DIGITAL BCG

Accelerating digital to build the 'bionic company'

BCG's Digital Acceleration Index (DAI) to measure digital maturity

SEPTEMBER 23, 2020

Agenda

- The Bionic (Digital) Company
- Measuring digital maturity
- What bionic companies do differently
- Case: Digitizing Government

COVID-19 is forcing companies to face a new reality

High uncertainty complicating decision making, effective responses and planning

Disruption to operations & supply chain resulting in lost revenue and increased costs

Suboptimal workforce allocation for fast changing supply/demand and new ways of working

Drastic change in consumer demand requiring ways to re-build it and find growth

» Companies are looking to deploy solutions quickly, and plan for a successful recovery

Source: BCG

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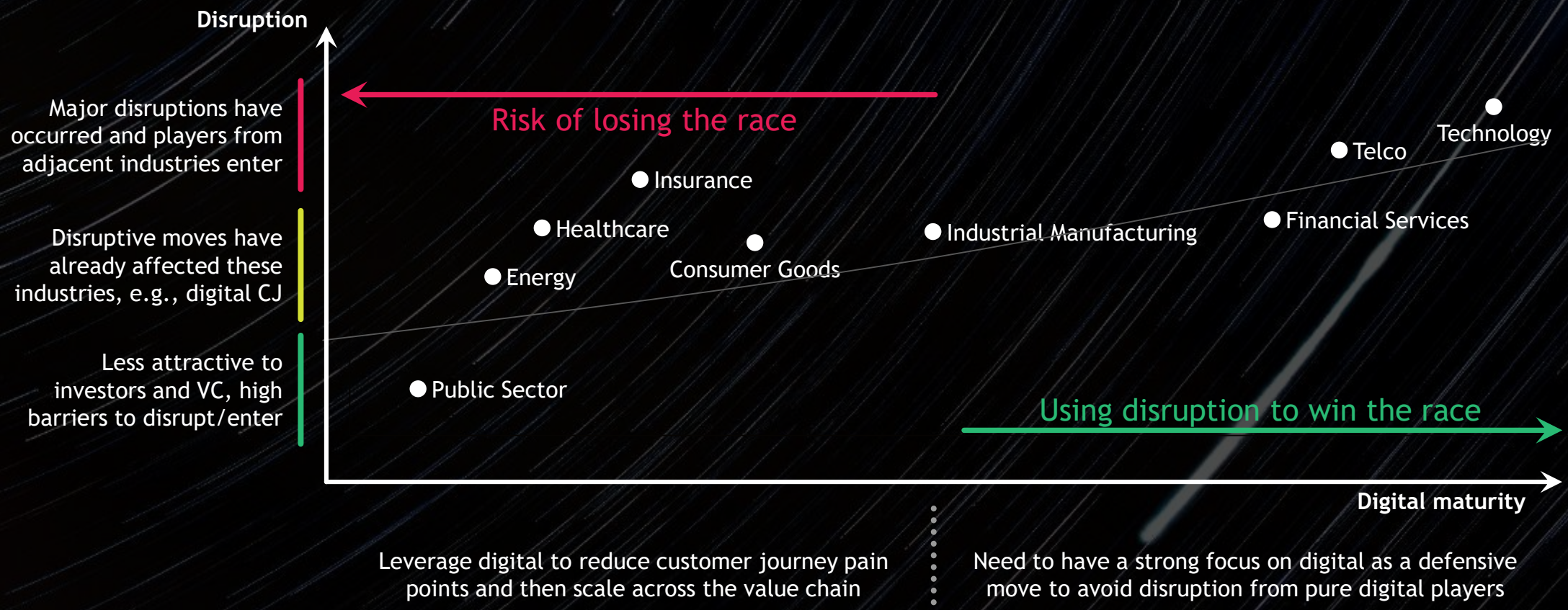
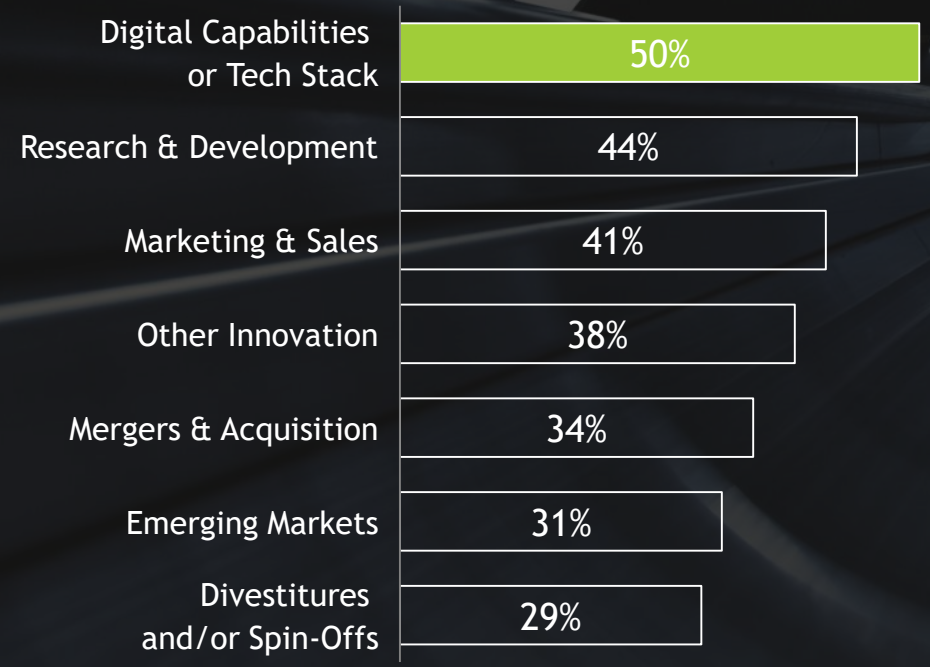
Basically all industries need to cope with digital disruption



1. Based on six variables assessing the perceived industry digital disruption
Source: BCG DAI assessment

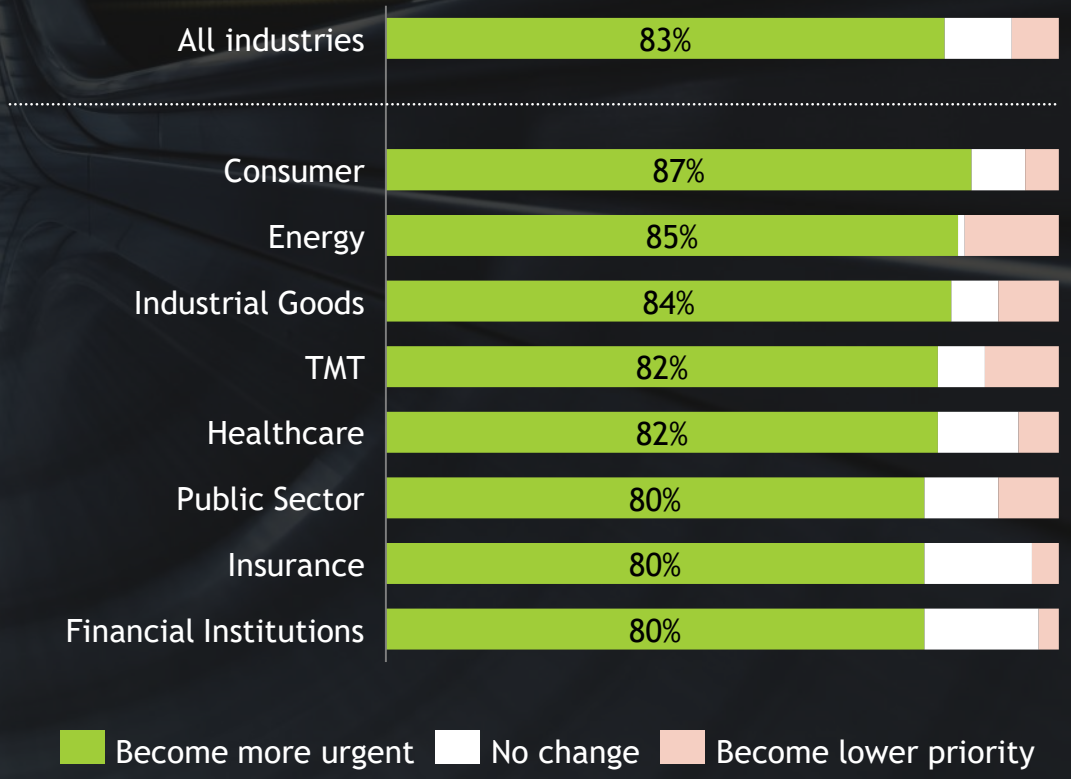
Pre-crisis, digital capability investments have been top priority

Investor views on priority areas companies should aggressively invest in[1]



Now, ~80% of companies plan to accelerate digital transformations

Percentage of respondent[2], by views on priority of digital transformation post crisis



1. Respondents were asked what percentage of companies should be more aggressive in pursuing the following strategies for value creation
2. Respondents asked if COVID-19 pandemic affected the urgency of their organization's overall digital strategy

Source: DSR Digital Transformation 2020 Survey still ongoing with n=775; BCG 11th annual investor survey 2019 with n=251

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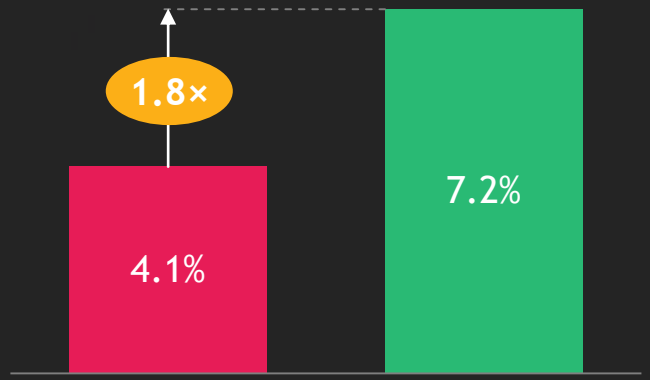
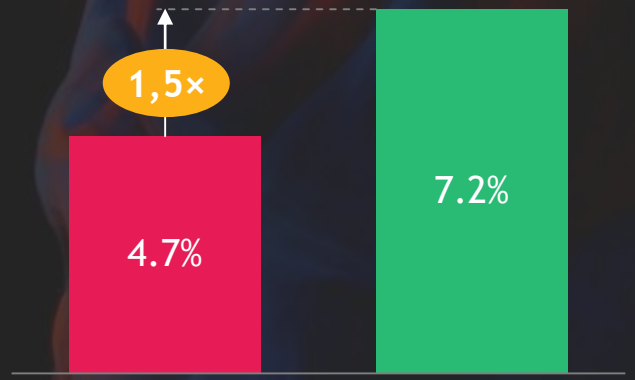
Leaders outperform laggards in earnings, innovation and value

1.8× higher earnings growth p.a.



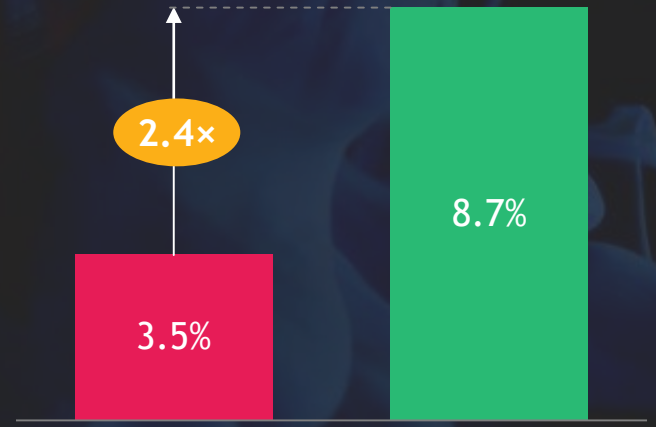
EBITDA

~1.5× higher spend on innovation p.a.



R&D expenditure

Enterprise value more than doubling p.a.

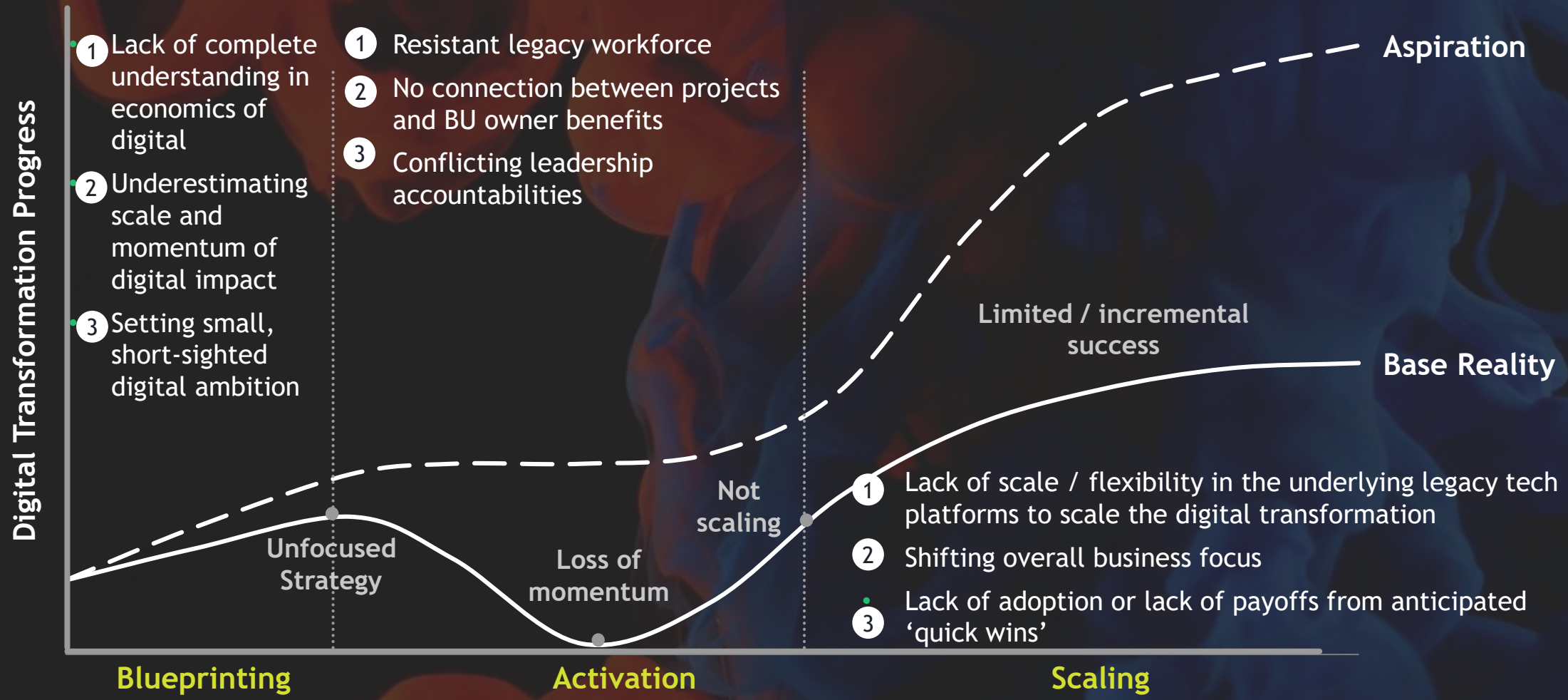


Total enterprise value

Bionic leaders Bionic laggards

1. Digital Performer and Digital Leader aggregated to one category
Source: Capital IQ (n=224), DAI Global Database

Still, several challenges why digital transformations fail to deliver



Source: BCG

Agenda

The Bionic (Digital) Company

Measuring digital maturity

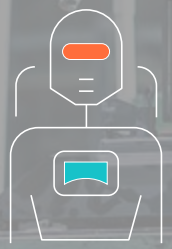
What bionic companies do differently

Case: Digitizing Government

Now, the overall nature of work is transforming significantly

From human operated …

… to human designed



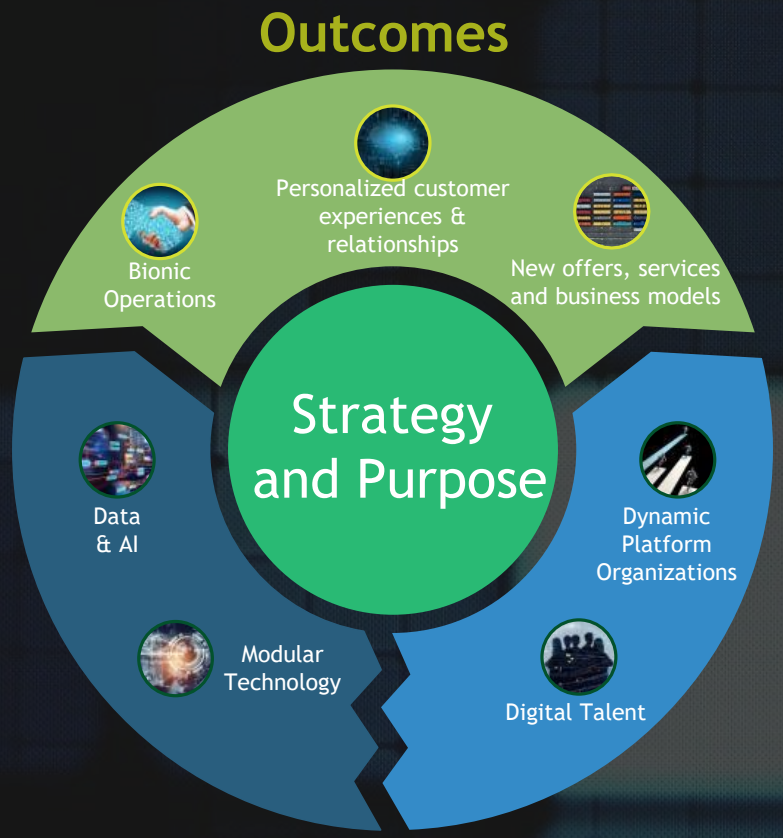
Human operated

Technology/AI augmented

Technology/AI transformed

Source: BCG

The company of the future is bionic



Technology: Data and Digital Platform

Human: Org, Talent, Ways of working

Building the Bionic Company *means "designing technology and the human org around each other to realize transformation outcomes operations, customer experiences & relationships, and new offers and businesses"*

Source: BCG

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Bionic DAI with 40 dimensions to measure digital maturity

Level 3 – 40 dimensions

Outcomes

Personalized Customer Experiences & Relationships

- E2E customer journeys
- Digitally driven pricing
- Next-generation sales
- Personalization
- Digital marketing
- Customer services
- Research & product development

Bionic Operations

- Manufacturing (I4.0/ICO)
- Shared services & Centers of excellence
- Procurement
- Corporate center
- Digital supply chain
- Service operations

New Offers, Services and Business Models

- Innovation and disruption
- New business build
- Start-up incubation, VC, M&A
- Lighthouses & prototyping
- Digital ecosystem go-to-market
- Digital ecosystem operating model

Strategy and purpose

- Purpose
- Strategic vision and ambition
- Priorities & alignment
- Roadmap

Technology

Data & AI

- Data governance
- Data strategy
- Digital & data platforms
- Artificial intelligence
- Cybersecurity

Modular Technology

- World Class Tech function
- Internet of things
- Modularity
- Digital delivery (DevOps)

Human

Digital Talent

- Talent ecosystem
- Exponential learning
- New leadership models

Dynamic Platform Organization

- Governance
- Platform organization
- Digital transformation accelerator
- Virtual teaming
- Agile@Scale

Bionic maturity

Source: BCG Digital Acceleration Index (DAI)

Each dimension is scored along 4 maturities to calculate overall DAI

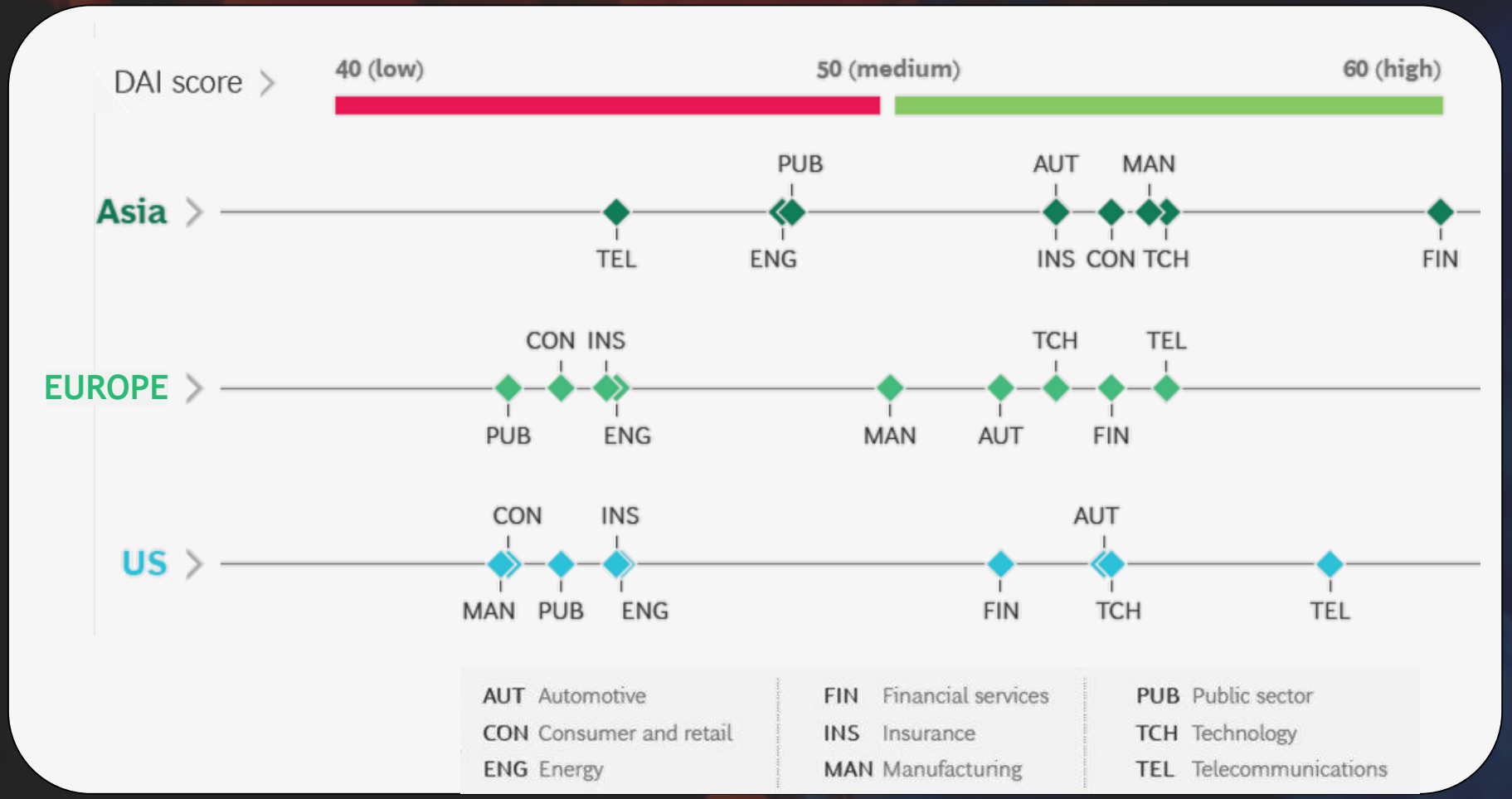
DAI score

Bionic maturity (1-100)

Starter	Literate	Performer	Leader
0-7 / 8-15 / 16-24	25-32 / 33-40 / 41-49	50-57 / 58-65 / 66-74	75-82 / 83-90 / 91-100
Unclear Digital vision	Clear vision/strategy & roadmap defined	Strong digital mindset and agile culture	Initiatives are contributing to strategy with a clear value added
Business and IT sometimes work on digital topics based on ad hoc demands, align only if projects jointly executed	Processes are being digitized and Businesses, Functions execute digital initiatives, but in functional silos	Business and IT have jointly built key Digital capabilities across all areas	Digital has been embedded throughout the company: innovation, value proposition, tech, & ops.
Organization not yet digitally enabling	Digitally enabling governance in place	Digital initiatives are built & commercialized with success. Some disruptive businesses have already been launched	Outperforms peers in key digital metrics, and digital is seen as the key driver of the company value

Source: BCG Digital Acceleration Index (DAI)

Global study 2019 | FI and Telco companies with highest DAI scores



Gap between top and low sectors smaller in Asia vs. EU or US

Europe with no sector which is globally leading

High spread in US btw top sectors & those falling behind

Note: Scores are the average DAI score from 0 (lowest) to 100 (highest) per industry in a region.
Source: BCG global DAI study 2019

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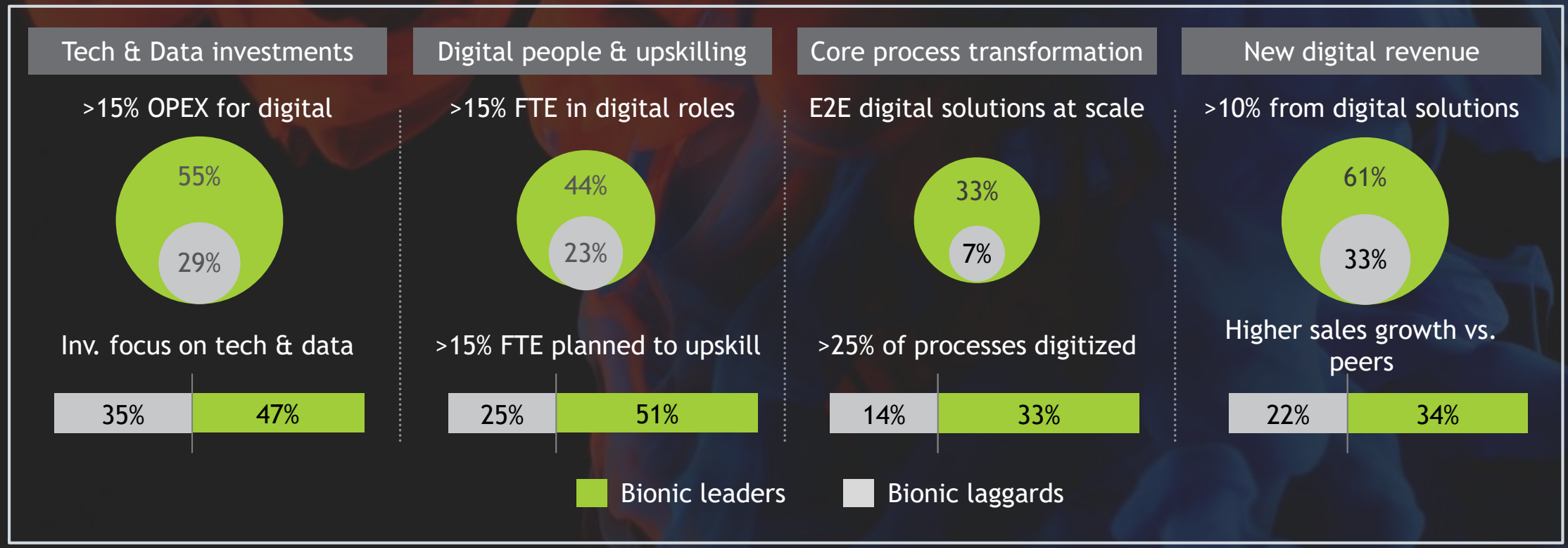
Case: Digitizing Government

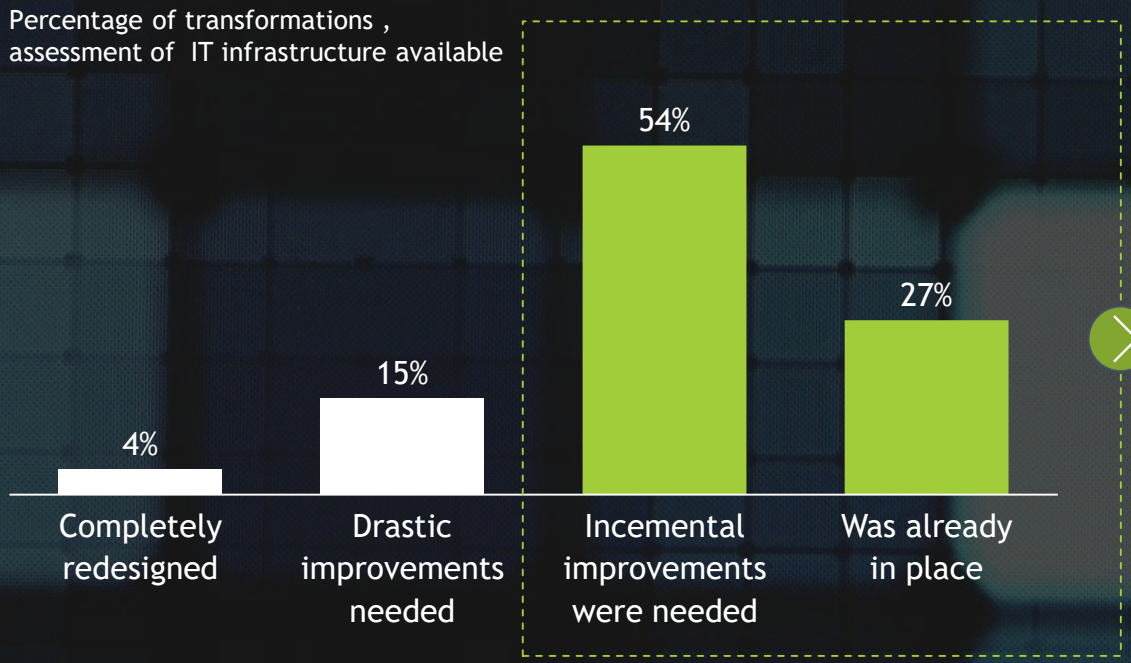
Bionic companies apply four boosters in their digital transformation



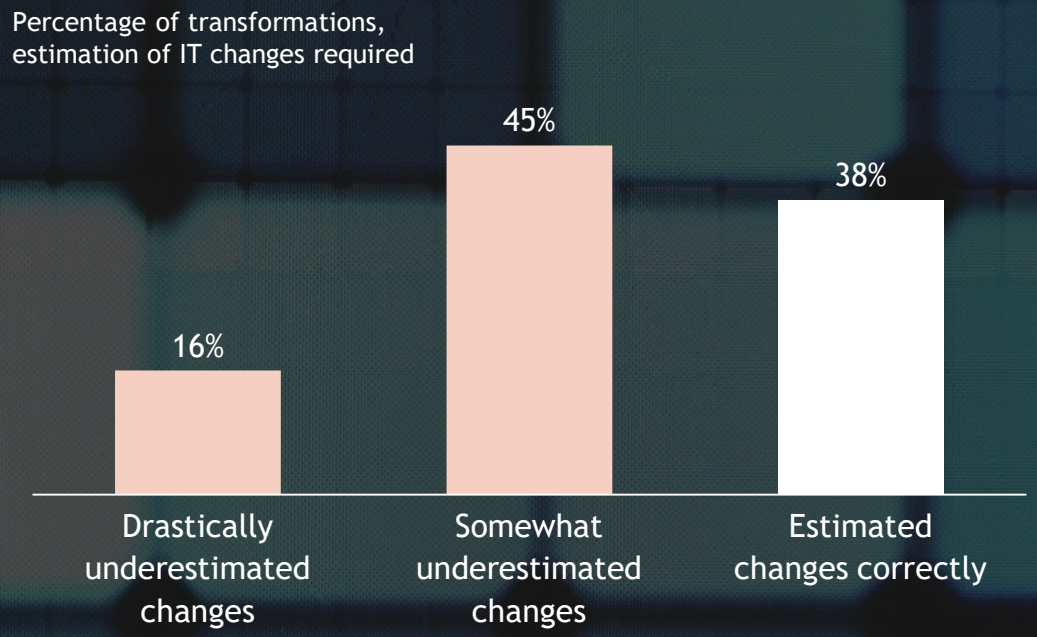
Source: Global DAI study 2019/2020

>60% companies incorrectly assessed changes needed to technology

~80% of companies felt they had necessary IT architecture to support digital transformation[1]



In hindsight, >60% among them said they underestimated the changes required[2]



1. Respondents asked to rate the level of sophistication of IT architecture / data and digital platform to support digital transformation initiatives
2. Respondents asked to identify in hindsight the ability to plan the type of changes to IT infrastructure and data platform required to allow for flexibility

Source: DSR Global Digital Transformation 2020 Survey; n=825

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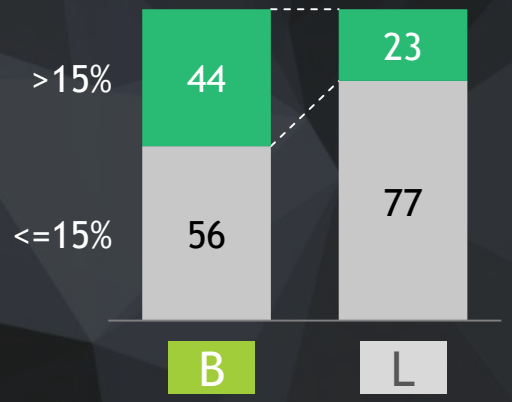
Bionic companies prioritize human enablers

Dedication of people

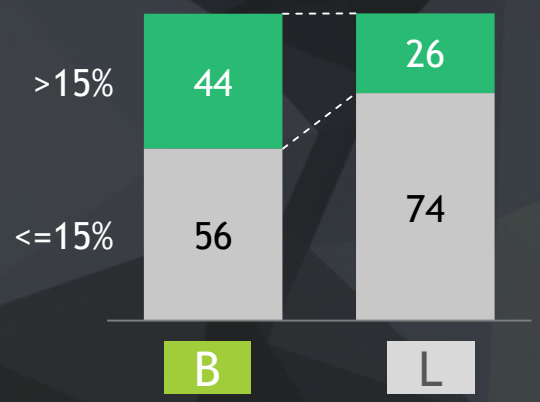
Dedication

Q: Share of FTE dedicated to digital / working in digital roles



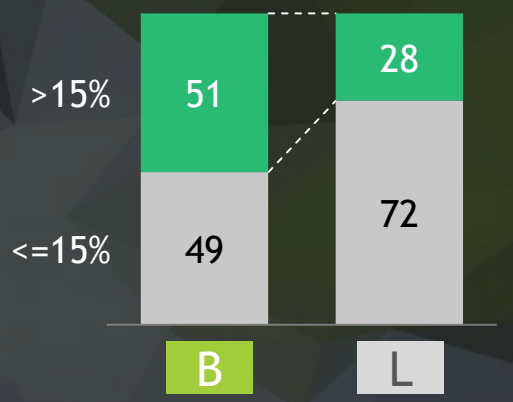
Hiring

Q: Digital FTE growth target in coming 3 years



Upskilling

Q: Share of FTE for upskilling in digital along the coming year



Bionic companies Bionic laggards

Source: Global DAI study 2019/2020

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Companies that transform successfully, follow 6 key success factors

Define strategy and Purpose	Integrated strategy with clear transformation goals	1
Drive to Outcomes	Leadership commitment from CEO to middle management	2
	Effective monitoring of progress towards outcomes	3
Invest in Human	High-caliber talent dedicated to transformation program	4
	Agile leadership & persistence, driving broader adoption	5
Invest in Technology	Flexible, modular technology & data platform	6

Source: BCG DSR

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Digital transformation of a major Government bureaucracy…

- Improve agency's delivery of digital services
- Improve the way government buy/use technology
- Help build digital skills and establish agile ways of working
- Provide greater transparency on IT projects, costs, risks and opportunities

…but faces major hurdles in its journey to drive sustained change

- 200+ departments and agencies
- $10B annual spend on IT
- 72 digital projects over $10M "reported" as at 2018
- Lacked consistent digital ambition and a coherent digital agenda

Source: BCG project experience

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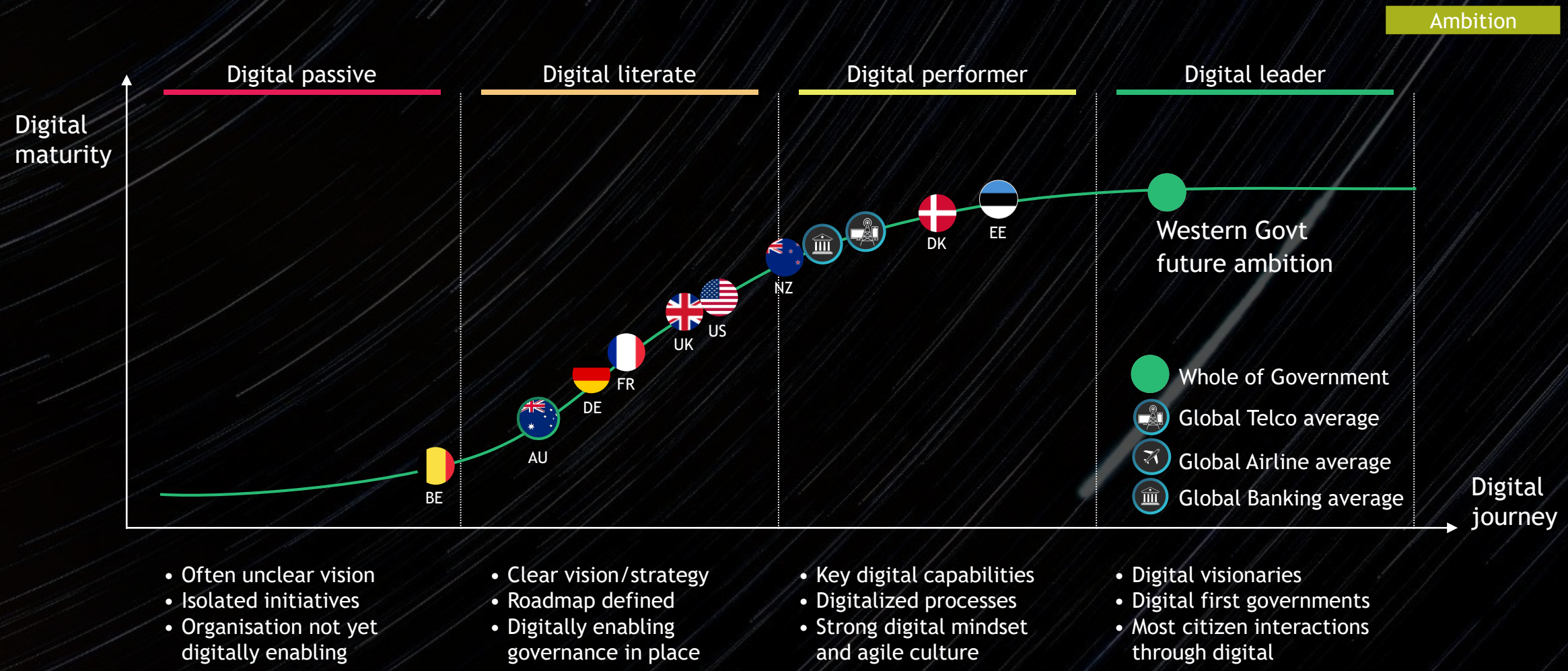
Client Government's aspiration to become digital leader by 2025



- Often unclear vision
- Isolated initiatives
- Organisation not yet digitally enabling

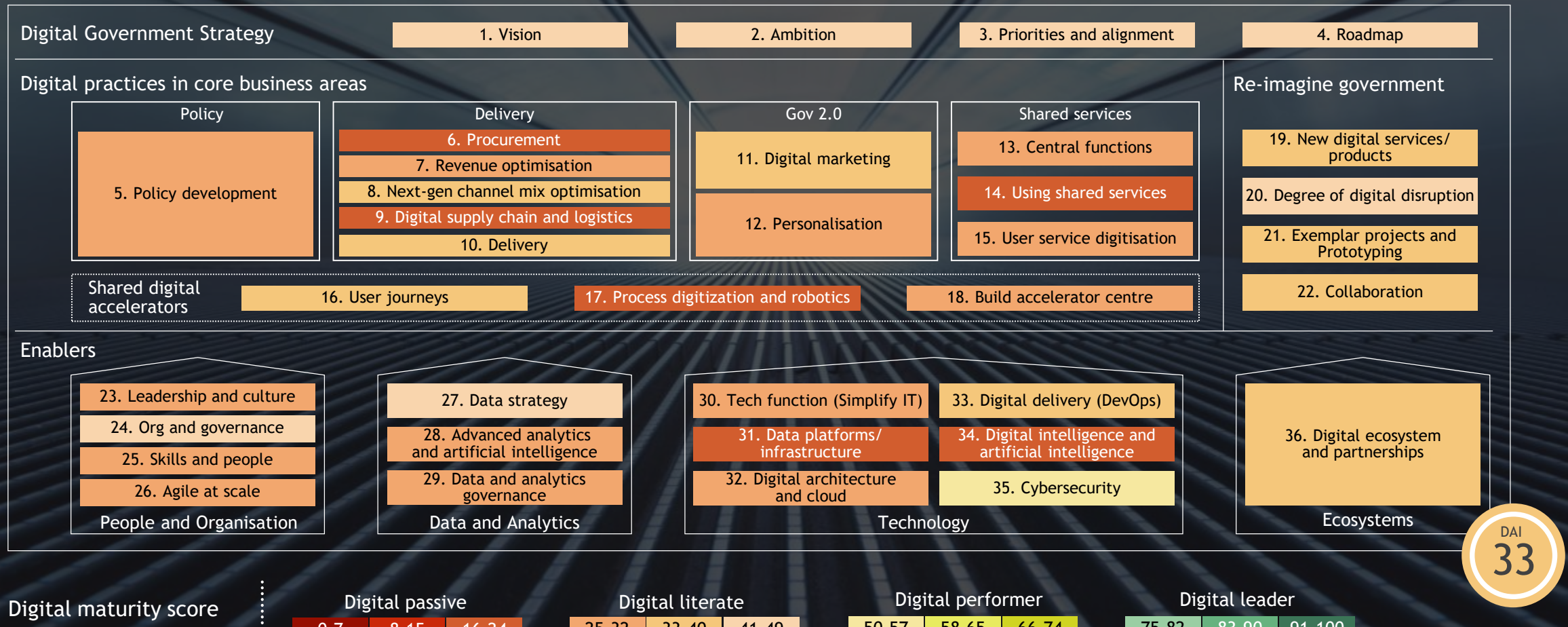
- Clear vision/strategy
- Roadmap defined
- Digitally enabling governance in place

- Key digital capabilities
- Digitalized processes
- Strong digital mindset and agile culture

- Digital visionaries
- Digital first governments
- Most citizen interactions through digital

Source: DAI survey conducted from 15th May 2018 to 1st June 2018 (n=537), BCG experience

Client Government has a digital maturity score of 33

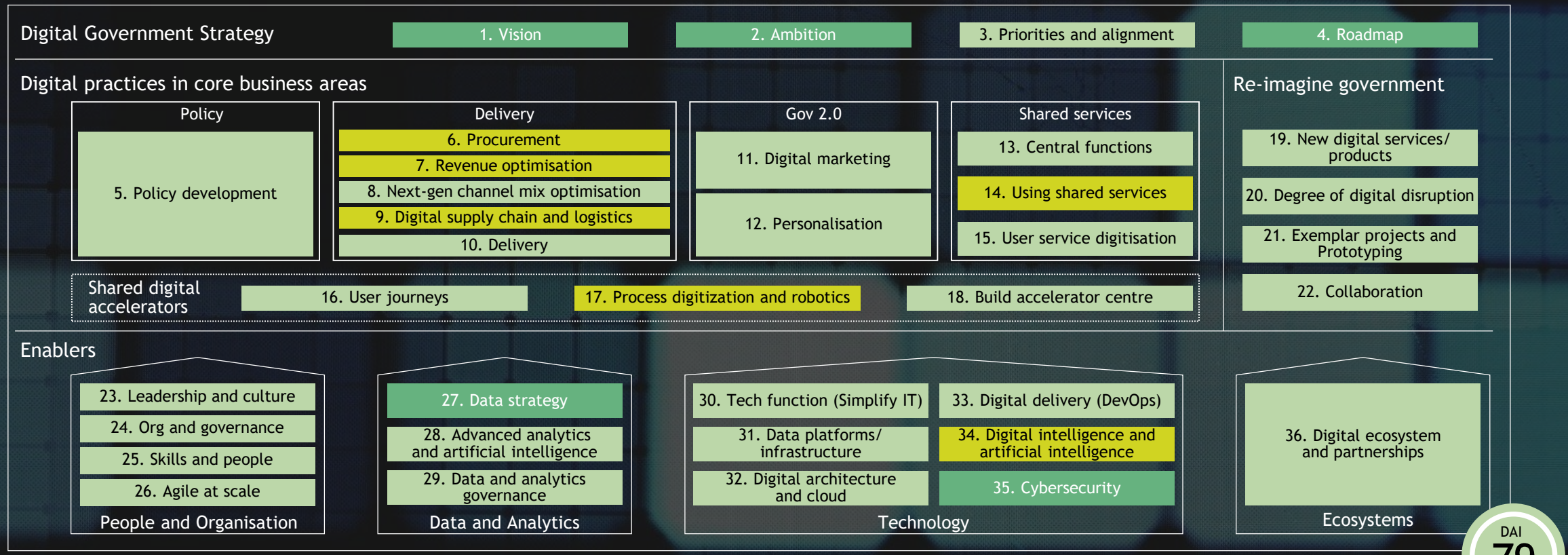


Digital maturity score

Digital passive			Digital literate			Digital performer			Digital leader		
0-7	8-15	16-24	25-32	33-40	41-49	50-57	58-65	66-74	75-82	83-90	91-100

Source: DAI survey conducted from 15th May 2018 to 1st June 2018 (n=537), BCG experience

Client Government ambition to become a digital leader



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Source: DAI survey conducted from 15th May 2018 to 1st June 2018 (n=537), BCG experience

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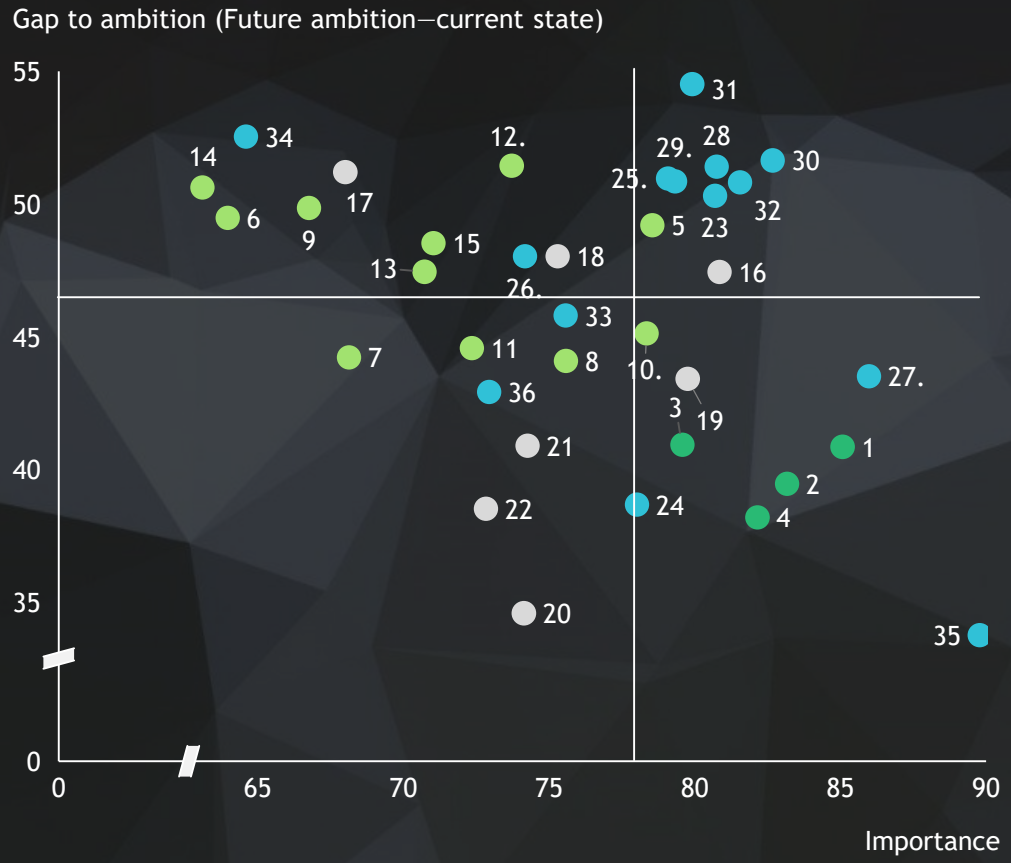
Enablers with highest importance and largest maturity gap

Client Government digital maturity matrix



Source: DAI survey 2018 (n=537)

Digital government strategy

- 1. Vision
- 2. Ambition
- 3. Priorities and alignment
- 4. Roadmap

Digital practices in core business areas

- 5. Policy development
- 6. Procurement
- 7. Revenue optimisation
- 8. Next-gen channel mix optimisation
- 9. Digital supply chain and logistics
- 10. Delivery
- 11. Digital marketing
- 12. Personalisation
- 13. Central functions
- 14. Using shared services

Reimagine government

- 15. User service digitisation
- 16. User journeys
- 17. Process digitisation and robotics
- 18. Build accelerator centre
- 19. New digital services/products
- 20. Degree of digital disruption
- 21. Exemplar projects and prototyping
- 22. Collaboration

Enablers

- 23. Leadership and culture
- 24. Organisation and governance
- 25. Skills and people
- 26. Agile at scale
- 27. Data strategy
- 28. Advanced analytics and AI
- 29. Data and analytics governance
- 30. Tech function (Simplify IT)
- 31. Data platforms/infrastructure
- 32. Digital architecture and cloud
- 33. Digital delivery (DevOps)
- 34. Digital intelligence and AI
- 35. Cybersecurity
- 36. Digital ecosystem and partnerships

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Four priority areas for client government identified by gap to ambition, relative importance and alignment to strategy

1. Skills and People
2. Leadership and Culture
3. Advanced Analytics and AI
4. User Journeys

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DAI provided critical foundations for the digital strategy

Evidence base for digital transformation strategy

The DAI assessment provided a benchmarked capability assessment to priorities initiatives and develop a case for change for the whole of government digital transformation strategy

Identified four priority areas to focus efforts and investments

The team used DAI outputs to develop playbooks for four priority areas to support agencies to increase their digital maturity

Playbooks for advanced analytics & AI, leadership & culture, skills & people, and user journeys

Ongoing monitoring and tracking of digital performance

DAI was proposed to be integrated into client's reporting process to measure digital maturity improvements in agencies on an annual refresh cycle

Facilitated great conversations with agency leaders

DAI helped drive better conversations with the client and with the 20+ large government agencies/leaders on their digital agenda

Source: BCG case experience

Further content | BCG.com DAI page and publications

DAI-based study reports (Links)

- The Real Champions of Building the Digital Future (July 2017)
- Discovering the how and where to add digital to your privat equity (November 2017)
- Is the Digital Revolution in Aerospace and Defense in Crisis? (May 2018)
- Digital maturity is paying off (June 2018)
- How Digital Champions Invest (2019)
- The Race for Digital Advantage in Africa (March 2020)
- Digital Underinvestment Hurts Insurers (May 2020)
- Is Your Technology Ready for the New Digital Reality (May 2020)
- Bionic Champions in the Middle East (July 2020)
- The Digital Path to Business Resilience (July 2020)
- Bionic champions in the middle east (July 2020)

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