How does data and analytics work?

KPMG Türkiye

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Data and Analytics (DnA) should be powered by digital solutions delivering business outcomes in partnership with the business

Today's technology

Today's approaches to **manage data and ensure its quality** tend to be labor intensive, simplistic, and rule based. While **marginal improvements** can be achieved in certain areas, these traditional approaches can't efficiently scale to handle today's immense data sets, nor are they nimble enough to adapt to the **needs of a rapidly changing business landscape**.

New world

Data is at the heart of **new business models, technologies, and an ecosystem of companies** providing almost anything as a service. Businesses worldwide are investing billions in an effort to **unlock** its **secrets** and **enormous disruptive potential**.

Organizations will need to use **new approaches** that apply mainly AI, machine learning, and even deep learning for **core data and analytics matters**.

Workflow
— Business process delivery

ERP
— Enterprise resource planning
— Data warehousing

Virtualization
— Virtual machines

Enabling mobile
— Enabling enterprise applications on mobile devices

AI & automation
— RPA
— Cognitive automation
— AI & machine learning

Mobile
— Bring your own device
— Internet of things (IOT)
— Smart devices

Cloud
— Software & application dev
— Everything as a service (EaaS)

Cyber security
— Protect and survive
— Cyber insurance

Advanced analytics
— Predictive analytics
— Business intelligence
— Data mining and big data

Blockchain
— Payments and transactions
— Identity management
— Digital wallets

API
— Everything joins up
— Substantial programmable web interfaces publicly available

Augmented reality
— Physical world becomes digital

An ecosystem built to provide advanced insights and make faster, relevant and real-time business decisions

Data, analytics and intelligent automation are **fundamental to everything that we** do to gain new insights and help drive successful business outcomes. Based on this fundamentals, we leverage artificial intelligence to **enhance, accelerate, automate and augment** business decisions and processes that drive growth and profitability.

By this way, we embrace the potential of data-driven technologies and understand it must be carefully cultivated to become a trusted core capability.

Data

Identification of the right internal and external data sources, and use of advanced technologies to transform and visualize data to provide advanced insights and make faster, relevant and real-time business decisions.

Analytics

A combination of analytics experience, trustworthy data, and industry/functional knowledge to develop continuously self-improving solutions, and by leveraging artificial intelligence, creating trusted solutions to help business leaders gain new insights and make better and faster business decisions with confidence.

Intelligent automation

Underpinned by artificial Intelligence, RPA and Data and Analytics, use of intelligent automation to redefine business and operating models as well as offer new ways to build competitive advantage by accelerating automation strategies and bring knowledge and practical experience at scale.

Artificial intelligence

Through the AI ecosystem; enhance, accelerate, automate and augment decisions that drive growth and profitability. AI combined with deep industry and analytics expertise to embrace intelligent technologies confidently and responsibly.
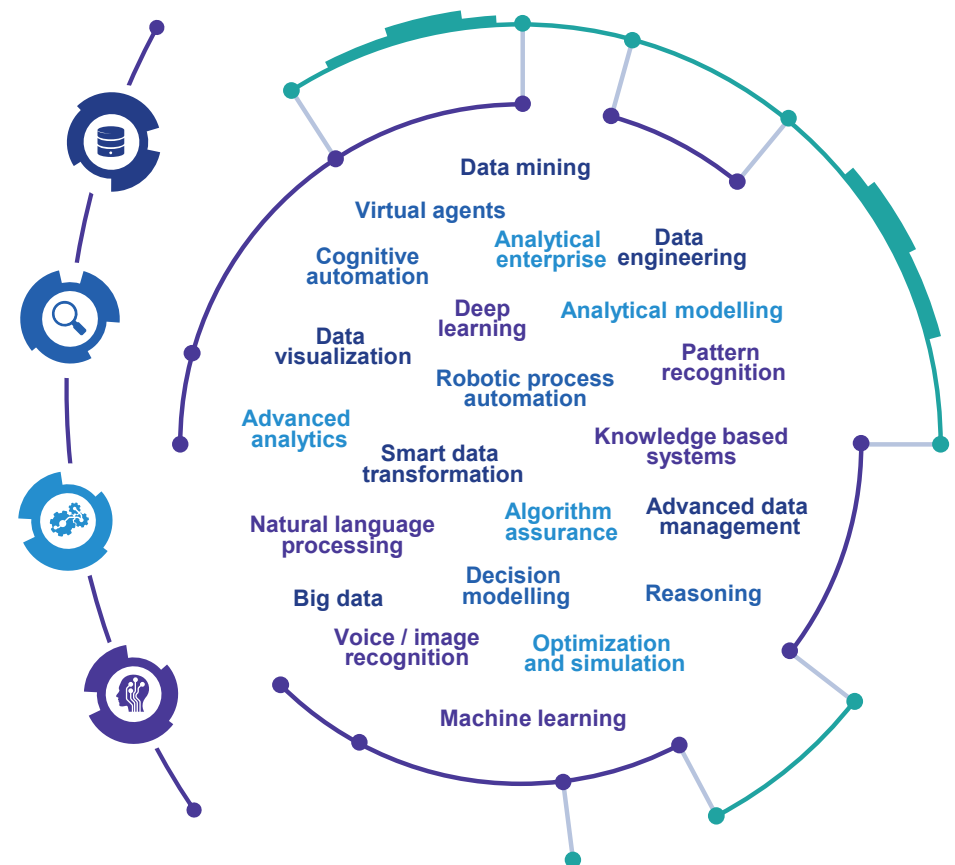
# Five key points for generating business value from DnA

Business has fundamentally changed – need to review strategy and vision to become a data-driven organization driving sustainable growth and competitive.

A data-driven organization embeds the ability to harness data in every aspect of its business, including **how decisions are made, how processes are operated**, and **how people are enabled**.
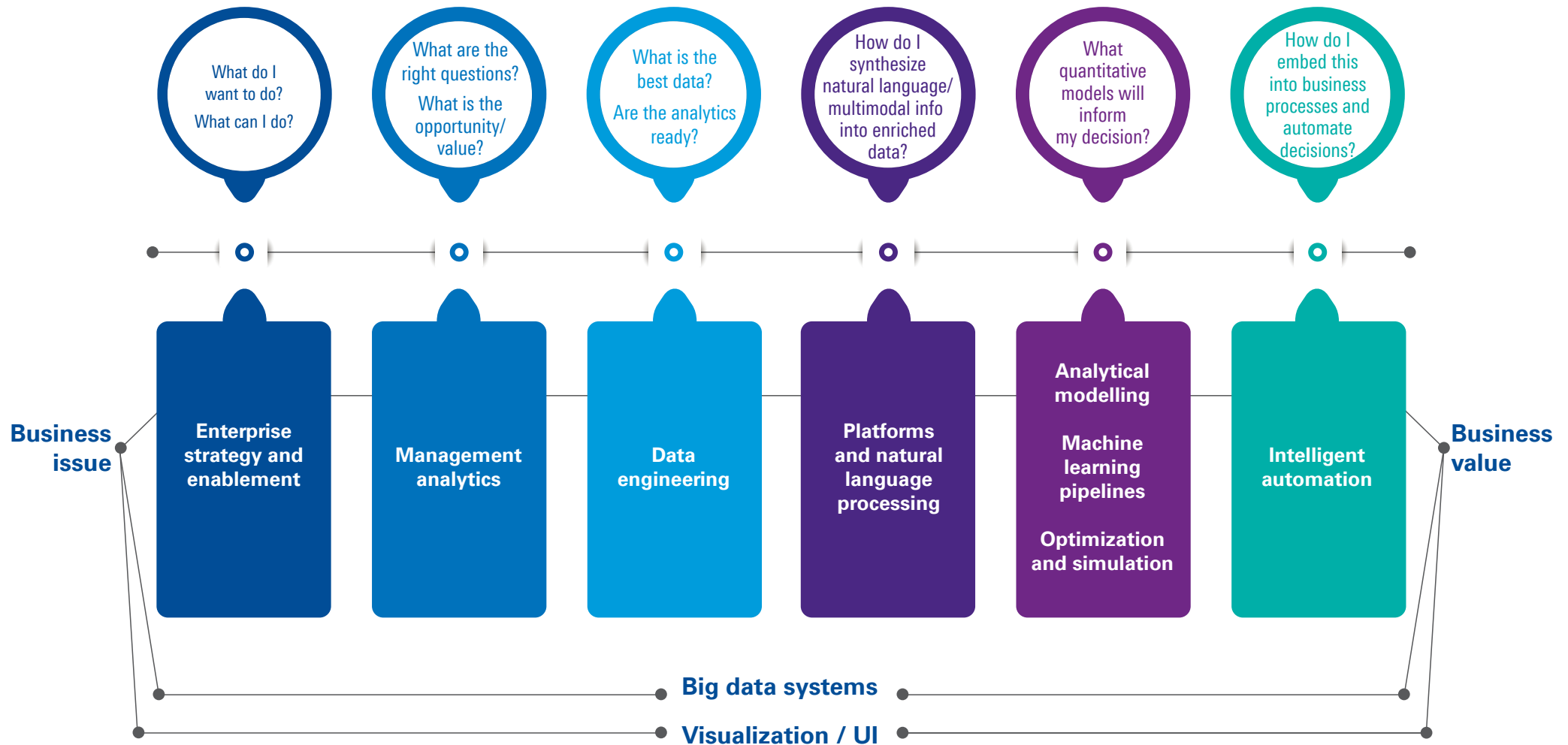
Data is raw material that becomes valuable through the use of analytics. Big Data requires advanced analytics and technology to capture the value.

Data and analytics is not simply about technology. A business problem orientation helps to zero in on the **right data and apply the right analytics** to generate tangible value.

New opportunities, new risks – while data is a valuable asset, new uses of it pose new risks – **organizations need to carefully balance** them.
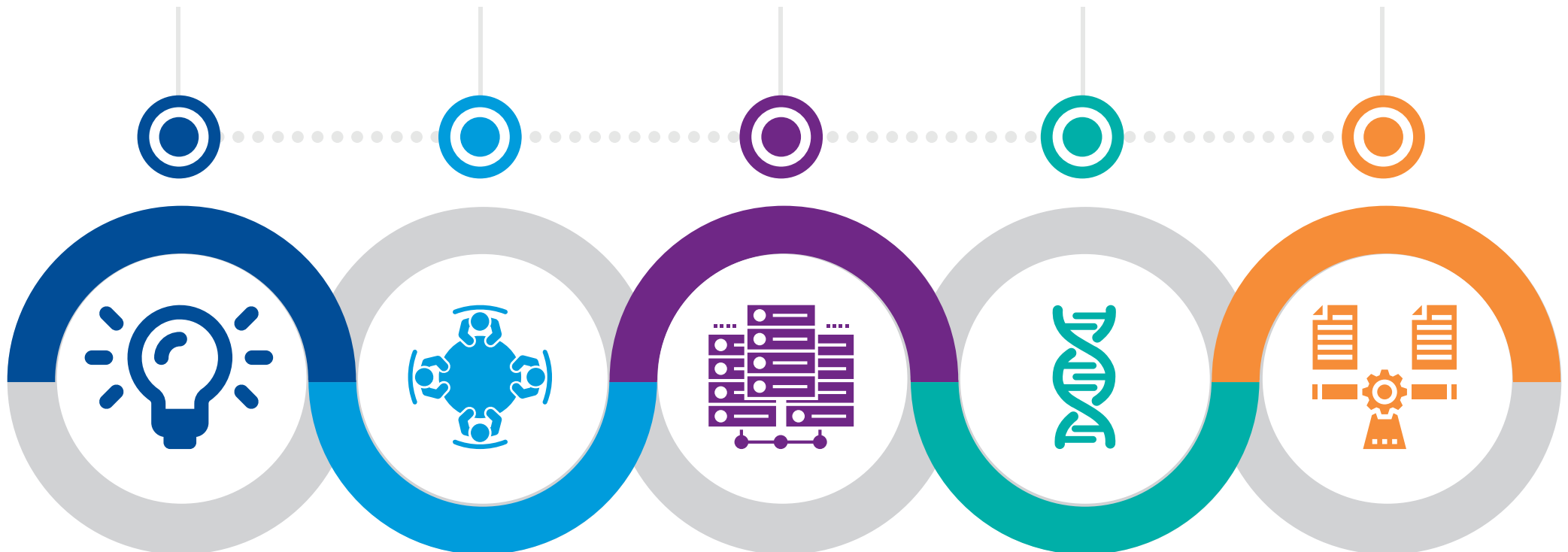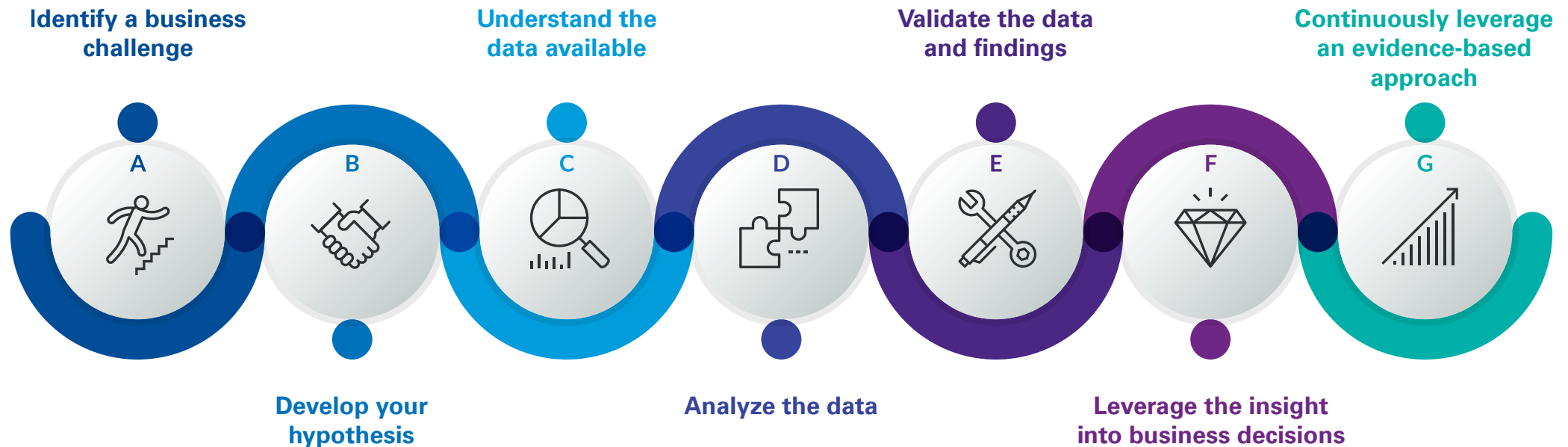
Creating a business value from the business issue in big data/data lake systems using analytics like visualization/UI

What do I want to do? What can I do?

What are the right questions? What is the opportunity/value?

What is the best data? Are the analytics ready?

How do I synthesize natural language/multimodal info into enriched data?

What quantitative models will inform my decision?

How do I embed this into business processes and automate decisions?

Business issue

Enterprise strategy and enablement

Management analytics

Data engineering

Platforms and natural language processing

Analytical modelling

Machine learning pipelines

Optimization and simulation

Intelligent automation

Business value

Big data systems

Visualization / UI

DnA combines new tools and techniques to convert data into insights that enable better, faster decision making

A DnA solution that enables client management to identify irregularities and opportunities for improving efficiency and effectiveness in operational and financial processes. We work to generate insights that drive profitable growth, risk mitigation, improve business confidence and speed to market, and improve your performance and seeks to optimize efficiency.

How does DnA work?

Identify a business challenge

Understand the data available

Validate the data and findings

Continuously leverage an evidence-based approach

A   B   C   D   E   F   G

Develop your hypothesis

Analyze the data

Leverage the insight into business decisions

Data and Analytics…

…examines of raw data, with the purpose of drawing conclusions about that information that are meaningful and consistent

…allows companies to make evidence-based decisions and verify/disprove existing models and theories

…goes beyond traditional business intelligence to discover deeper insights, make predictions, or generate recommendations

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