricing, and risk assessment.	• Over-reliance is on experience rather than data-driven insights. • Delays in report generation and data science activities are due to poor data foundations. • Insights are not embedded into processes, leading to poor adoption.	• Lack of sustained efforts leads to recurring poor data hygiene. • Lack of consensus on critical data definitions results in inefficiencies. • Gaps in governance, weak data-access controls, or ignorance of regulations lead to compliance risks.	• Slow processes are due to fragmented data and outdated analytics capabilities. • Reliance on manual checks rather than automated frameworks reduces accuracy and efficiency.	• Underutilization of third-party data sets limits competitive differentiation. • No clear framework is available to link data initiatives with commercial objectives.

Datos Insights Insurance Data Capability Maturity Model

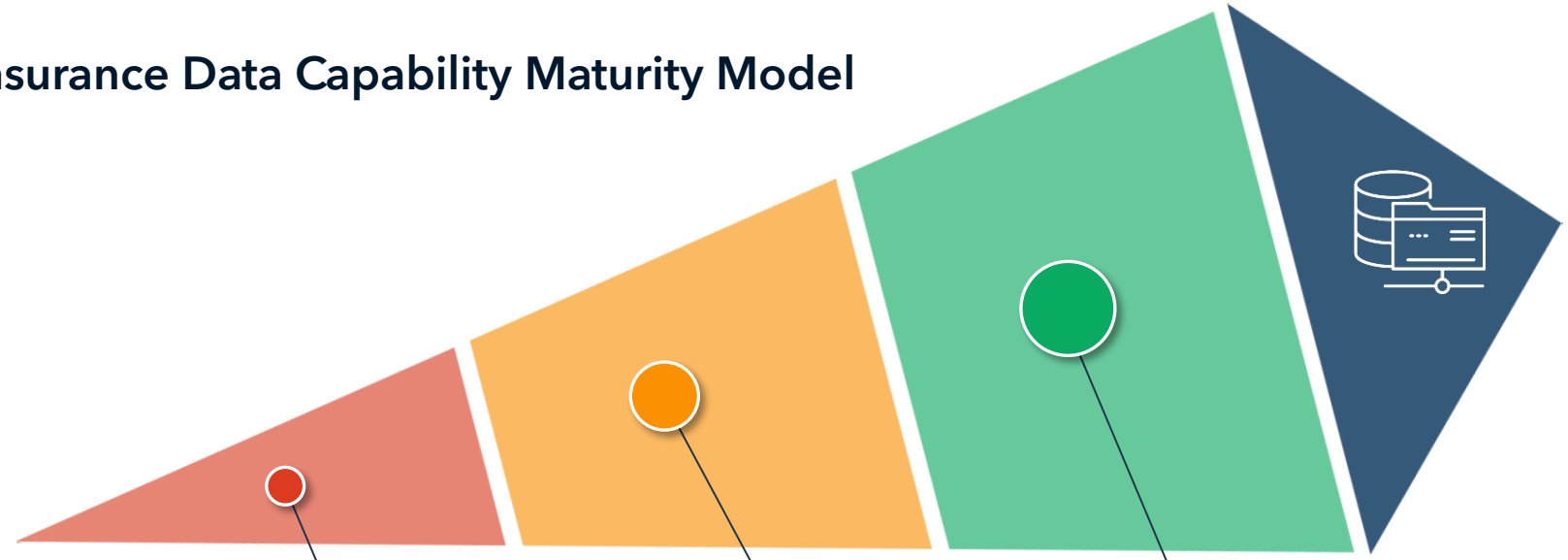
The seven dimensions of data maturity are designed to drill down on capabilities required to create a top-performing organization.

- Evaluates data challenges and maturity in the London market to understand barriers and assess data management sophistication
- Facilitates industrywide collaboration and sharing
- Provides benchmarks for data maturity, helping companies identify gaps, direct future investments, and spur data-driven innovation
- Achieving data mastery requires maturity across all dimensions
- Sustaining data mastery requires cultural change, which requires maturity in all dimensions but especially in data leadership, data governance, and information utilization



The Three Stages of Data Maturity

Datos Insurance Data Capability Maturity Model



DATA MASTERY

Traditional

- Data quality issues
- Siloed/inaccessible data
- Low levels of advanced analytics
- Reliance on spreadsheets
- Security/privacy exposure
- Data is not highly valued

Evolving

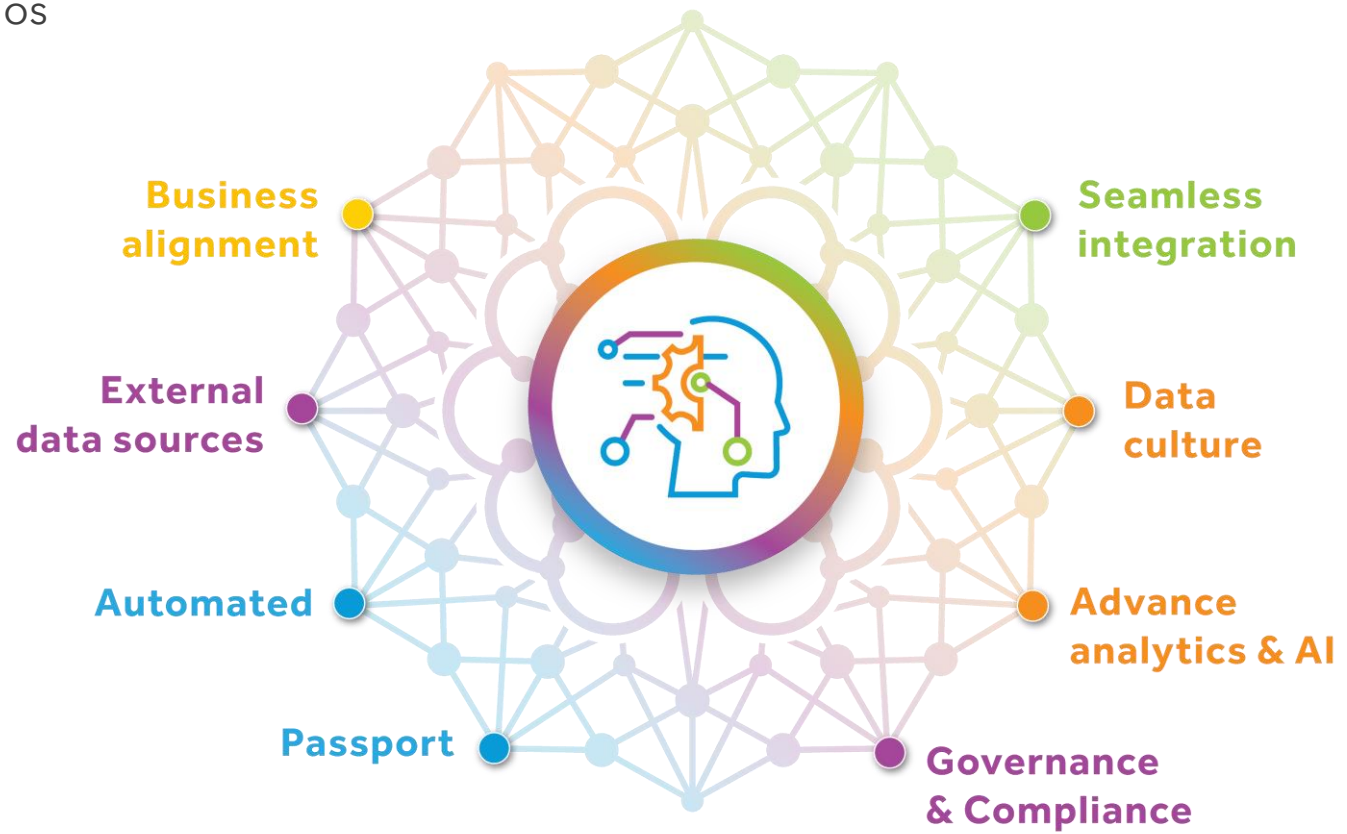
- Increasingly data-driven
- Broader array of business intelligence
- Good handle on data risks, but exposures still exist
- Defined business KPIs
- Advanced analytics still missing expectations
- Data quality issues related to MDM

Transforming

- Executive data leadership
- High data quality
- High organizational data literacy
- Data-driven decision-making
- Widespread use of advanced analytics and predictive models
- Mature data governance

What Is Data Mastery?

- Data flows effortlessly across systems, eliminating silos and enabling real-time access.
- Decision-making is guided by accurate, real-time insights rather than intuition.
- Predictive models and AI-driven insights drive competitive advantage.
- Clearly defined policies ensure regulatory adherence, security, and trust.
- Automated validation processes maintain data accuracy and consistency.
- Streamlined data pipelines and self-service analytics enhance agility.
- External data sources are leveraged to improve underwriting, pricing, and customer insights.
- Data initiatives are closely linked to business goals, driving measurable impact.



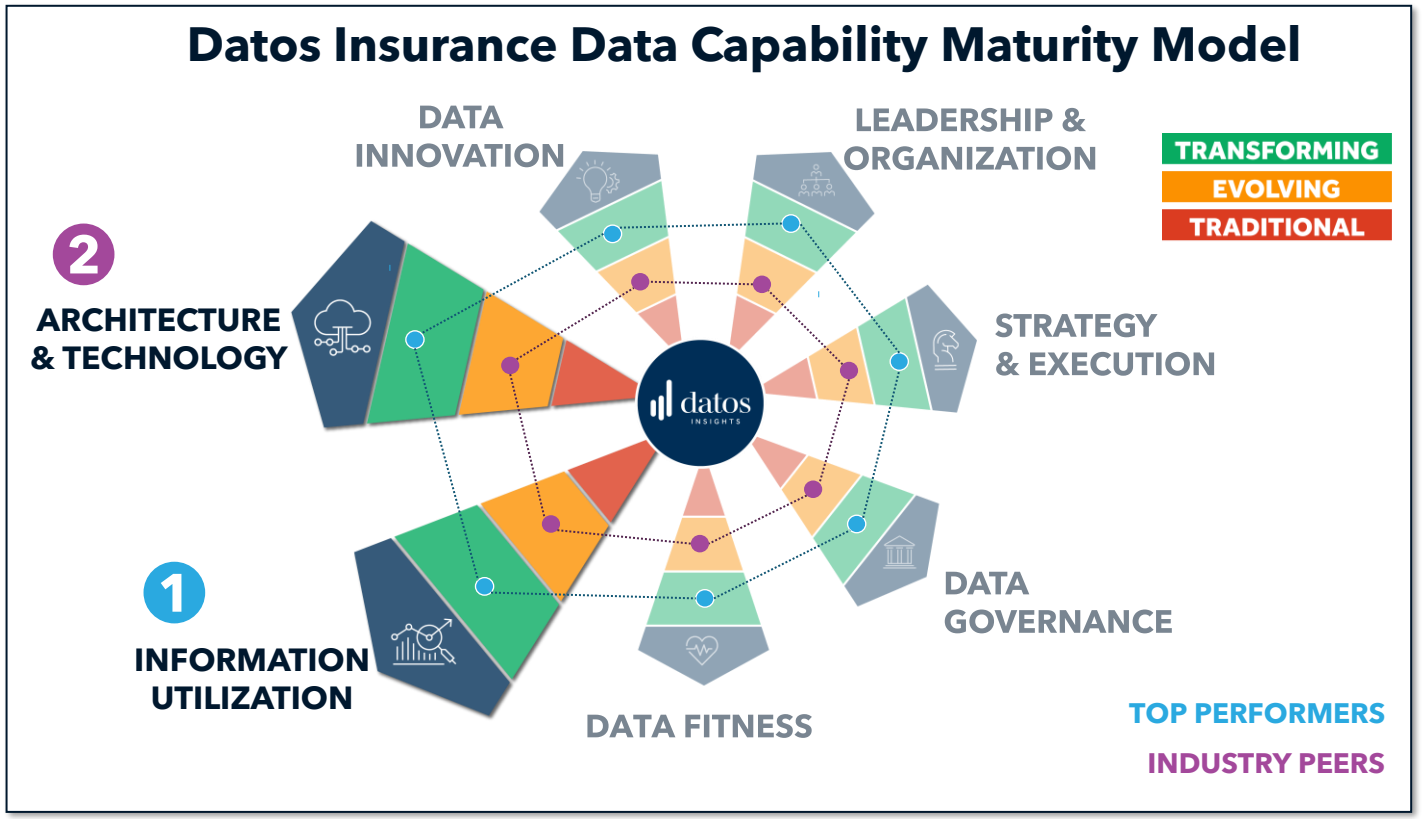
What the Data Shows

Top Performers

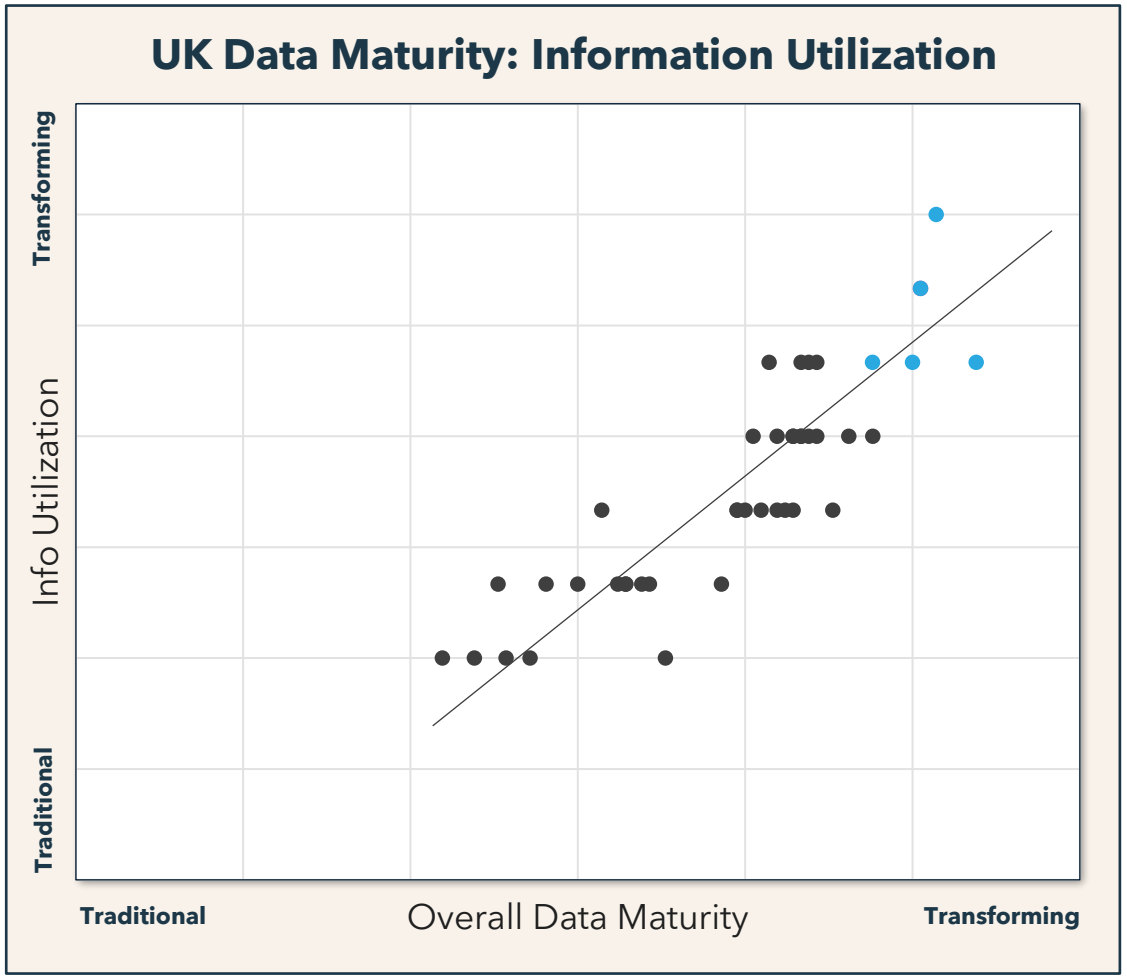
There were two capabilities that really mattered in separating top performers from the rest of the participants.

Top performers outperformed their peers by

56%



Insurer-Reported Information Utilization Capabilities Correlated With Data Maturity



Top performers

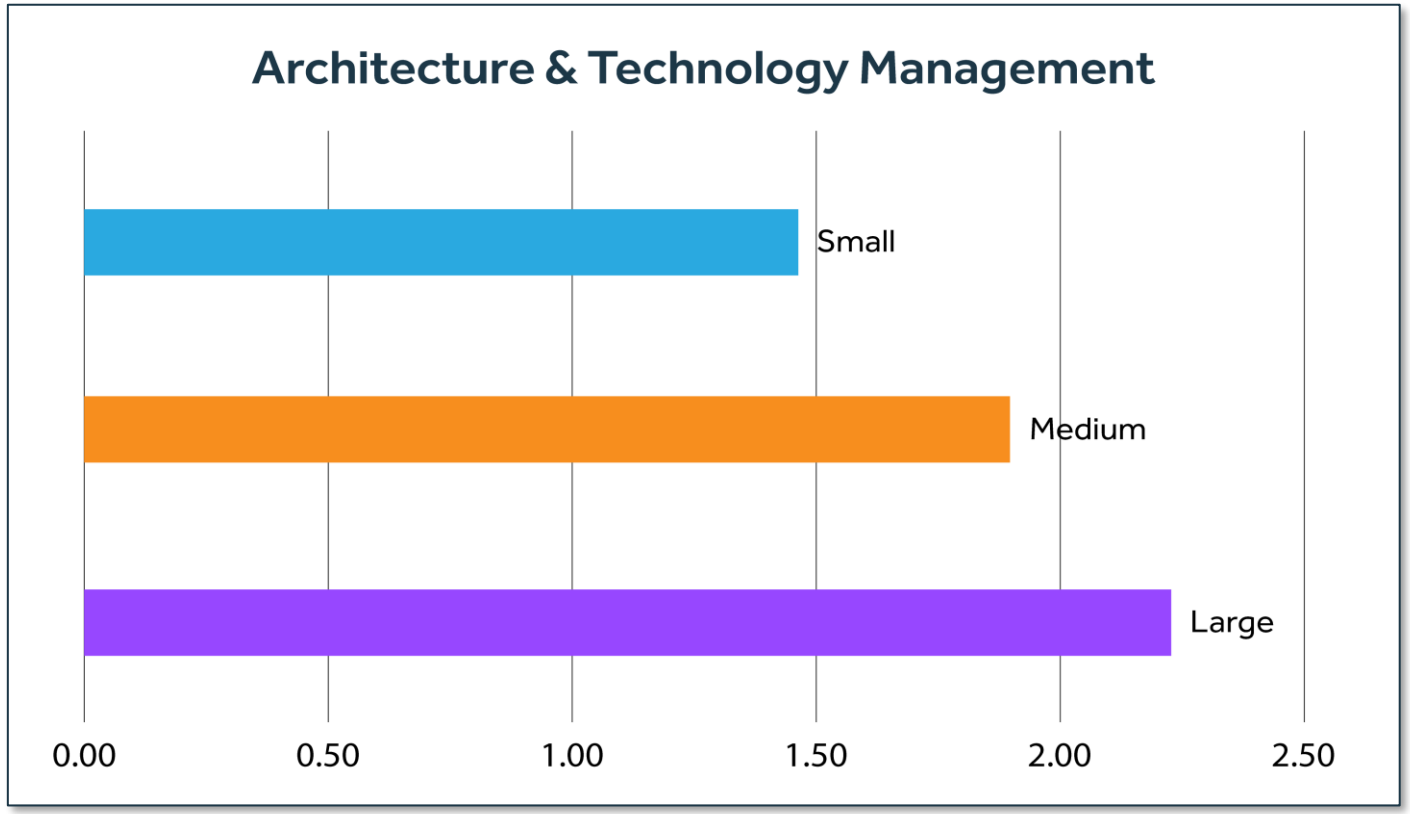
- Extensive, organization-wide data literacy programs for measurable outcomes
- Comprehensive self-service platforms with governed data access for user-driven analysis and a data-driven culture

Industry peers

- Less extensive, organization-wide data literacy programs for measurable outcomes
- More limited self-service platforms with governed data access for user-driven analysis and a data-driven culture

Midsize Insurers Can Close the Gap With Billion-Pound Competitors

£50.1 million to £100 million revenue demonstrate Architecture & Technology maturity.

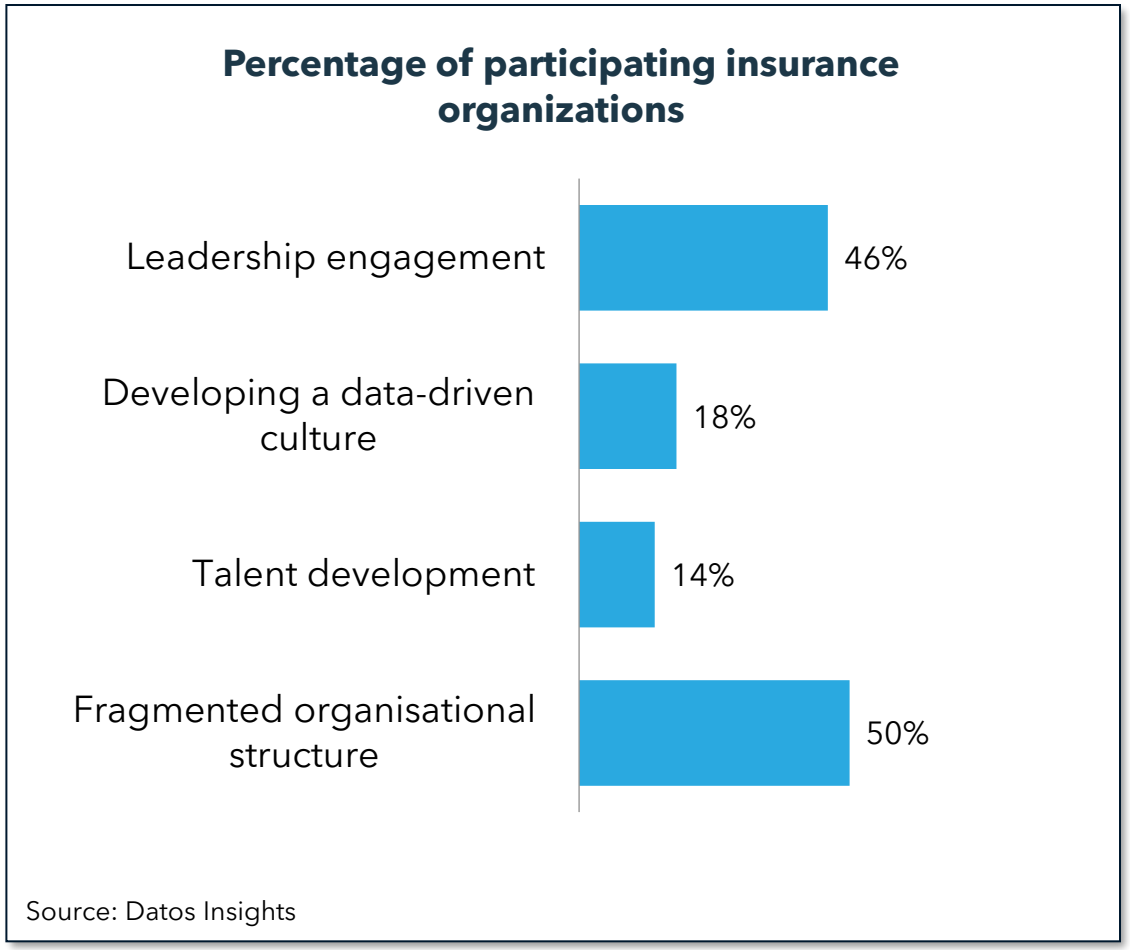


1. Technology infrastructure remains modern and efficient through some level of automation.
2. Employ integrated architectures to facilitate management and scalability of their systems.
3. Utilize some automation of processes to optimize data operations.
4. Optimize limited resources through strategic decisions to match the technological and architectural management levels of larger firms.

Exploring the Dimensions

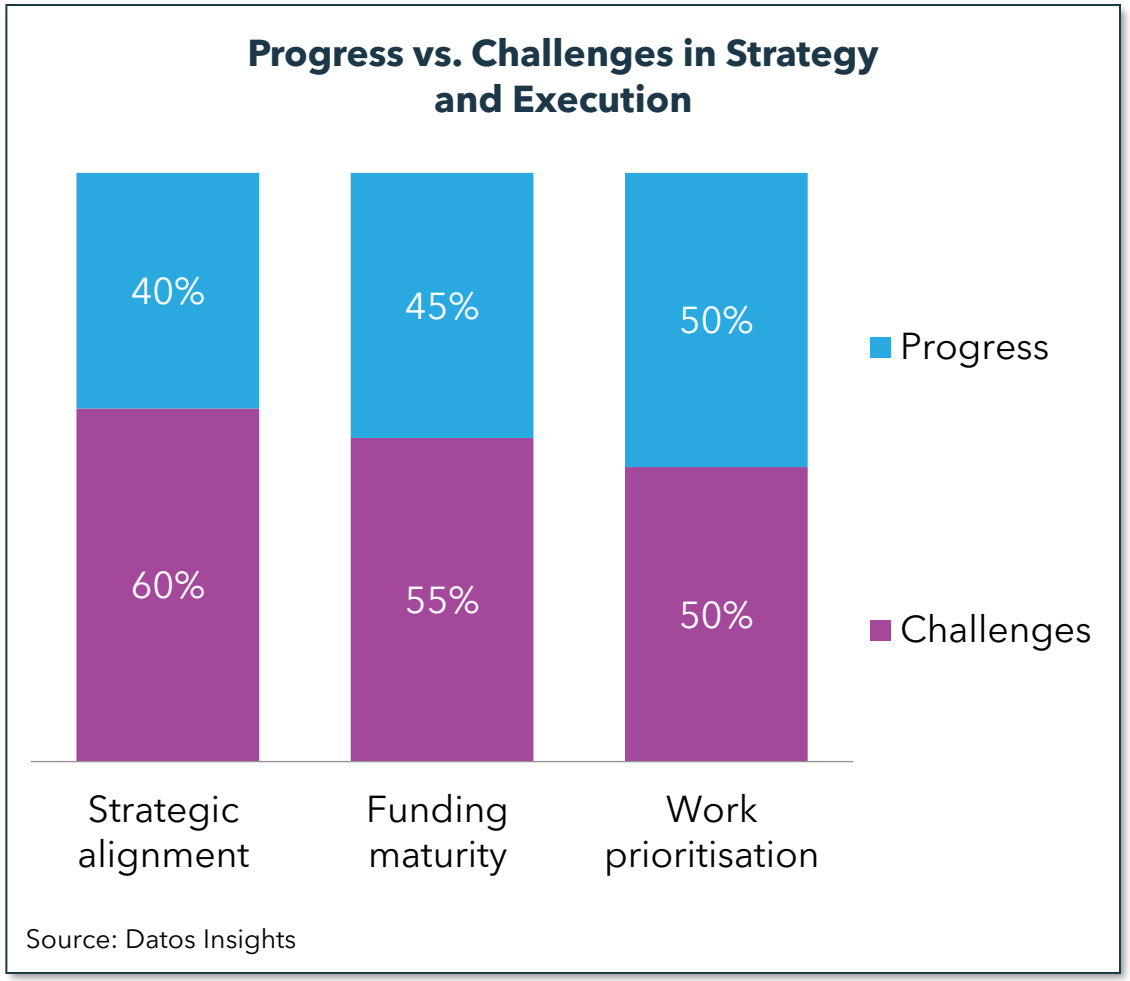
Dimension One: Leadership and Organization

- **Leadership engagement:** 46% of organizations report regular leadership involvement in data initiatives, yet only 30% demonstrate strong executive sponsorship, highlighting a need for increased leadership-driven data strategies.
- **Developing a data-driven culture:** Despite strong regulatory compliance, only 18% of firms have fully embedded data science capabilities, indicating that data insights are not consistently leveraged in decision-making.
- **Talent and skills development challenges:** Most organizations have dedicated data teams, yet structured talent development programs remain inconsistent, potentially impacting long-term innovation and data capabilities. Only 14% of firms have embedded data science capabilities, highlighting a shortfall in talent investment.
- **Fragmented organizational structure:** Around 50% of organizations have siloed structures, making it difficult to implement cross-functional data strategies.



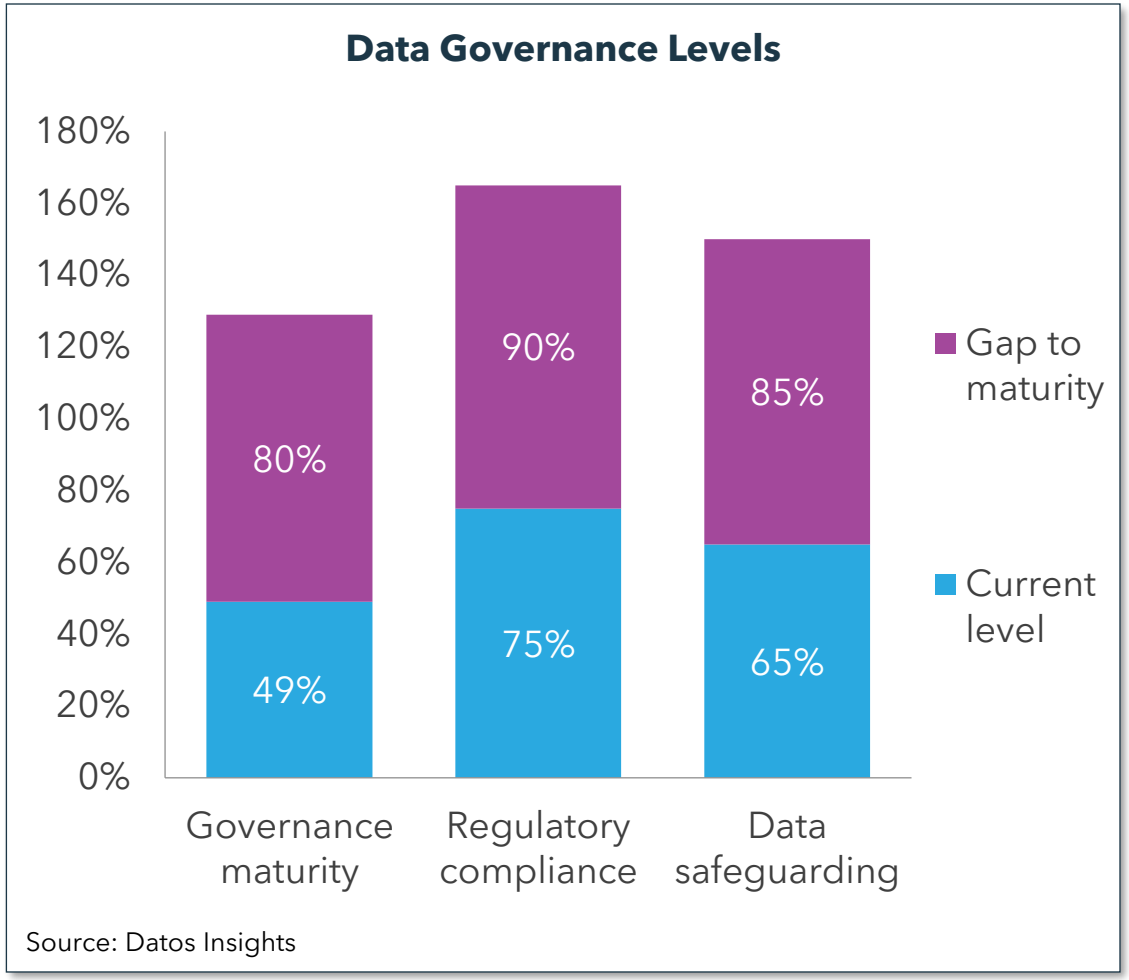
Dimension Two: Strategy and Execution

- **Strategic alignment needs stronger leadership engagement:** 60% of organizations face challenges in aligning leadership engagement and data-driven decision-making. Insurers lag global standards in data and AI adoption.
- **Funding models must shift toward outcome-based investment:** AI and advanced analytics remain underfunded despite their potential benefits. A shift toward value-based funding is emerging, linking data investments to business impact. However, fragmented technology investments slow digital transformation efforts; 55% of organizations struggle to secure sustained funding for AI, analytics, and digital transformation.
- **Work prioritization and execution require greater maturity:** 50% of organizations lack structured prioritization frameworks, leading to inefficiencies. Real-time processing is underutilized, limiting responsiveness in underwriting and claims. Only 14% of insurers have embedded data science capabilities, restricting predictive insights.



Dimension Three: Data Governance

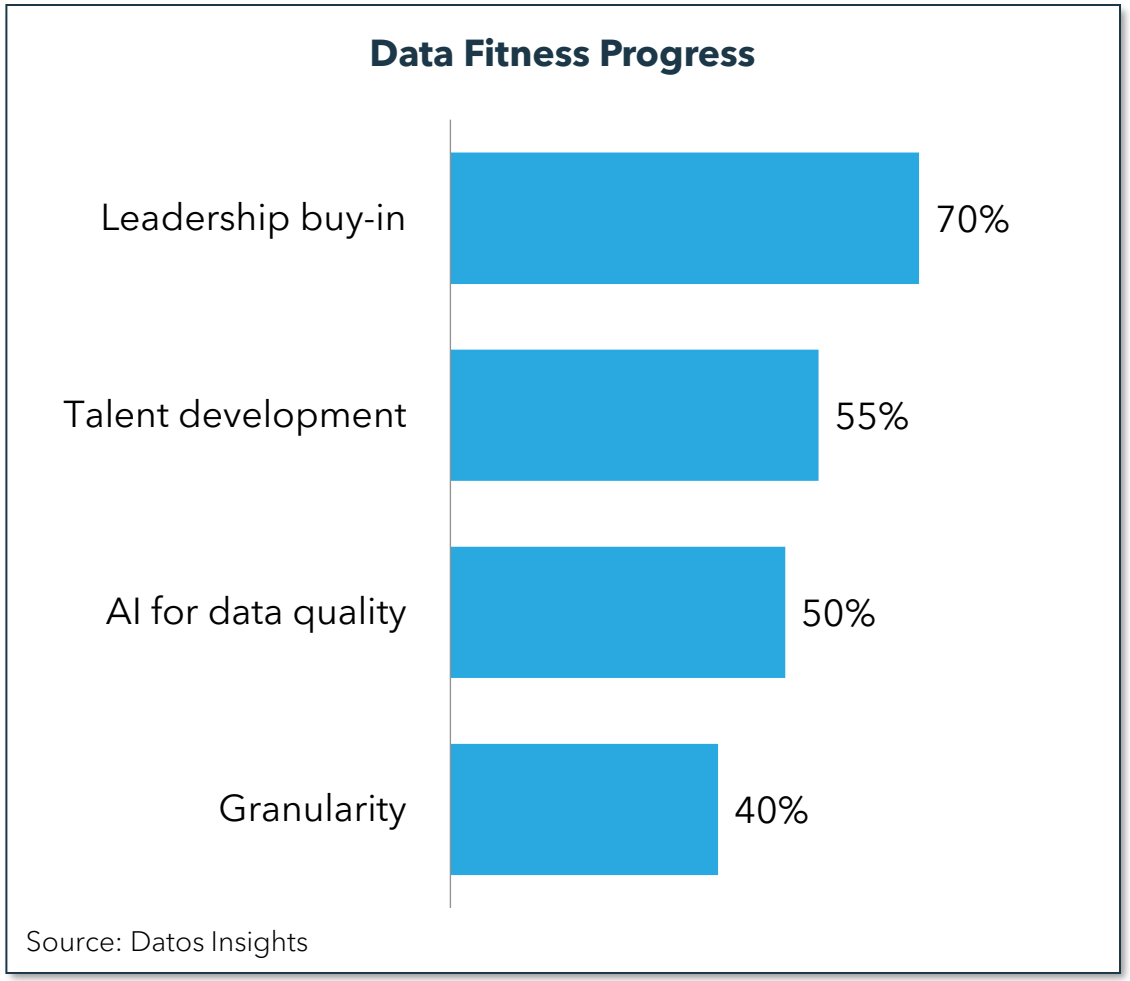
- **Gaps in strategic execution:** 49% of firms update governance policies regularly, but only 20% have comprehensive frameworks. Leadership engagement is inconsistent, impacting long-term data strategy integration.
- **Regulatory compliance is a strength:** Security frameworks are robust, but real-time processing adoption is lacking. Most insurers have proactive monitoring and security audits, yet real-time threat detection remains underdeveloped, exposing firms to evolving cyber risks.
- **Data safeguarding needs real-time enhancements:** 65% of firms conduct automated data quality checks, but batch processing limits real-time security. Centralized data hubs and API-based architectures are growing but require further adoption for safeguarding.



Source: Datos Insights

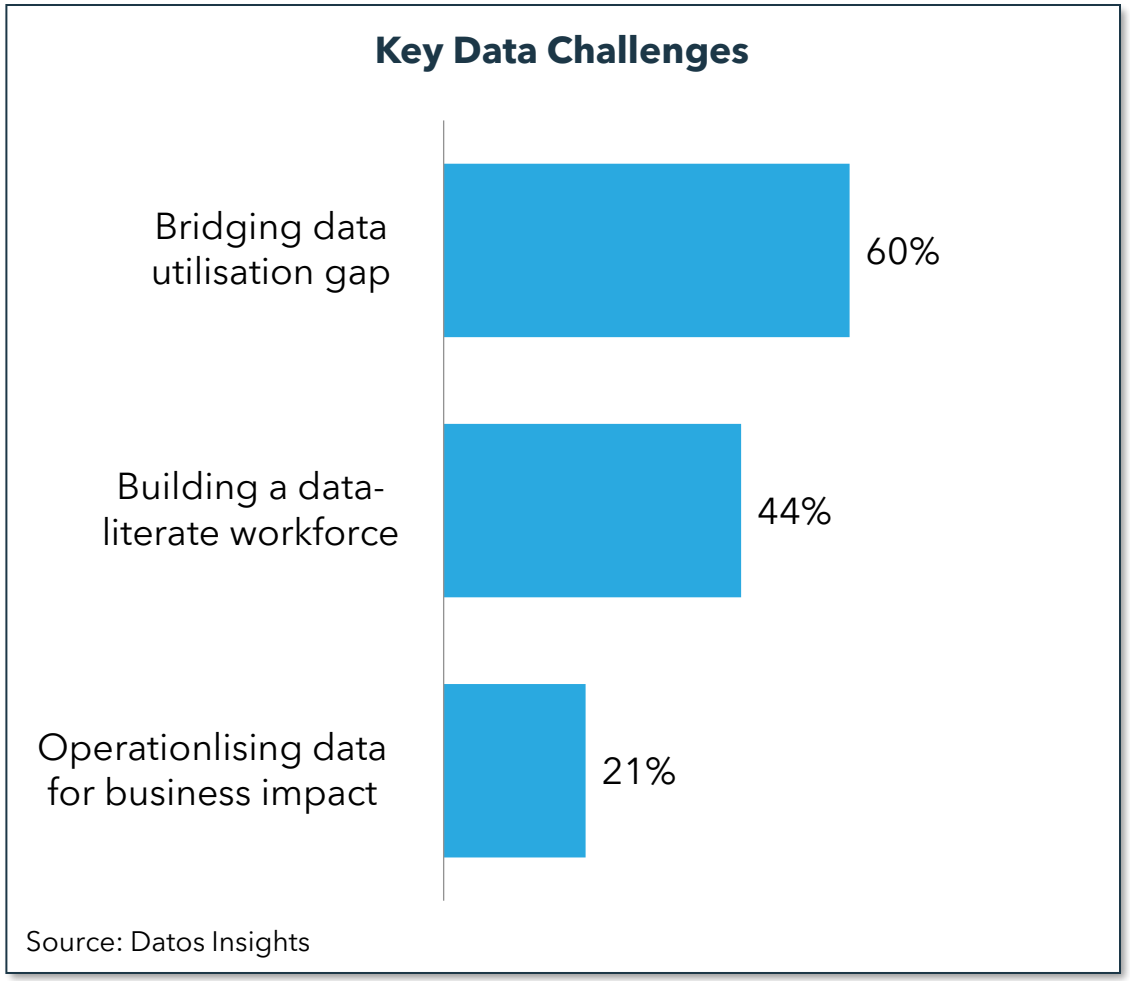
Dimension Four: Data Fitness

- **Data quality and veracity:** 50% of firms update data governance policies regularly, but only 19% have comprehensive frameworks with real-time monitoring. Talent development has made some progress; yet, structured career paths for data professionals and upskilling programs require more investment.
- **Granularity and timeliness:** Movement toward centralized data hubs is helping improve data accessibility and timeliness. Many organizations still rely on batch data updates rather than real-time data processing, reducing responsiveness.
- **Data preparedness:** 70% of firms report buy-in from leadership regarding data strategy, yet structured data literacy programs are lacking. Only 14% of firms have fully embedded data science capabilities, limiting analytics-driven decision-making.



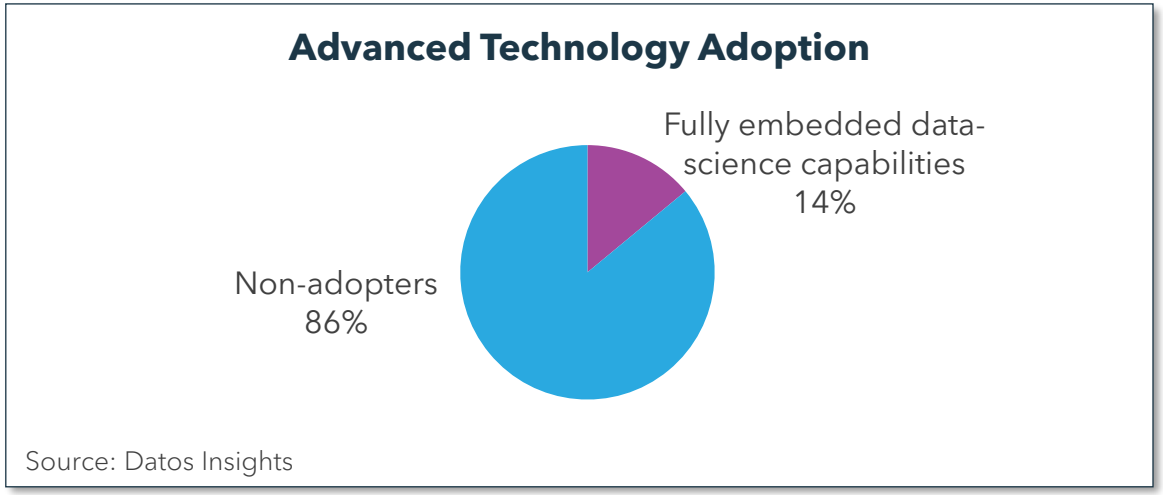
Dimension Five: Information Utilization

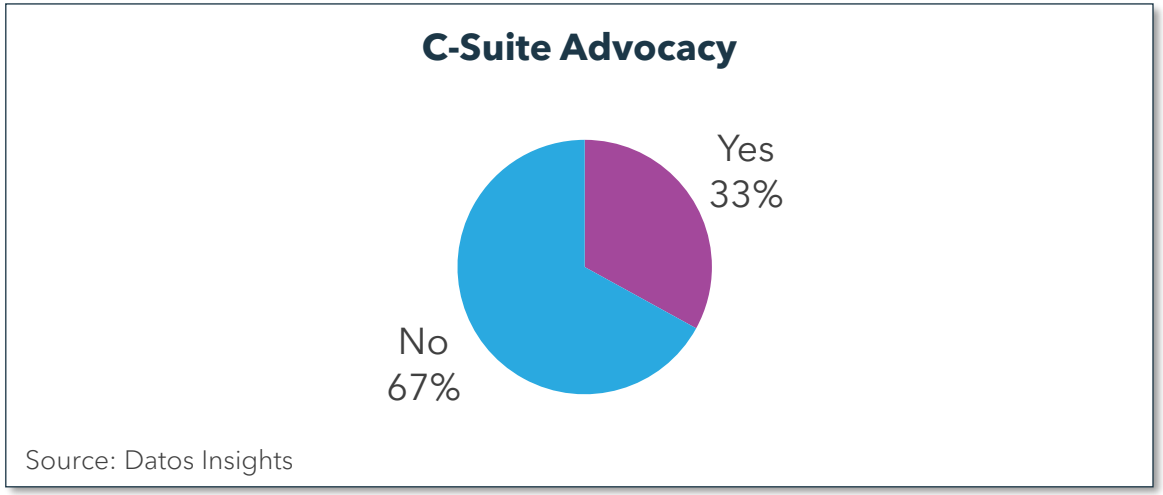
- **Bridging the data-utilization gap:** Insurers collect vast amounts of data but struggle to extract actionable insights due to limited real-time processing, siloed ecosystems, and underdeveloped self-service analytics.
- **Building a data-literate workforce:** While 44% of organizations have dedicated data teams, data literacy remains low, with many relying on basic reporting. Upskilling employees, enhancing self-service analytics, and increasing C-suite engagement are crucial to fostering a data-driven culture.
- **Operationalizing data for business impact:** Only 21% of organizations have comprehensive data-governance frameworks, limiting real-time decision-making and cross-functional collaboration. Firms must invest in AI-driven automation, proactive compliance monitoring, and leadership-led data strategies to drive innovation and efficiency.



Dimension Six: Architecture and Technology Management

- **Shift toward API-first and cloud-based architecture:** Many organizations are moving toward API-first architectures to enhance data interoperability and connectivity.
- **Insurers lag in advanced technology adoption:** Only 14% of organizations have fully embedded data science capabilities, while 42% still rely on basic reporting. Limited AI/machine-learning adoption hinders predictive analytics, risk modeling, and fraud detection.
- **Leadership engagement in technology initiatives is mixed:** 33% have active executive champions driving clear technology roadmaps, indicating a gap in C-suite advocacy for digital transformation.





Dimension Seven: Data Innovation

- **Reliance on legacy systems:** 56% of insurers operate on dual platforms, while many still rely on batch processing rather than real-time analytics, restricting agility.
- **Underutilization of third-party data:** Compliance efforts focus heavily on GDPR and FCA mandates, often at the expense of innovation-led investments in AI, data-sharing, and third-party integrations.
- **Interoperability gaps:** Data-sharing challenges persist, with diverse approaches to integrating external data.

The Path Forward

The Future Starts in 2025 but Doesn't End There

- In the London Market, full adoption of Blueprint 2 Phase 1 is expected to take place in October 2025. EDI messages will be reduced to a small number of ACORD messages. Lloyds is partnering with Velonetic, a DXC subsidiary, for the implementation.
- Capabilities required for alignment to the Blueprint include the following:
  - Premium submission and signing
  - Premium settlement review and release
  - Claims submission and agreement
  - Claims settlement submission and release
  - Implementation includes transacting via new portals, MRC v3 (Market Reform Contract version 3) submission, Core Data Record processing, and EBOT/ECOT messaging and query management.
- However, this is just the start. Technological evolution will push insurance carriers, brokerages, and syndicates to adopt new technologies in everything they do.

The Leading Edge: 2030 and Beyond

- **Autonomous insurance operations:** Systems leverage advanced AI and quantum computing to autonomously underwrite risks, detect fraud, optimize claims settlement, manage distribution networks, and calculate optimal reinsurance structures with minimal human oversight. The organization operates with 'digital instinct,' automatically adapting pricing, coverage terms, commission structures, and claims handling based on real-time data signals across the entire insurance ecosystem.
- **Universal data democratization:** All employees, from claims adjusters to actuaries to underwriters, operate as data scientists through natural language interfaces and automated analytics. AI assistants provide contextual insights on risk assessment, loss development, producer performance, and market dynamics. Analytics-driven decision-making is embedded into every role and process across policy administration, claims, billing, and distribution management.
- **Predictive ecosystem orchestration:** The organization proactively orchestrates its entire insurance ecosystem (brokers, policyholders, claims partners, reinsurers) through predictive modeling and automated optimization. Machine learning systems dynamically reconfigure agency appointments, policyholder communications, claims workflows, and treaty structures to maximize value creation across the network.

The Leading Edge: 2030 and Beyond

- **Quantum-enhanced analytics:** The organization leverages quantum computing capabilities to solve previously impossible computational challenges in pricing, reserving, and capital modeling. This enables real-time processing of massive datasets spanning policy, claims, and third-party data to achieve unprecedented accuracy in risk assessment, loss prediction, and portfolio optimization.
- **Self-evolving architecture:** The technology infrastructure continuously evolves through AI-driven automation, dynamically scaling and reconfiguring based on changing business needs without human intervention. The architecture seamlessly integrates emerging technologies while maintaining security through quantum-resistant encryption across policy admin, claims, billing, reinsurance, and other core systems.

Performance/Impact Expectations

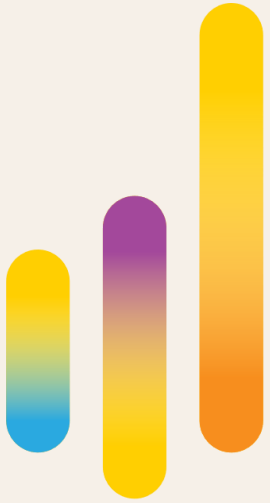
- Improved combined ratios continually push competitors' ratios lower.
- Improved expense ratios—the "middleman expenses" between origination of risk and covering risk—are dramatically reduced.
- Improved loss ratios—complex risk pools can be defined more accurately with more specificity and far more predictable loss expectations.

Conclusion

Conclusion

Data mastery makes or breaks insurers by 2030. Datos Insights' seven dimensions of data mastery separate tomorrow's winners from the status quo.

- Your competitors are weaponizing data; mastering capabilities now determines market leaders.
- Legacy data approaches are crumbling under the weight of AI and advanced analytics demands.
- The data performance gap is creating unstoppable market advantages for insurance leaders.



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