

ERA OF INTELLIGENCE SERIES

Embracing the era of intelligence for a data-driven future

Unlocking business value through effective use
of data

Becoming data driven is not just a strategic move but a foundational necessity for businesses across the globe.

The transformation involves leveraging data comprehensively to inform decision-making processes, enhance operational efficiencies, and tailor products and services to meet customer needs. By properly utilising and analysing data, businesses can identify trends, predict customer behaviours, optimise their operations, and innovate with agility.

This transition, however, is accompanied by a host of initial challenges that customers face, which can range from technological hurdles to cultural shifts. This article highlights our strategic response to the evolving market landscape and customer expectations and emphasise key service areas and capabilities that empower our customers to embrace a data-driven approach.

Empowering Change: AI Technology to drive data driven innovation.

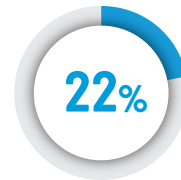
We have seen AI take a leading role in the data conversation with our customers over the past year, but this isn't their only concern or focus, the results from the Immuta survey below are echoed by our own observations. As AI takes a more prominent role in the enterprise data landscape, the need to ensure that appropriate data governance and security are more important than ever.

We have seen AI take a leading role in the data conversation with our customers over the past year.

Key Enterprise Initiatives and Priorities



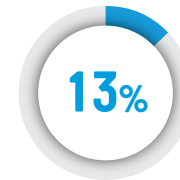
Implementing stronger data governance and security controls



Modernising data architecture



AI integration into business process



Enabling data self service



Improved data privacy

Source: <https://www.immuta.com/2024-state-of-data-security-report>



We examine the obstacles faced by businesses and demonstrate how Computacenter assists in surmounting the barriers that impede the realisation of the full potential of our clients' data.

We continually discuss with our customers the primary challenges in becoming data-driven, from:

Data management and integration of disparate data sources

many of our customers find themselves grappling with siloed data spread across different departments and systems, making it difficult to achieve a unified view of the information. This fragmentation not only hampers the efficiency of data analysis but also leads to inconsistent insights, undermining decision-making processes.

Data quality and governance

Ensuring the accuracy, completeness, and reliability of data is critical for deriving meaningful insights. However, our customers often struggle with maintaining high-quality data due to issues such as duplication, inaccuracies, and outdated information.

The scarcity of skilled data professionals

The demand for data analysts, and engineers far exceeds the supply, making it challenging for companies to build or expand their data capabilities. This talent gap is often seen to delay the adoption of data-driven practices and limit the potential benefits.

Organisations realise that adaptation through data is unavoidable.

Cultural transformation

A data-driven mindset poses its own set of challenges, Shifting the business culture to value and prioritise data over intuition or past practices requires a fundamental change in attitudes and behaviours.

Organisations realise that adaptation through data is unavoidable. Having a strong data-driven culture means that the workforce is data literate. Executive leaders are having to change behavioural patterns to drive talent and business results.

To promote successful adoption of new tools, companies are beginning to instil data literacy into their organisational culture. By introducing a steady, change management programme, customers are starting to see benefits, whilst safeguarding an organised and co-ordinated transition. This ensures little disruption to procedures, maintains high optimism, and fosters acceptance within the workforce.

Data Management

The volume of data generated daily is staggering. According to Statista approximately 329 million terabytes, or 0.33 zettabytes, of data are created each day. This amounts to roughly 2.31 zettabytes per week and 120 zettabytes annually, illustrating the immense scale of data production and the challenge that businesses are looking to undertake to manage it.

Navigating through this vast data-driven landscape highlights the importance of addressing practical concerns such as enhancing data security, ensuring privacy, and efficiently managing diverse data sources. At Computacenter we are seeing this fundamental data challenge halt or at the very least limit customers' ability to really show the value that their data can bring to the wider business. Siloed data and aging or incompatible data platforms or sources being fundamental issues in the ability to truly visualise what they have available to them.

We are working with many clients across all verticals to unpick how best to tackle this challenge, whether it is best to replatform and consolidate onto a new technology either on premises or in the cloud or look to leverage a data virtualisation capability to give a unified view of the estate without having to migrate as readily. There are many solutions to this challenge but maintaining whatever is put in place will be just as important as making the decision in the first place.

Data Quality and Governance

Ensuring the accuracy, completeness, and reliability of data is critical for deriving meaningful insights. However, businesses often struggle with maintaining high-quality data.

Due to the numerous sources from which data can be harvested, all with different data formats and controls, data can often be duplicated, unreliable and incomplete. What's more, poor data quality often doesn't reveal itself immediately. It is only when an underlying service fails or analytics delivers something clearly wrong that organisations realise that the data, they have been relying on isn't fit for purpose.

Navigating through this vast data-driven landscape highlights the importance of addressing practical concerns such as enhancing data security.

To qualify what is "good" data often entails understanding not just the reliability of the source but putting the data in context of its use and impact. Our customers often have a good understanding of specific data, for example around user or financial transactions. But as AI tools surface information from more widely dispersed and less controlled data sources, combining it with these original data sets to use it in different ways (for example to predict outcomes) can result in issues and anomalies.

To ensure data is fit for purpose businesses need to have a robust set of data quality rules that identify the key features and uses of the data itself, which if adhered to, give comfort the data is fit for purpose. These need to be carefully written and tested to ensure that they support the system or processes the data underpins, not simply about the data itself.

Data retention is also key. Whereas before it was enough to know what data that was being stored (for example, personal data for GDPR) now organisations need to know how and where data is being stored for security and resiliency purposes. In financial services for example, regulators are expecting to see audit trails back from the activity the data drives to the data source itself. Our customers therefore need to document and control these audit trails.

These requirements call out for a governance function. This data governance needs to cover not just the data itself, but also the tooling, infrastructure and processes surrounding the data use. This can help avoid data sprawl, tooling duplication and ensuring designs make the most of existing data lakes and controls.

Data quality and governance often gets lost in the excitement of use cases and the potential benefits. It is only when a process is unavailable, or conclusions clearly wrong that people try to address it. However, this can come at a cost as by then you're dealing with process failings that can have a much larger business impact.

High Performance Architectural Considerations

The data market is also seeing a shift in how enterprises are starting to consume their data, with technology focused on fulfilling edge use cases really coming to the fore, processing data closer to its source. This shift in moving the processing closer to the source is critical for handling the amounts of data generated by contemporary digital activities and IoT devices, reducing network traffic and transportation bottlenecks wherever possible to give the performance that the business so desperately needs. If we then layer on the core data center, public cloud, and the desire for multi-cloud data mobility, then this adds yet more governance and performance concerns that need to be mitigated through architecting the correct data platform to cater for your specific enterprise needs. The data architecture should be aligned to the use case that is being driven, enabling the data to be consumed as close to the source of its generation, this is an area that is often overlooked when looking to show value quickly.

AI Adoption

Leveraging data through business focussed AI driven endeavours is where many are looking, but to achieve that effectively we first need to understand the underpinning data assets, after all, there is “no good AI without good data”. In our dialogues with our customers, we aim to present our advice in this domain, illustrating how companies can demonstrate initial worth while and simultaneously identifying which data holds genuine value and the most effective ways to utilise it.

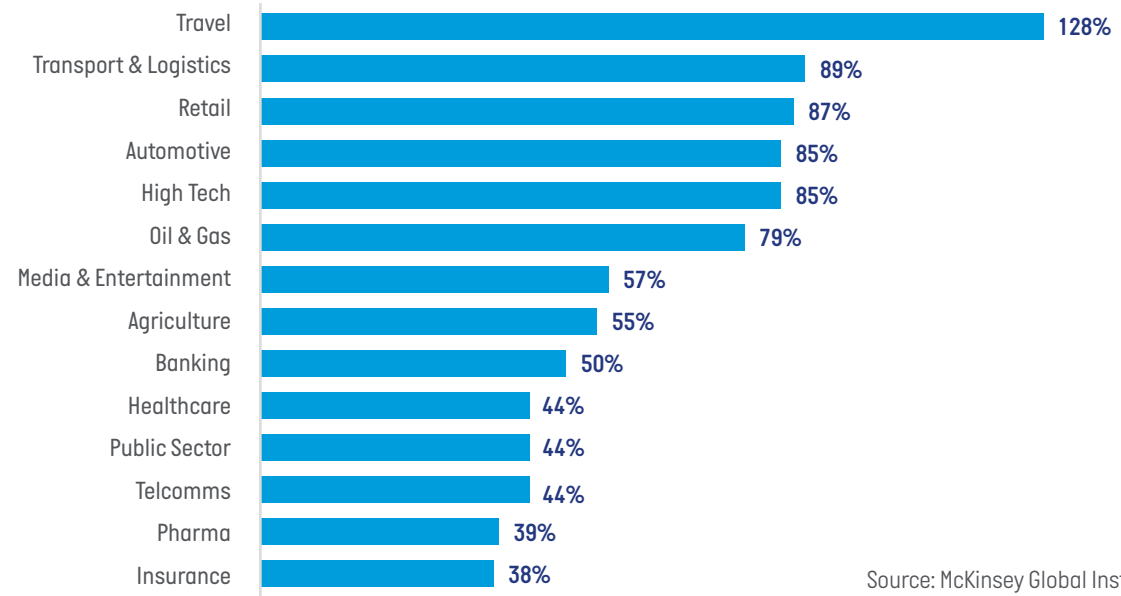
While the journey towards becoming data-driven is fraught with challenges, the benefits it offers in terms of enhanced decision-making, operational efficiency, and customer satisfaction are unparalleled. By addressing these challenges head-on, businesses can unlock the full potential of data and position themselves for sustained success.

Technology and data challenges such as the ones mentioned through this article are typical in preventing customers from showing the value of AI within their businesses. Uncovering the data that is needed for a particular use case or business challenge, and more importantly ensuring its quality, lineage and ongoing lifecycle management is a fundamental need for its sustainable use and the overall accuracy of the outcome. We spend significant time with customers in this space, ensuring that the data is “good” and it is “right” for the use case that it is being leveraged for.

As can be seen from the graphic below, incremental value increases through the adoption of AI over more traditional techniques across industries are, or can be significant, but it can take time, and relies on the above areas to ensure that the results are truly achievable.

The positive impact that well governed AI can bring to businesses are clear, both internally facing, through operational efficiency measures as well as externally facing, through its ability to grow revenue reduce time to market.

Potential Incremental Value from AI over other Analytical Techniques



Source: McKinsey Global Institute Analysis

AI and its use are coming under the microscope with the development of the EU Artificial Intelligence Act and the closer to home UK AI Regulation Framework, so whether our customers operate within the single EU market or in the UK they will be expected to abide by the guidelines and frameworks that are being put in place to ensure correct ethical standards are met through accountability, fairness, transparency and safety.

We are yet to see the full impact of these impending acts and how our customers are likely to be affected, but we need to be aware of the implications in not adhering to the standards being set, and the data, and use cases being used to drive these endeavours forward.

[I EU Artificial Intelligence Act](#) >

[I UK AI Regulation Framework](#) >

Conclusion

At Computacenter, we look to take a holistic view of the data driven landscape and the activities that our customers are looking to achieve in this area. Business value through AI cannot be fully realised without the underpinning capabilities that we have spoken about here. Good data management is a foundational requirement to drive data strategy and feed into AI management, governance, and standards. Ensuring that the architecture across the enterprise, from edge to core to cloud, allows for the evolution of the business in the long term and includes an optimised operational management and data delivery capability is fundamental for ongoing success and the ability to deliver against wider business goals. Any technology and software choices should be made by ensuring that they cater for future needs by driving simplicity, standardisation and above all performance to the users that need to leverage the data that flows through it.

Our data assemsnet and distribution solutions serve as an essential foundation for our customers, providing them with the assurance that any data-centric initiative is poised for greater success.



Office of the CTO

The Office of the CTO (OCTO) team leads in the exploration and application of technology products and delivery methodology to aid the digital transformation of our customers.

As a team of cross-functional technologists with extensive industry and IT experience we deliver thought leadership, advice and real-world implementation experience to help our customers achieve their goals.



Computacenter (UK) Ltd
Hatfield Avenue, Hatfield, Hertfordshire AL10 9TW, United Kingdom

computacenter.com
+44 [0]1707 631000