Deloitte.

# Leaders of the Next Decade

## Who will come on top in 2020 – 2030?

# Organisations that defined this decade (2010's)?

amazon.com

mastercard

KHAN ACADEMY

airbnb

SONOS

NETFLIX

TESLA

smartcity barcelona

Google

UBER

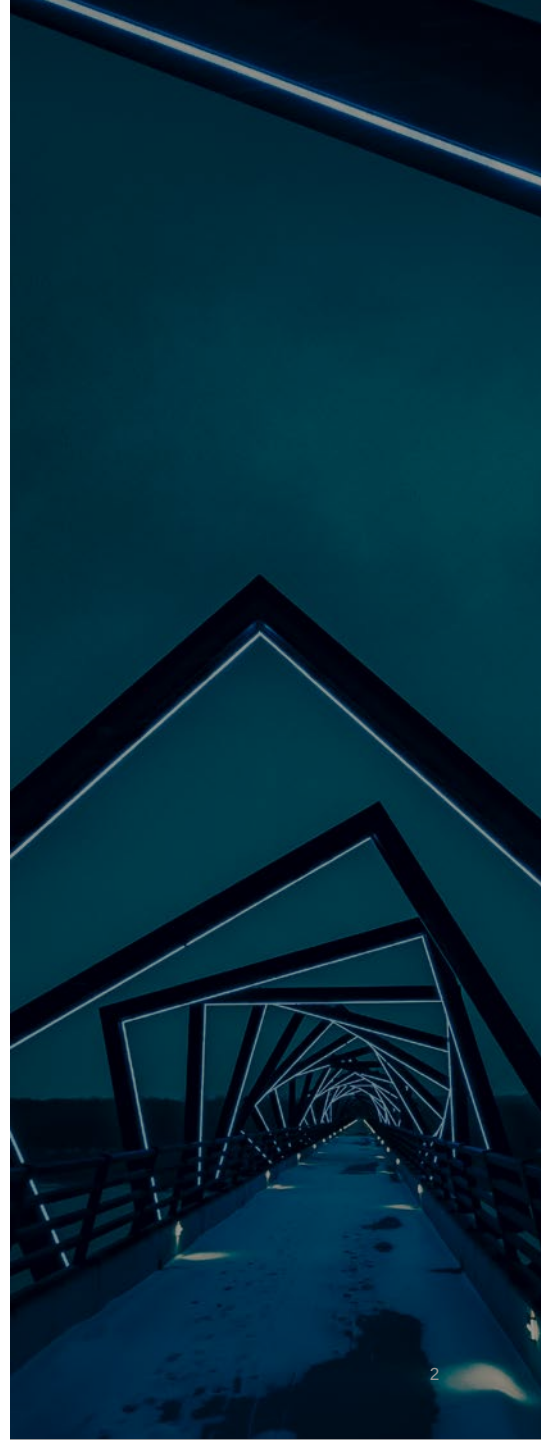
TRANSPORT FOR LONDON
EVERY JOURNEY MATTERS

TD

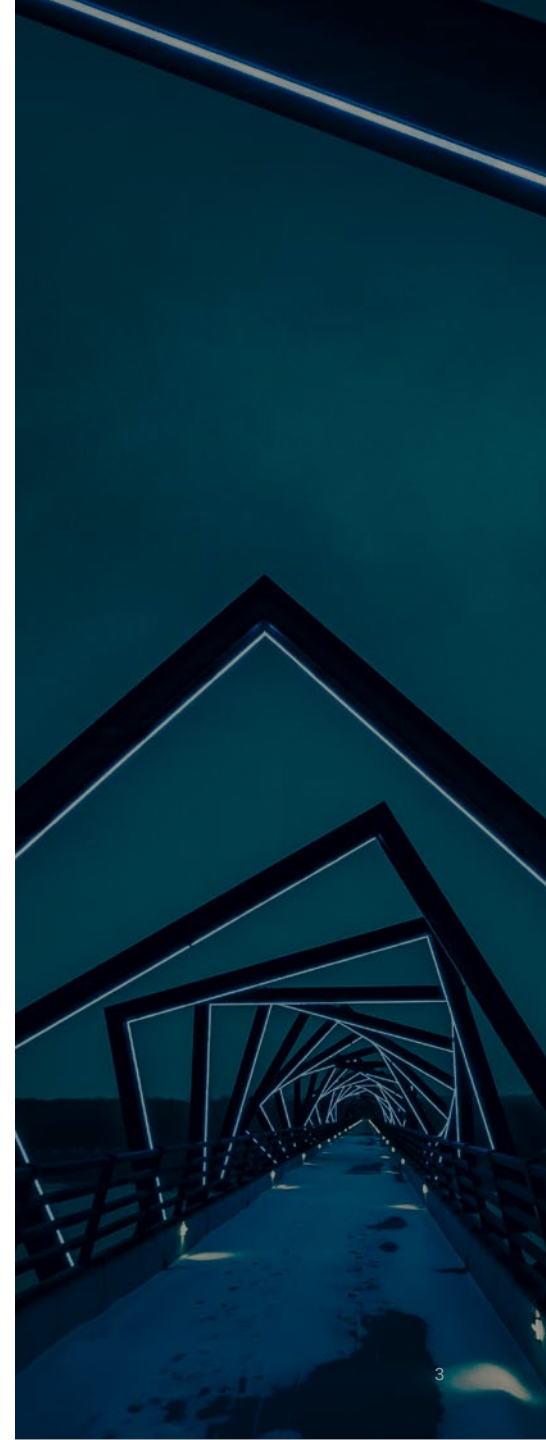
Singapore Government
Integrity · Service · Excellence

Walmart

## What is common to all these organisations?



# …view themselves as technology first organisations.



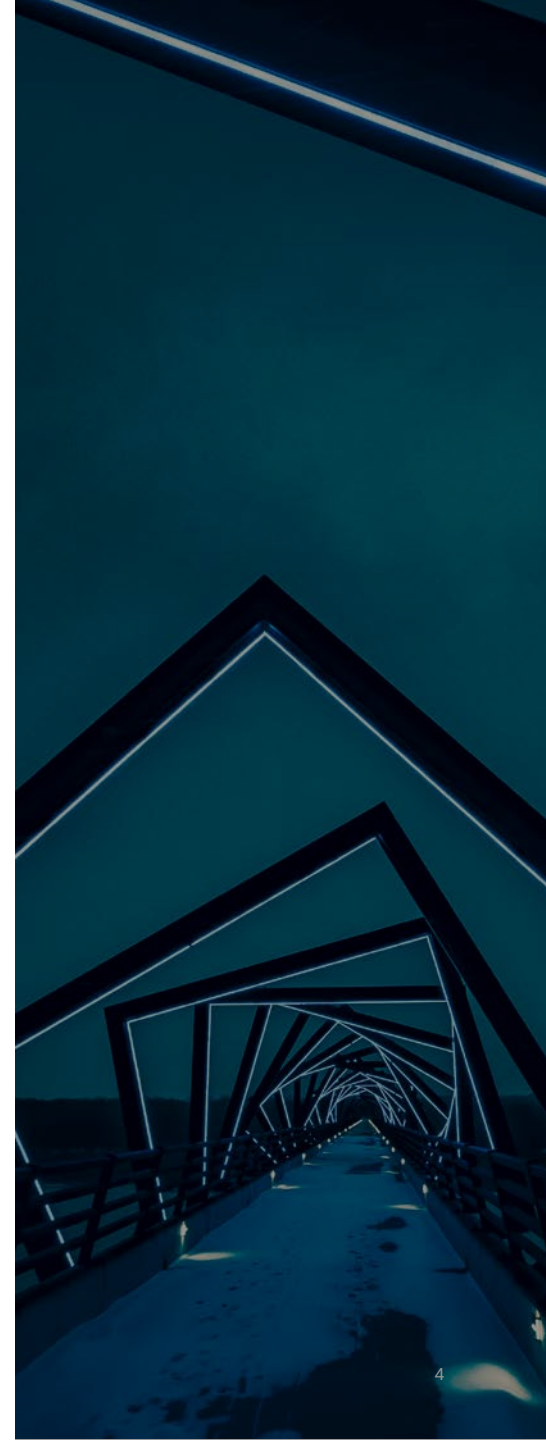
This was a brilliant, novel perspective…

# WHO WILL WIN THE NEXT DECADE (2020s)?

*HINT:*

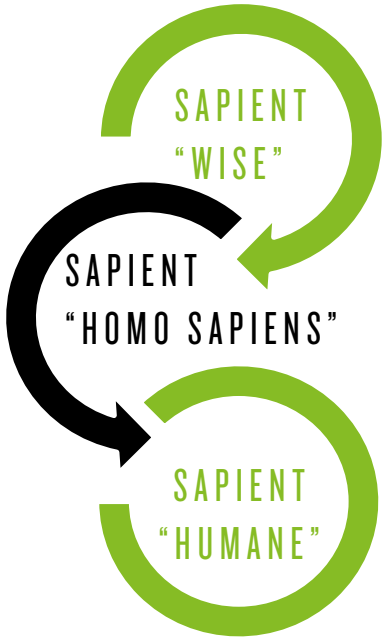
**Sapience** (or wisdom) is the ability to **THINK** and **ACT** using **knowledge**, **experience**, **understanding**, **common sense** and **insight**.

- Being sapient is associated with attributes such as **compassion**, **experiential self-knowledge**, and **non-attachment.**
- Being sapient is associated with virtues such as **ethics** and **benevolence**.



# WHO WILL WIN THE NEXT DECADE (2020s)?

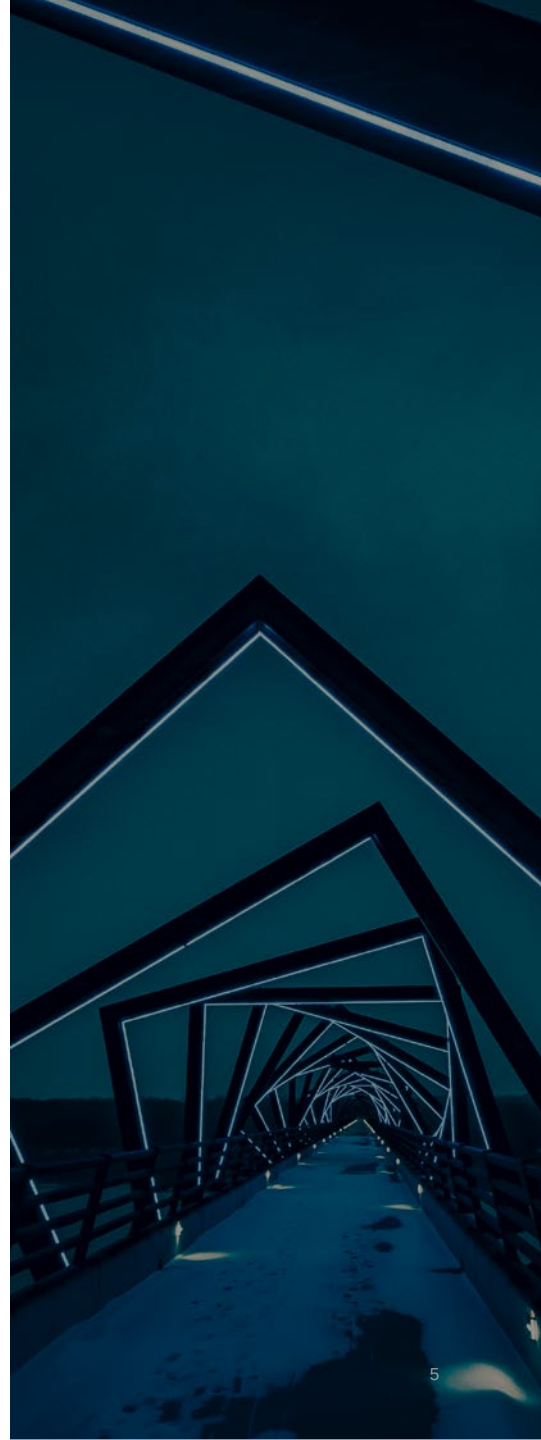
# Sapient Organisations




**Possess WISDOM,** a term that extends the concept of 'smart' and knowledgeable, which dominated the past decade. Such organisations evolve to the next stage of the intelligence curve, to become **intelligent - wise** about the constituents they serve

**Focused on HOMO SAPIENS** focused on the humans that they do business with, both externally as customers, and internally as employees. Such organisations will not only be able to tap into the conscious mind of their constituents, but also predict their unconscious behaviours, tapping into our **primate and reptilian** brains, providing solutions in advance of a conscious need and want

**HUMANE** As organisations are able to influence and predict humans with greater precision, a host of new questions regarding **privacy, security, and influence** will arise. The Sapient organisation will be a leader in responding to these concerns, demonstrating how to produce meaningful value for the company, its people, and society at large – an **ethical** organisation that is valued on this intangible merit, similarly to the intangible value of its **brand**! Best organizations will need to **prove they are ethical first** – before the society allows them to be Sapient with the data,



# WHY "SAPIENT" NOW?

Intersection of 6 trends and capabilities that allow **evolution** form a "Technology" organisation to a "Sapient" organisation:

## INTERSECTING CAPABILITIES

**Massive Growth in Data**

Exponential increase in quantity of Data – further accelerated by IT.OT, IoT and connected systems, that provide a New Natural Resource with endless potential for insights and preferences.

**Sophisticated Algorithms**

Machine learning and optimized algorithms have enabled deep learning to glean insights from constantly changing data.

**Artificial Intelligence**

Artificial intelligence is prevalent in all industries, allowing organisations to proactively respond to dynamic needs of their consumers.

**Exponential growth of Computing Power**

The computing power has drastically increased in the last 40 years, opening avenues to perform computation and simulation across industries.

**Scalability of Cloud Computing**

Cloud computing solutions and cloud infrastructure services are driving new innovations and reducing operational costs.

**Agile Development**

Software development practices are focused on customer's needs and driven by consumer viability, prioritizing speed to market.

# CAPABILITY#1: DATA UNIVERSE

Data is being produced at an exponential rate. As organisations have grown their analytics and information management capabilities, information has become increasingly important as a business input, nearly on par with capital and labour. With enormous potential in the data oceans held by organisations today, there is considerable opportunity to those who are best positioned to unlock it.

Google is one of the best examples of the scope and extent of data proliferation today. The sheer size of its usage statistics illustrate this well, with over 1 billion Gmail users, 1.3 billion Youtube users and over 65% of the global web search market. Through these services, Google collects data on web searches, videos played, advertisements clicked, location history, personal contacts, calendar dates, photos, documents and more.

With varying degrees of collaboration from internet and telecommunication companies, the National Security Agency (NSA) collects scores of internet-based data including audio, video, photos, documents, emails, search histories and more. It also collects telephone records and tracks cellphone activity. The Agency uses this data to better identify and track potential national security threats..

## Sapient Organisation Perspective

Seemingly infinite, unlimited quantities of data ("natural resource") can be mined for knowledge, wisdom and consciousness about Homo Sapiens. This resource, unlike other natural resources, is not only renewable, its exponentially growing and will only increase in value and ability to extract insights from it.

# CAPABILITY#2: SOPHISTICATED ALGORITHMS

Advancements in machine learning have increased the effectiveness of algorithms and endowed them with the ability to improve, and improve with speed. With machine learning, algorithms are developed with processes that enable "learning", allowing the algorithm to assess the outputs it produces and adjust its own code as appropriate to improve the quality or accuracy of its outputs.

NETFLIX

Netflix uses a complex algorithm that takes into account not just the user's personal information and viewing history, but a nuanced and sophisticated understanding of the movies and T.V. shows offered on the platform. The algorithm identifies patterns across its user bases and creates "taste communities" of users with similar viewing profiles and recommends.

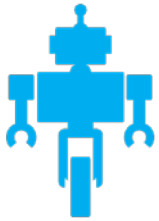
Facebook scans and collects everything posted in the past week amongst shared friends, pages followed, groups belonged to, and every Facebook page liked. For the average Facebook user, that's more than 1,500 posts. Then, according to a closely guarded and constantly shifting formula, Facebook's news feed algorithm ranks them all, in what it believes to be the precise order of how likely you are to find each post worthwhile. Most users will only ever see the top few hundred.

## Sapient Organisation Perspective

Ever-increasing sophistication of Algorithms, when applied to massive Data sets, will extract trends, relationships, knowledge and wisdom otherwise not possible. It is through these algorisms that the Sapient Organisation will uncover intricate behaviours, unconscious fears, desires, hopes and dreams that exist below our primate brain and are deeply embedded in our reptilian brain.

# CAPABILITY#3: ARTIFICIAL INTELLIGENCE

Artificial and cognitive intelligence includes a range of technologies that can mimic or augment human actions, judgement, and intelligence. At the entry level, are technologies such as Robotic Process Automation (RPA) which mimic human action by automating procedures that are rules-based and do not require interpretation. The next level of artificial intelligence includes cognitive technologies that apply machine learning to make predictive suggestions and are capable of adapting to better meet human needs.



Robotics Process Automation (RPA) technologies are growing in maturity, and being implemented by organisations across sectors and industries. RPA technologies can streamline manual and repetitive tasks, typically back office and administrative functions, which free up capacity and enable more time for greater value-added human inputs.

Alexa

Virtual assistants such as Amazon's Alexa are establishing themselves as a central component of the modern household. Alexa is a conversational AI, which means it was designed to communicate with people in ways that feel natural, solve problems, and improves over time. It can pick up subtle differences in tone and word selection as well, identifying the context of commands.

## Sapient Organisation Perspective

Artificial Intelligence capabilities, enabled by highly advanced algorithms, and supported by Data Oceans, will allow Sapient Organisations to mimic the behavior of conscious humans.

# CAPABILITY#4: EXPONENTIAL COMPUTING POWER

Processing power gives organisations the capability to design solutions to increasingly complex problems. As processing power improves, computing also becomes more affordable and accessible. Organisations across all industries have been able to deploy computers to improve their businesses in a way that was once only possible for the elite, a decade earlier. New ideas and products are no longer constrained by cost and processing power.

Phones are the gateway to consumer data and their preferences. Today, smartphones hold more computing power than all of NASA in 1969, when it put the first men on the moon. 30 million smartphones can match the processing power of the world's 30 supercomputers. Transformational advances in scale, size and computing ability have connected the world and sped the digital revolution.

The meteoric rise and fluctuations in the price of cryptocurrencies such as Bitcoin have captured significant attention over the past year. A central aspect of many cryptocurrencies is that new tokens are mined by computers solving mathematical puzzles. Accessibility, affordability, and capabilities of modern computers realized over the past decades have spurred the cryptocurrency adoption.

## Sapient Organisation Perspective

Exponential growth in computing power will enable the Sapient Organisation to process the increasingly sophisticated algorithms on Data Universes with speed that will enable Artificial Intelligence systems to propose decisions in close-to-real-time to make the difference.

# CAPABILITY#5: SCALABLE CLOUD COMPUTING

Cloud services have transformed enterprise IT solutions from being cumbersome and providing value in the long-term to becoming more nimble, flexible and affordable options. Forrester's public cloud market forecast predicts a global market of $236 billion by 2020. This trend will enables firms to increase their speed to market and removes constraints associated with not having access to computing or storage.

IBM

In 2003, IBM, along with two research partners, sponsored a Smallpox Research Grid Project. For this project, IBM used a massive distributed computing grid to analyze compounds' effectiveness against smallpox. Using unutilized computing power through a cloud network named the World Community Grid and has supported 29 research projects to date.

airbnb

A year after Airbnb launched, the company decided to migrate nearly all of its cloud computing functions to Amazon Web Services. By saving cash on investments in IT infrastructure, AirBnB was able to re-deploy capital into investments that helped it rapidly scale. By leveraging the cloud, the company was able to maximize flexibility and responsiveness to prepare for more growth.

## Sapient Organisation Perspective

Cloud computing enables rapid elasticity of IT infrastructures, development and testing environments, and ability to deploy capabilities, extend, grow, shift, reduce and reuse computing power, on almost ad-hoc, as needed basis. This capability, combined with Agile methods, gives the Sapient Organisation the "freedom of movement" it needs to move fast, and own the future.

# CAPABILITY#6: AGILE DEVELOPMENT

Over the past quarter century, the pace of software development has grown exponentially. A key factor in this achievement has been the ubiquitous adoption of agile methodologies. Agile product development practices involve the user regularly to incorporate early feedback into their constantly evolving end product. Agile practices also create a culture that values productivity, quality, speed to market and embraces user experience as the fundamental factor to drive product innovation and success. Effective agile organisations continuously adapt their processes and even change to new methodologies or incorporate new practices to improve or augment their development capabilities.

Spotify

Spotify's product development process is entrenched in Agile methodologies such as Scrum. Cross-functional teams called Squads have the freedom to explore ideas, decide what they want to build and how to build the product. It was an autonomous Squad that developed Spotify's recommendation algorithm, Discover Weekly, and deployed it within just a few months.

FastWorks is the product development framework used by GE, built upon Agile principles. The framework leverages Agile principles of speed and autonomy and applies them in conjunction with GE's size and resources. FastWorks has reduced product development timelines, adopted consumer responses and empowered employees to explore ideas that show promise in the real world.

## Sapient Organisation Perspective

Agile methods, combined with expeditious decision making, will allow Sapiens Organisation to act, not just react, to the predicted developments in their industries. It is through this methodology of rapid design and prototyping that our Sapient Organisations will ensure that their solutions (both goods and services) will be 'first to market', always.

# BECOMING A SAPIENT ORGANISATION

By focusing on 3 key initiatives, organisations can start their evolution towards becoming a Sapient Organisation

| Start the Cognitive Journey | Become Flexible | Celebrate People-First Culture |
|---|---|---|
| Invest in RPA | Adopt Agile Culture | Set the Humanist Tone |
| Bet on Analytics | Deploy Using Cloud | Embody Human-Centered Design |
| Ignite Innovation | Unleash Nimble Teams | Empower the Workforce |

# Start the COGNITIVE JOURNEY

The spectrum of cognitive technologies is vast and growing. By investing today in nascent, proven technologies, companies can unlock the powers artificial intelligence and prepare themselves to ride the coming wave in the next decade

**Invest in RPA.** To maximize the impact of robot-led automation, business leaders need to have a solid understanding of the available tools and a clearly defined strategy for automating their enterprises

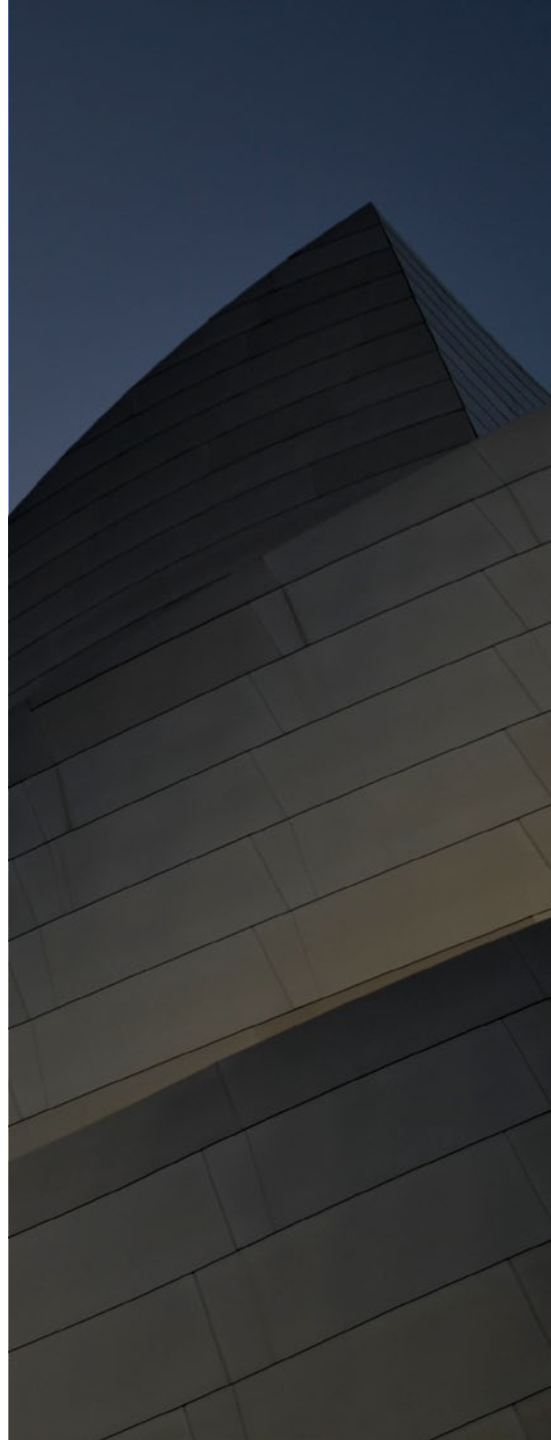
- Assess process opportunities across the business for automation and build the business case for investment
- Determine the optimal automation operating and governance model and plan out the automation roadmap

**Bet on analytics**. By entrenching data, analysis and reasoning into the organisation's decision-making processes, effective organisations turn analytics into a core capability while promoting a culture of data-driven decision-making.

- **Clean and organize your data!  This is the hard, but foundational, work!**
- Develop a strategy and overarching vision for analytics and how it will support the business
- Data is THE most strategic asset and should be viewed and treated as such: ownership, protection, care, diligence.  Data is owned by the Organisation, not departments or individuals!

**Ignite innovation.** By empowering the workforce with and understanding and capabilities in cognitive technologies, new ideas and solutions will be developed through their application

- Develop teams who's purpose will be to apply cognitive technologies to new problems across the business
- Create a priority framework upon which to assess and invest in your **innovation portfolio**



# Become FLEXIBLE

Organisations today must navigate unprecedented technological change and disruptive market forces. In the next decade, the most successful organisations will be those most responsive to change; capable of rapidly deploying their resources to emergent market needs

**Adopt agile culture**. Agile aims to meet business objectives and deliver value to customers early and often. When adopted, agile enables organizations to better respond to change and manage uncertainty

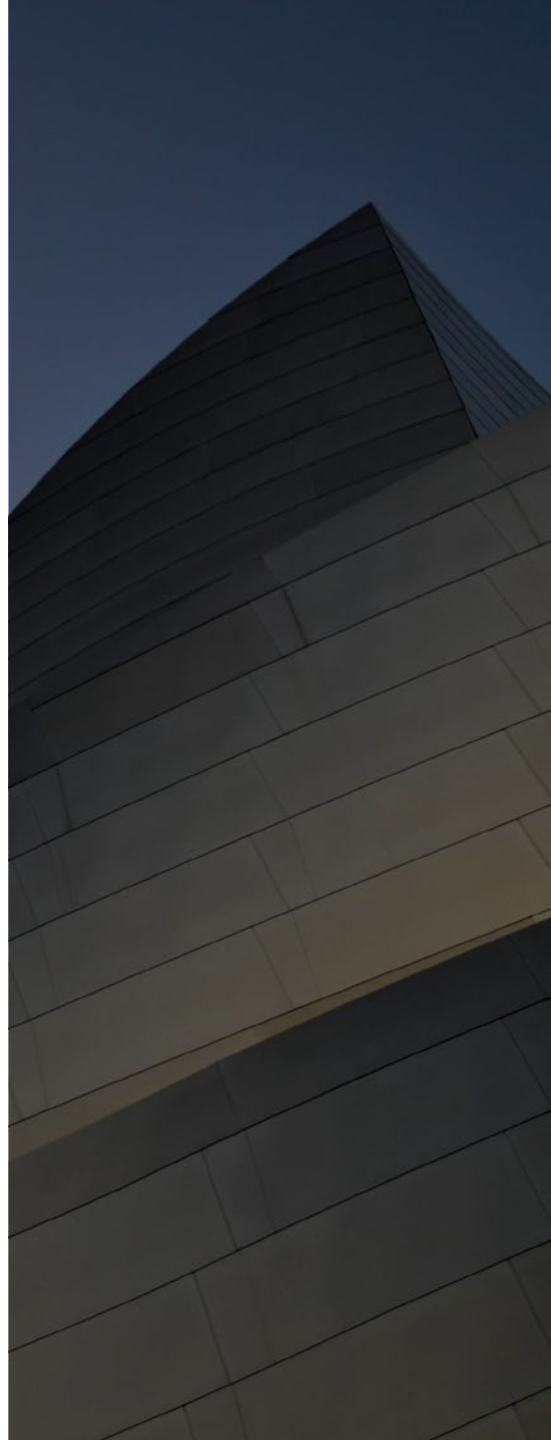
- Align on an agile vision and purpose that will articulate the objectives of and scope of agile across the business, and tie its promotion closely to a communication strategy
- Develop a business and technology roadmap that closely synchronizes the organisations business and technology operations

**Deploy using cloud.** Cloud technologies are accelerating the pace of change and facilitating entirely new capabilities that match business need with IT infrastructure with speed

- Develop a cloud strategy that addresses business imperatives, opportunities and business requirements
- Create a roadmap for continuous transformation that will enable the organisation to grow and adapt to new challenges

**Unleash nimble teams.** Nimble teams are small business units, with resources and real decision authority that are 'faster to market' than heavily structured groups that require approvals before each step

- Realign select existing structures into self-managed, networked teams focused on a specific outcome
- Create an ecosystem of open talent with a fail-fast perspective and harness social technology as a mechanism to keep the organization connected



# Celebrate PEOPLE-FIRST CULTURE

An inclusive mindset is the key to unlocking the full potential of a business, from workers and customers alike. Organisations that best understand and serve their customers naturally attract more business and are more successful. By creating a people-first culture, organisations will ensure they have the right incentives and aspirations from which to deploy new capabilities for the benefit of their humans.

**Set the Humanist Tone.** People-first organisations have leaders that set a tone of inclusivity and inspire the best from their people.

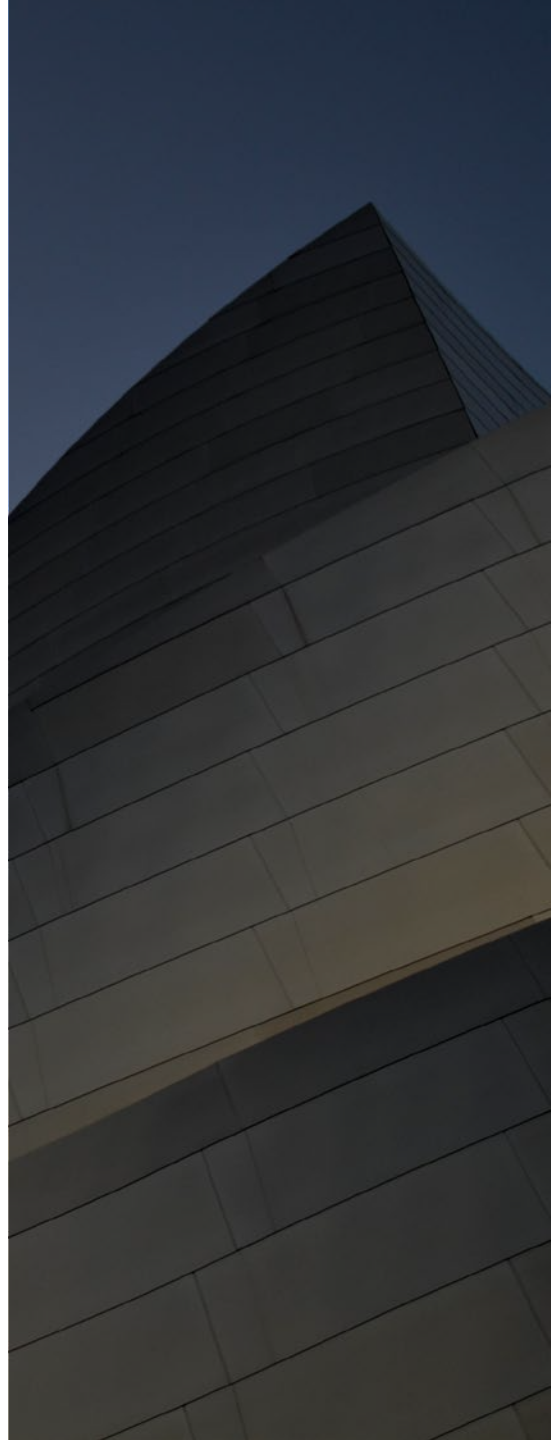
- Create an organisational vision of what people-first looks like, and promote that across the organisation – promote **ethics**, **benevolence** and **compassion** as core values and live them!
- Make leaders and staff accountable to that vision through performance management systems
- Adopt **Humanity Value** as an intangible asset and quantify it on the Balance Sheet, like your Brand

**Embody human-centered design.** By building capabilities entrenched in an understanding of how we make decisions, companies can effectively build the products and workplaces that will keep their people engaged.

- Create innovation-oriented business units, that promote human-centered approaches and skill sets across the organisation
- Recruit talent and make acquisitions deep in experience with these skills sets

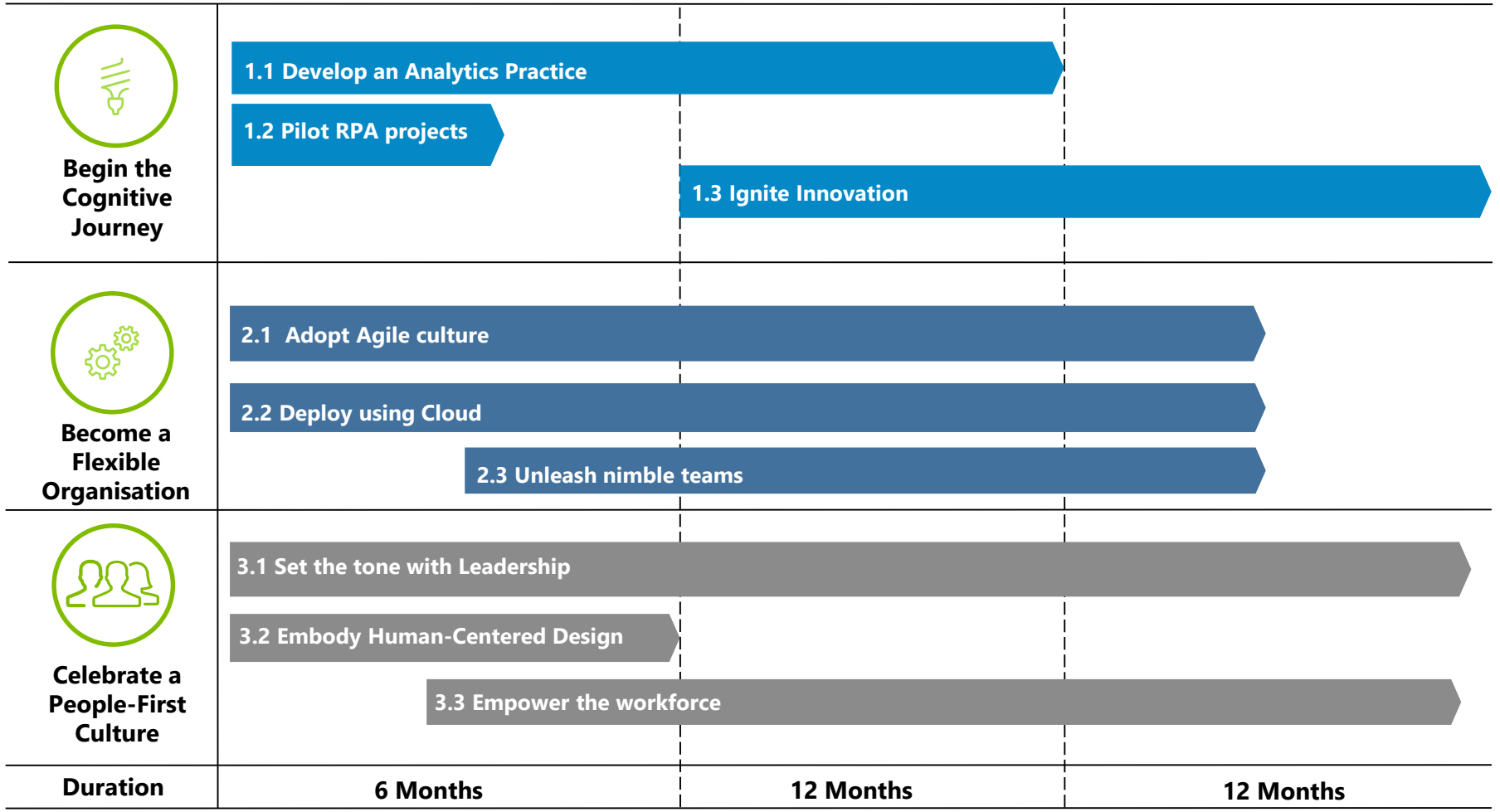
**Empower the workforce.** Inclusive organisations empower their people to understand and take advantage of their strengths, and encourage and their contributions to the direction of the company.

- Provide the workforce with the latest cognitive technologies and approaches to solve new problems
- Let employees have a say in the shaping of their workplace, and valuing flexibility and diversity in working styles



# ROADMAP TO A SAPIENT ORGANISATION

Focusing on the 3 key capabilities, organisation can start their "Sapient" journey by taking the stated affirmative actions.



# FOR MORE INFORMATION, REACH OUT TO US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