



Data and analytics
Riding the digitalisation wave

July 2021



The role of analytics in the digital world

Data analytics matter

Data is the new capital of the global economy. As organisations seek renewed growth, stronger performance and more meaningful customer engagement, the pressure to exploit data is immense.

In 2018, the global big data and business analytics market was valued at USD168.8 billion. It is forecasted to grow to USD274.3 billion by 2022.¹

The current COVID-19 pandemic has showed that digitally native organisations that are “insight-driven by default” show much higher resilience and are able to tighten their dominant market positions, even growing share value while stock markets tumble. These organisations are equipped to manage the crisis better, and are expected to recover and excel faster once markets and regulatory efforts return to normal.

Having data and analytics at their core, insight-driven organisations are prepared to make the best decisions in an efficient manner. It enables them to manage core business operations in the most cost-effective way and react on a day-to-day basis.

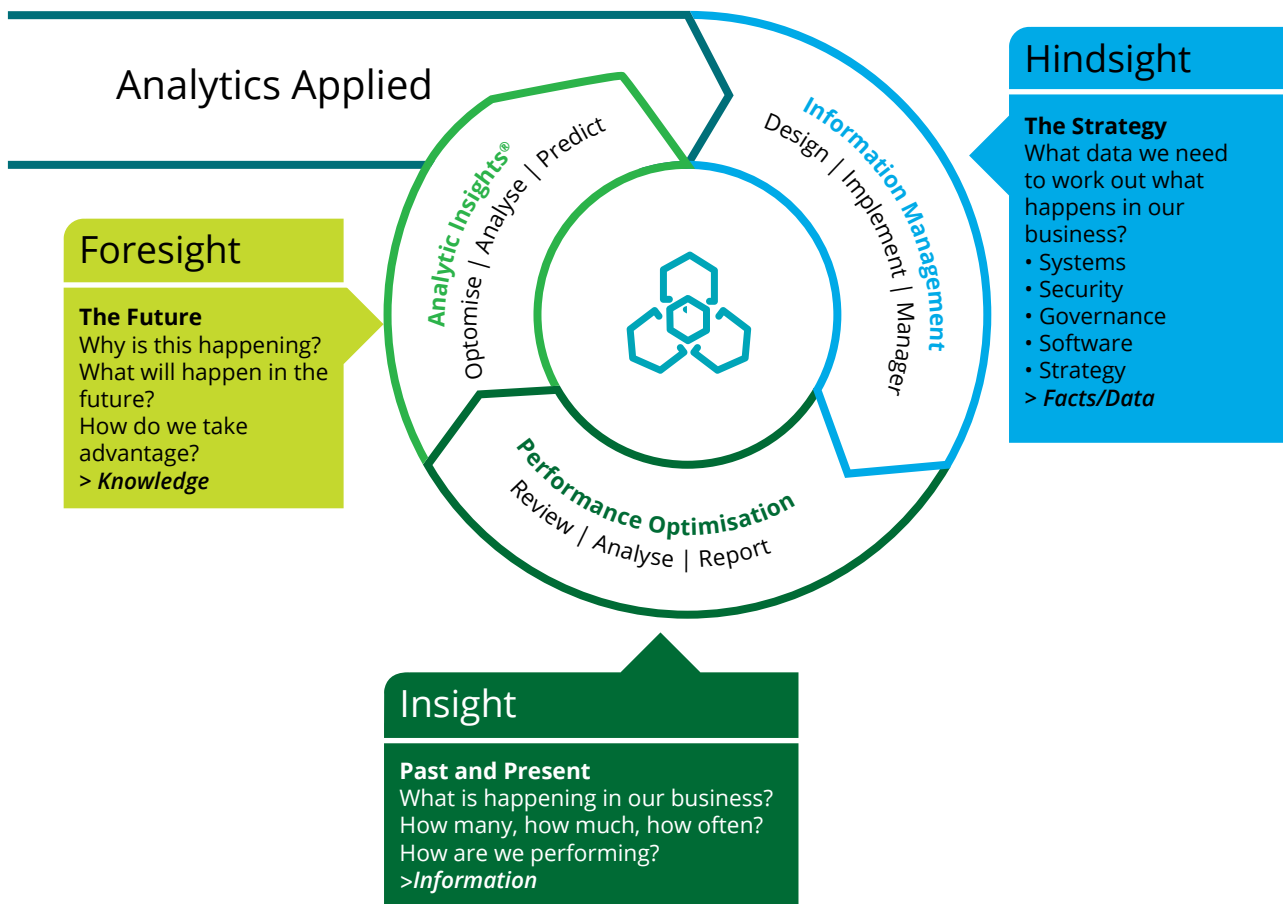


1. Revenue from big data and business analytics worldwide from 2015 to 2022(in billion U.S. dollars), 2020, <https://www.statista.com/statistics/551501/worldwide-big-data-business-analytics-revenue/>






Are you data rich but insight poor?

Using analytics to convert data into insights and make smarter decisions

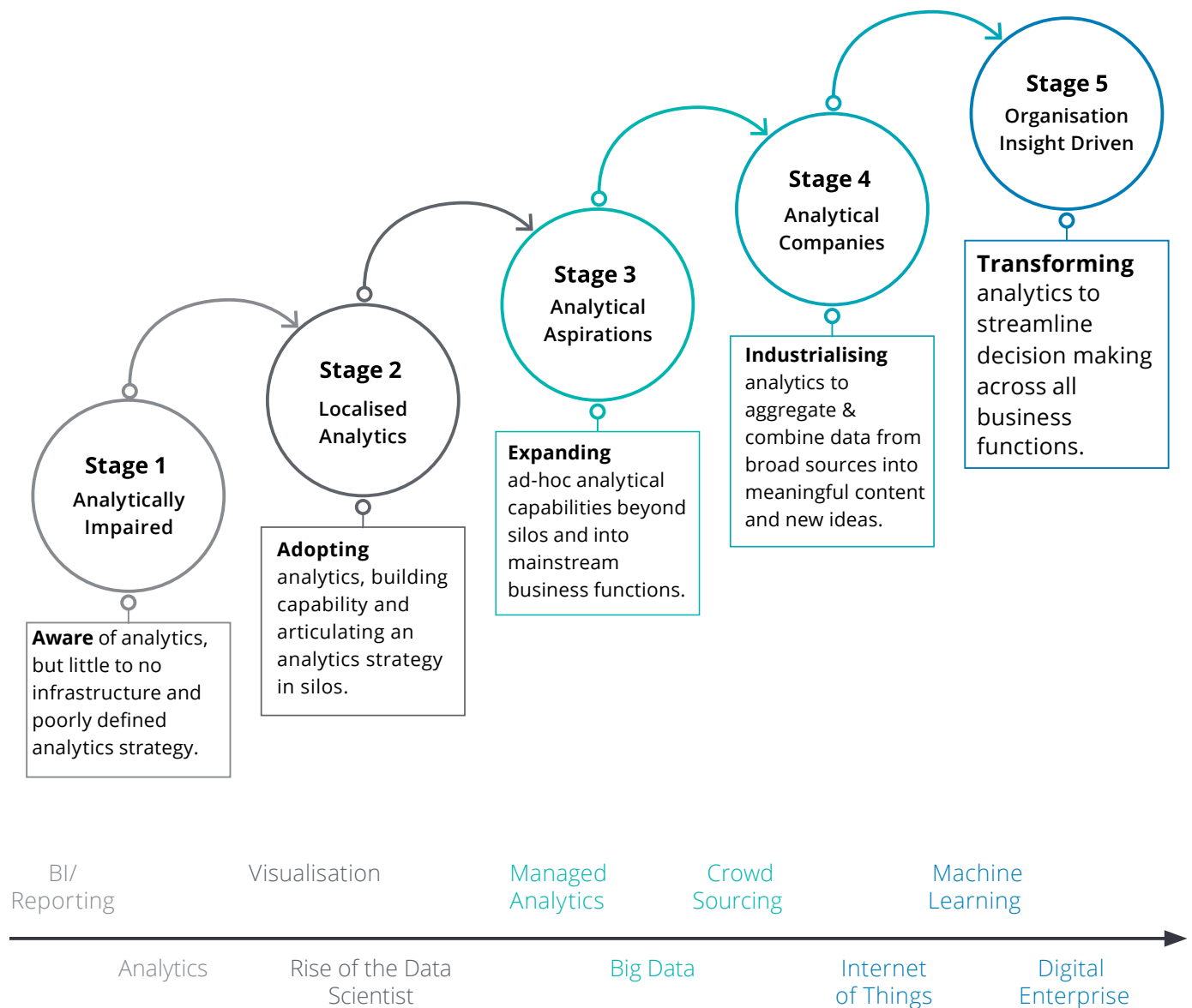
Analytics is the practice of capturing, managing, and analysing data to drive business strategy and performance. It includes a range of approaches and solutions, from looking backward to evaluating what happened in the past, to forward-looking scenario planning and predictive modelling.



How can analytics generate actionable insights?

Business functions	Applying analytics...	Use case example
Customer & growth 	...to enhance customer lifecycle, sales and pricing processes, and overall customer experience	<ul style="list-style-type: none"> • Detailed segmentation to better target cross-sell and up-sell activity • Understanding customer profile to improve pricing & risk calculations Predicting the impact of different compliance actions • Identifying and managing the most profitable customers (customer lifetime value) across a portfolio of products and services
Operations 	...to provide insights across the organisation's value chain	<ul style="list-style-type: none"> • Analysing spend to identify efficiencies across the value chain • Monitoring process to identify potential synergy opportunities to reduce cost and effort • Identifying candidate locations for new branch based on a range of geospatial factors
Finance 	...to measure, control, and optimise financial management processes	<ul style="list-style-type: none"> • Consolidating financial reporting with other data to provide multi-dimensional views and more accurate financial forecasts • Simulating the impact of changes in the financial markets (e.g. stress testing of the banking system) • Analysing funding and capital requirement to ensure sufficient liquidity
Risk & regulatory 	...to measure, monitor, and mitigate enterprise risk	<ul style="list-style-type: none"> • Identifying and investigating instances of fraud and error in payment systems • Monitoring compliance with financial regulations (e.g. sanctions, anti-bribery & corruption laws, etc) • Identifying cyber-security breaches from patterns of user behaviour
Talent management 	...to enhance and optimise workforce processes and intelligence	<ul style="list-style-type: none"> • Reducing overtime by optimising staff scheduling • Forecasting demand to improve workforce planning • Identifying early indicators of attrition to improve retention • Analysing employee data to identify those most at risk of workplace hazard

What analytics maturity stage is your organisation at?



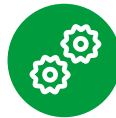
There is no one-size-fits-all approach in adopting analytics at work. Organisations at different maturity stages need to look into their current capabilities and strategise according to business requirements. This will allow organisations to achieve effective resource allocation and maximum return on the investment in the given period of time.

What makes analytics difficult to be adopted?



Data

Confidence in data is low due to inconsistent definitions and differing answers to the same question. The reluctance to share data also hinders access to timely data.



Technical perception

Image is 'techy', complex, and related to math and statistics, and hence difficult to comprehend or thought to be IT-only.



Cultural change

The bigger and older the organisation, the more difficult it is to drive a cultural change or analytics transformation.



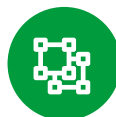
Analytics skill shortages

Talent is a critical hurdle in analytics adoption. The skill gap might delay some of the analytics implementation and integration.



Insight communication

Marred by jargons, and complicated tables. The results and insights are often 'lost in translation'.



Poor implementation

Analytics is developed in silos and data is duplicated across the organisation. It lacks implementation vision and or strategy for enterprise-wide integration.

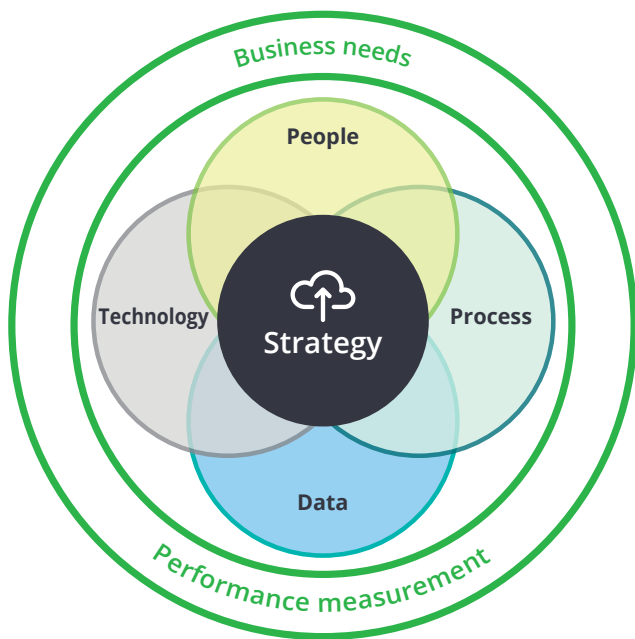


Inaccurate metrics, expectations, models

Over simplistic models, overconfident analysts, lack of clarity on outcomes with inaccurate assumptions have led to incorrect results.

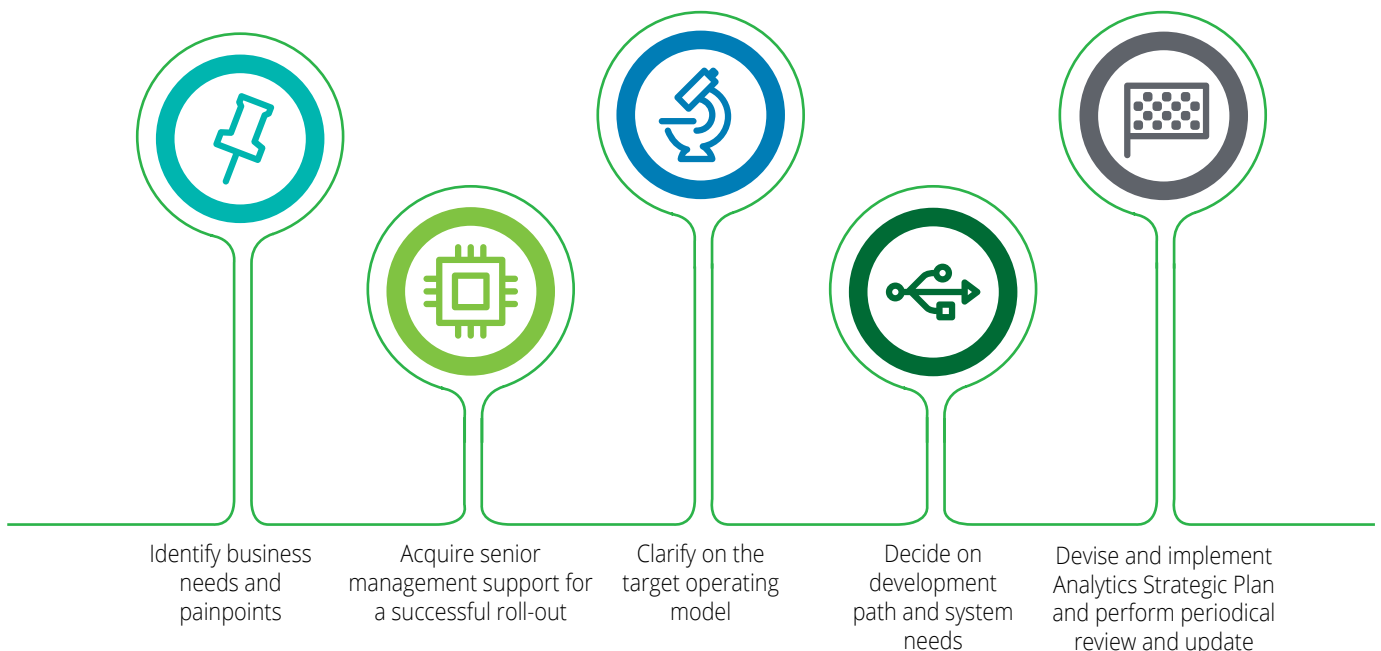
How do we kickstart the analytics adoption journey?

In the analytics adoption journey, the five building blocks for transformation are: Strategy, People, Process, Technology, and Data. Each building block plays different roles and importance depending on the analytics maturity level of the organisation.



Familiarising yourself with the five building blocks in the transformation journey enables you to anticipate and manage risks towards a successful journey.

Illustration of an analytics adoption journey

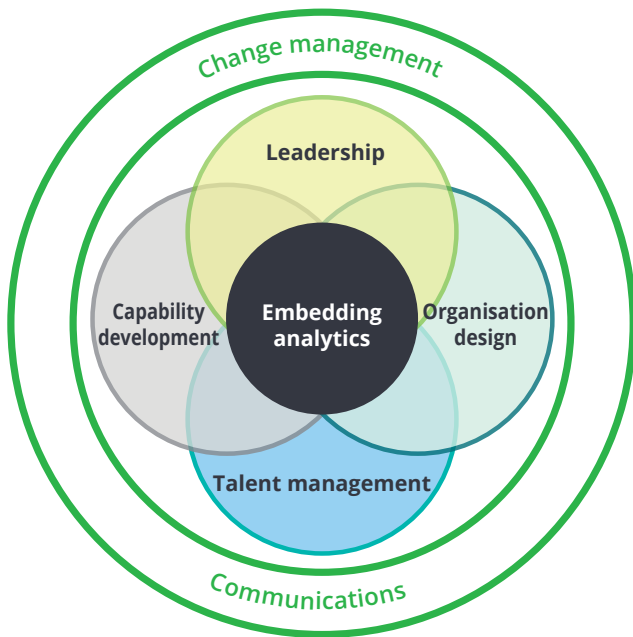




Building blocks
for analytics
adoption

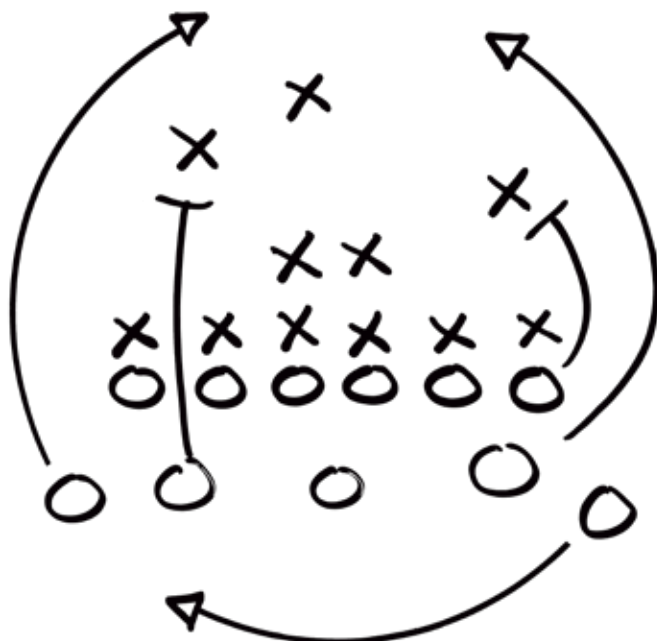
Building blocks for analytics adoption

Strategy



To truly embed analytics, focus is required in 5 key areas:

- Leadership
- Capability development
- Analytics culture
- Talent management
- Change management



Setting strategy requires executive sponsors and champions to carefully define their analytics objectives, identify desired outputs, and align the analytics journey with the organisation's broader goals, business plans, as well as win strategy.

The strategy components should include describing the organisation's vision, building a business case, committing to continuous improvement, gaining and maintaining key stakeholder support.

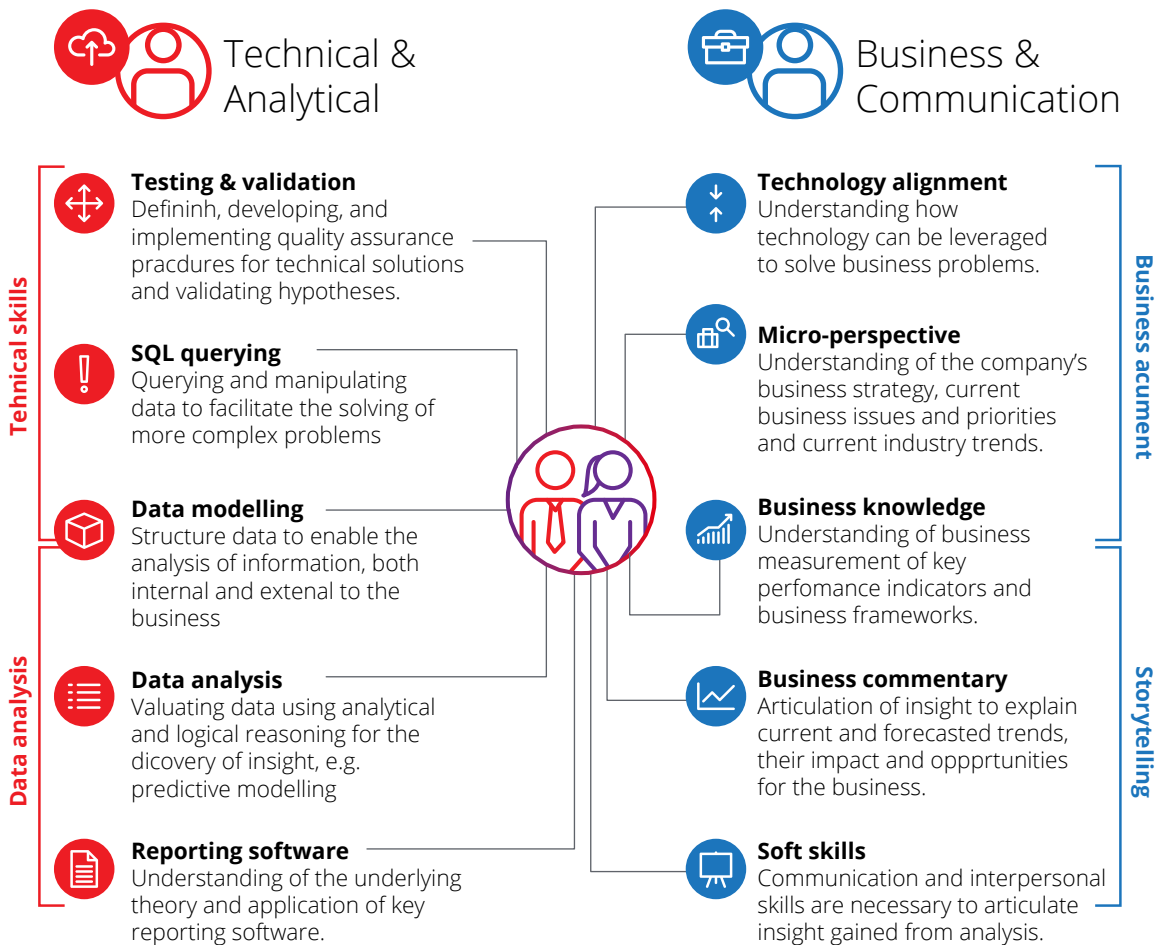
Building blocks for analytics adoption

People

Success also hinges on organisational ability to create purple teams — those that combine analytics-savvy people (red skills) with seasoned business communicators (blue skills) to deliver actionable business insights.

Simply stated, organisations that try to win at analytics by hiring predominantly red talent - data scientists and data engineer may have difficulty translating skills into results. The red people cannot deliver value without a business use case.

It has now become eminently clear that blue people - change managers, business owners and subject matter experts are required to promote a culture that embraces analytics insight to actively drive decision-making. Organisations have to assess their current capabilities and strike a balance between the red and blue talents such that business needs are supported by the analytics team. In the process of doing so, organisations may also have to consider an organisational structure that facilitates smooth collaboration between the two groups of talents.



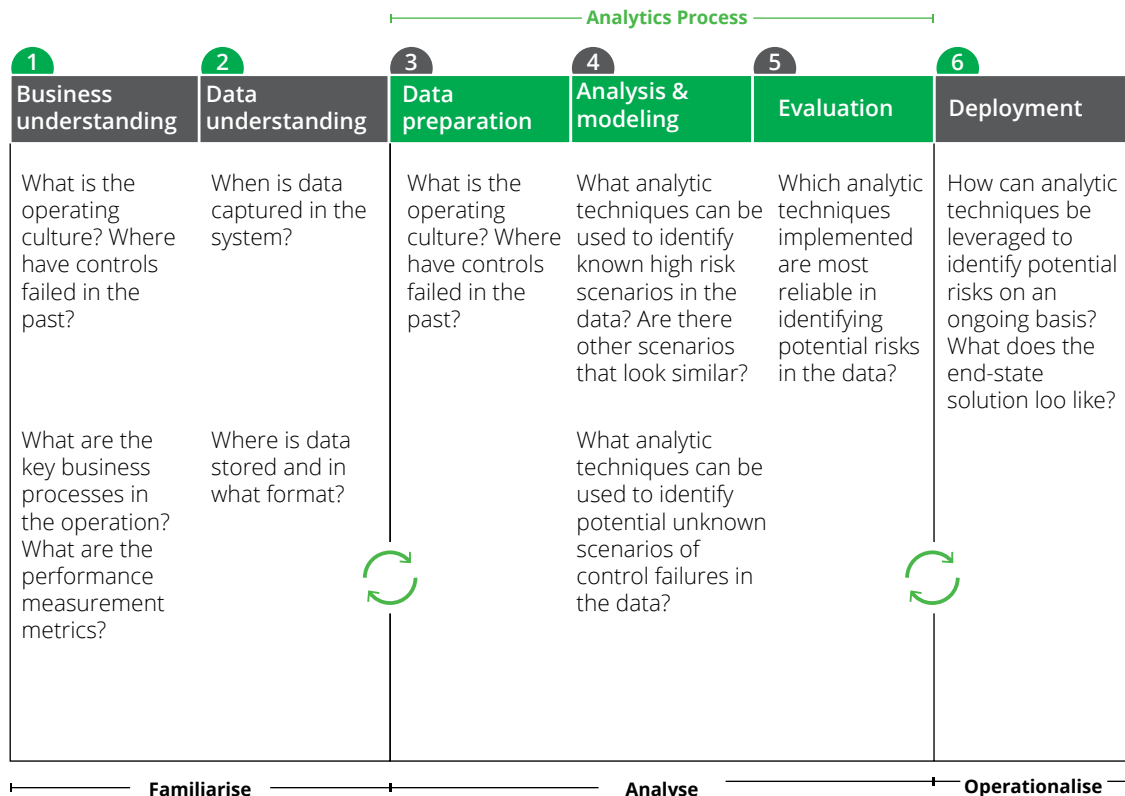
Building blocks for analytics adoption

Process

Beyond capturing, certifying the accuracy of, and distributing the right data, organisations need processes to turn data into insights, and to act upon that insight.

This involves more than generating retrospective insights limited to silo-ed teams or functions. Instead, it enables prescriptive insights capable of guiding an organisation's decision-making. In developing this capacity, organisations need a solid governance framework and operating model, embedded measurement frameworks, and a feedback mechanism.

To encourage analytics adoption, business processes need to be flexible for users to make changes and cater for data collection, technology implementation and insight-driven action. Key Performance Indicators (KPIs) generated using analytics insight can be introduced as part of the adoption process and foster an analytics culture.



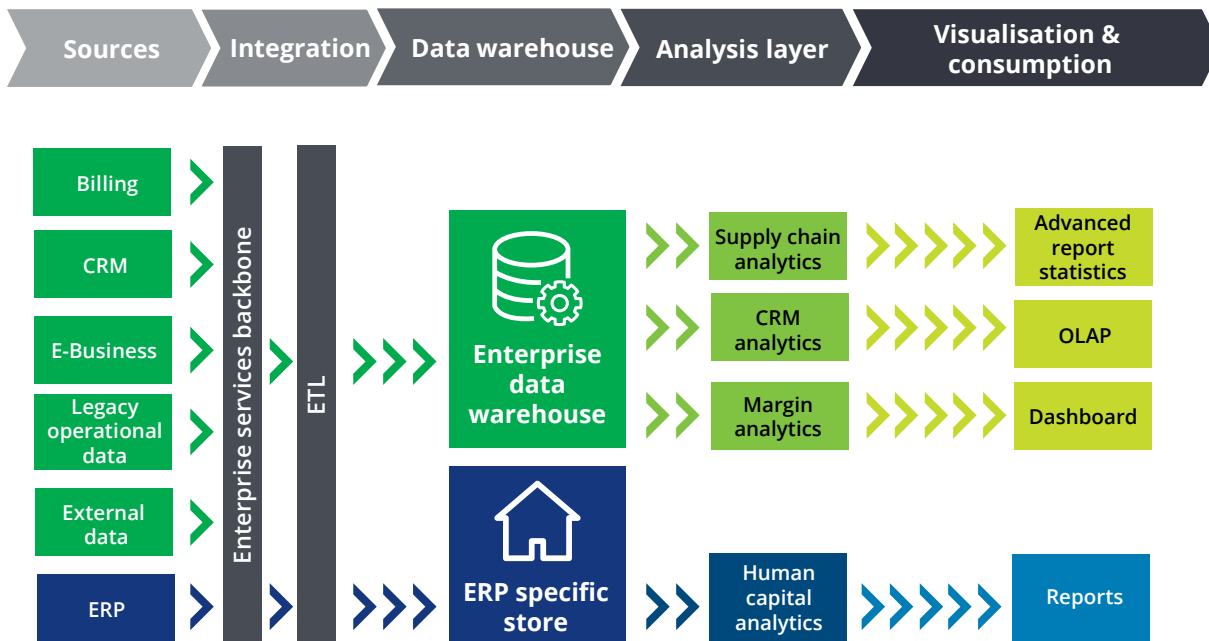
Building blocks for analytics adoption

Technology

With digitisation happening at full speed in the current business environment, collecting data has never been easier. Ranging from customer phone calls, sensor monitoring, to process tracking, data can be generated at any time with the right tools for analytics work.

Technology in analytics refer not only to the physical hardware, but the software which speeds up digitalisation and enable analytics work to be performed. More importantly, setting up a well-structured technology infrastructure and digitalised process allows quality data of high volume to be readily available for analytics.

Furthermore, identifying the right Business Intelligence tools for specific business function is essential as the requirements for business use case may vary significantly. Currently there are many Business Intelligence tools on the market catering to different user needs. For example, tools to create business dashboards, to build advanced models, as well as to manage data.



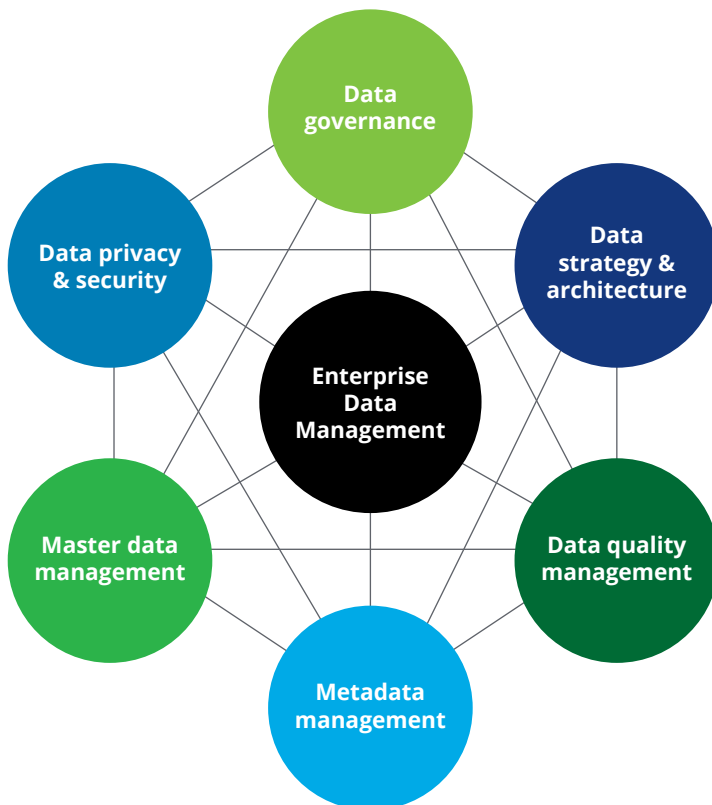
Building blocks for analytics adoption

Data

Analytics rely heavily on the quality of data available to produce meaningful insights, and people within the organisation should work to ensure that data is secured and well managed. This ensures investment in analytics brings sustained returns.

Data management and internal controls are especially critical to ensure that the data is accurate and complete at the input stage, and any anomaly can be quickly detected before data reach the final users.

In addressing their data requirements, organisations should also put well-designed information models in place, adopt a realistic approach to data quality, ensure regulatory compliance, and carefully consider the ethical implications of how they use data.



Enterprise data management covers the entire data lifecycle, ensuring the correct data is input at the entry stage, inaccurate data is cleansed at the maintenance stage, and the right data is acquired by its intended users at the analytics stage.



Case study

Becoming an insight-driven organisation, one step at a time



As the age of disruption continues to vastly alter business realities, non-digital natives are scrambling to keep up. The knee-jerk reaction to invest in technology solutions and a horde of red talent is understandable.

However, it's simply not enough. It has become increasingly clear that organisations can only succeed in their quest to become an Insight-Driven Organisation if they successfully engage the power of their people, both red and blue.




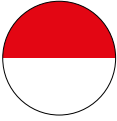
There is no one-size-fits-all approach in adopting analytics at work. More often than not, organisations with an overly ambitious plan may suffer from trying to do too much too soon.

The analytics adoption journey can be a complex undertaking, starting with a complex process and attempting too many initiatives at once may be overwhelming and confusing.

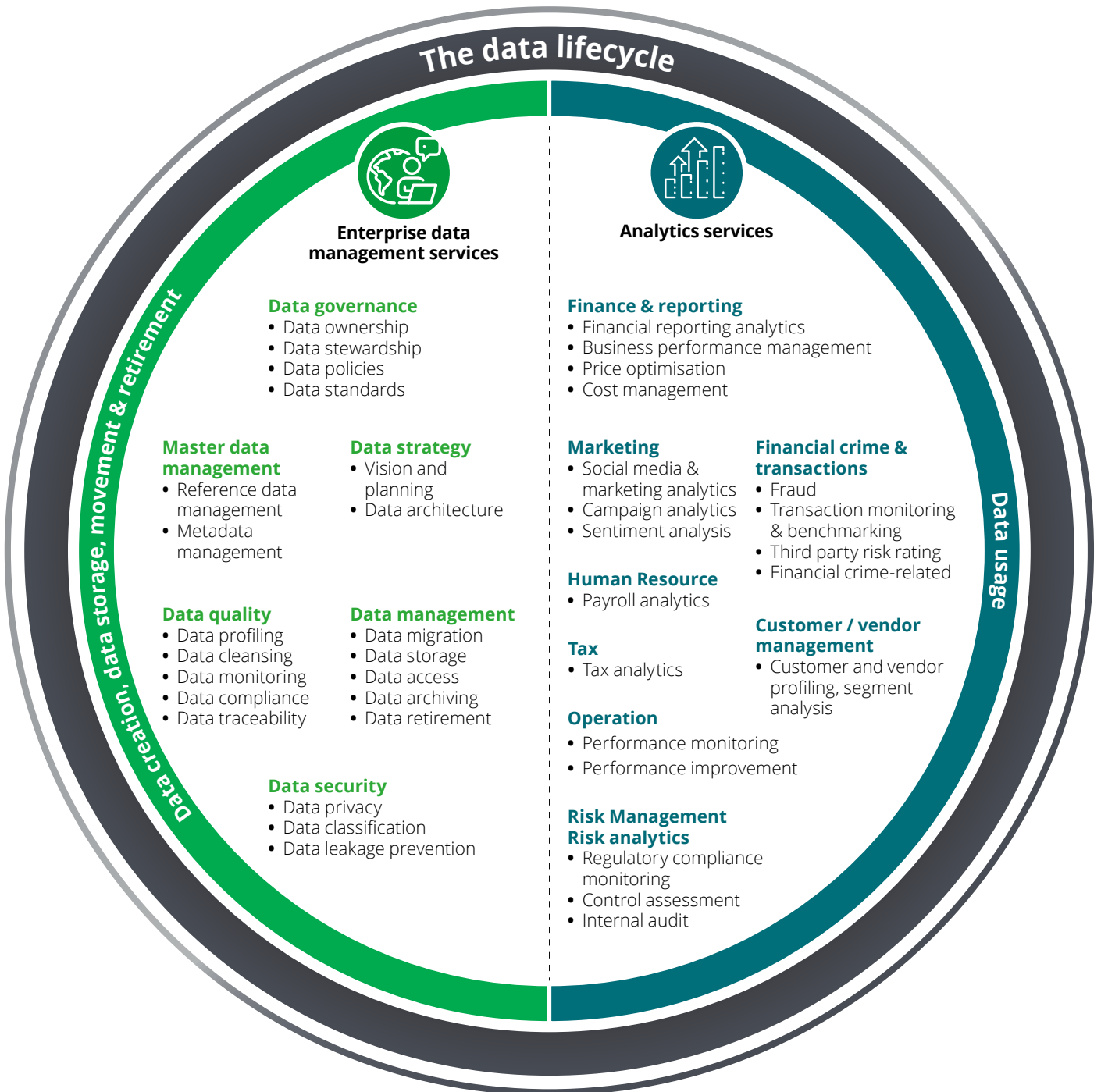
The best approach is to focus on the basic, build a solid foundation around business use case, and from there, more advanced capabilities can be developed.

In this aspect, knowing an organisation's analytics maturity level and current business need is essential. By strategising with the five building blocks - Strategy, People, Process, Technology and Data, organisations gain the ability to roll out analytics projects and build out their analytics capabilities efficiently and in a more cost-effective manner.

Selected case studies from clients in the SEA region

Country	Project background	Value to the client
Malaysia 	<p>The banking client requires assistance from Deloitte to conduct an AML/CFT Institutional Risk Assessment and Enterprise-Wide Risk Assessment.</p>	<p>Deloitte's Forensic Analytics team developed a dashboard to provide visualisation of the AML/CFT activities such as Transaction Monitoring, Institutional Risk Assessment, Customer On-boarding, and Cash Threshold Report.</p> <p>Data analytics was brought in to develop a dashboard for ongoing monitoring and reporting.</p>
Malaysia 	<p>An industrial research institution has engaged Deloitte to rollout a cost management initiative and Enterprise Resource Planning implementation with the aim to utilise data for better resource allocation.</p>	<p>Deloitte was engaged to analyse the existing process and setup the configuration for the new Enterprise Resource Planning platform.</p> <p>The team designed a reporting dashboard to improve visibility on costs incurred and business profitability. With the data collected, a detailed analysis on cost drivers was performed to redesign cost allocation basis and assess business profitability at group level</p>
Singapore 	<p>The superannuation fund has embarked on a digital transformation journey encompassing Operating Model for Digital, Data & Analytics and Technology for an Asia Pacific Superannuation Fund.</p>	<p>Deloitte partnered with the superannuation fund to design the required changes to its operating models across: Customer experience, Customer servicing, Digital marketing, Data & analytics, and Technology.</p> <p>The future operating model design will ensure that the client has the right processes and skills in place to maximise the investments made in new technology and deliver the desired benefits.</p>
Indonesia 	<p>A multinational plantation company has engaged Deloitte to develop and implement a Master Data Governance framework to facilitate resolution of data issues across multiple business functions.</p>	<p>Deloitte developed a data governance target operating model for the client and laid out the framework with a data governance organisation structure, roles and responsibilities matrix, policies and procedures, and data standards for customer, vendor, and material master data.</p> <p>The data governance team also assisted the client in enhancing data quality as well as setting up a new platform to govern the client's master data creation and changes.</p>

Data and analytics one-stop solution centre



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