



Building a data-driven organization

VIETTELDX 2023 - UNLEASH YOUR DIGITENTIAL

16 NOVEMBER 2023

The logo for Viettel is shown in red, lowercase letters. The background of the slide features a dark blue field with golden sparks and light trails, suggesting a digital or technological theme.

Summary

1

Data-driven transformation has enabled organizations to unlock significant benefits:

- Driving improvement in core operations via cost optimization, and improved supply chain forecasting & management
- Creating additional value via closer relations with your customers, improving frequentation, pricing optimization, and unlocking upsell/cross-sell opportunities
- Building new businesses leveraging "advantaged dataset" and insight

2

GenAI is driving the new wave of data-driven transformation

- New use cases and business models are being unlocked (e.g., generative design, automated Hyper-personalized marketing, advanced robotic etc.)...
- ...requiring organizations to rethink their data strategy

3

Players across sectors are prioritizing data initiatives; yet most companies not successful in realizing data ambition due to:

- 80% companies see data-driven initiatives as top priority yet only 10% successfully achieve data ambition
- Lack of data vision, legacy architecture & governance, limited monetization strategy and failure to bring in cultural shift are main reasons for failure

4

Our recommendation to get started in data transformation: clear articulation of the "what" and "how" is critical to unlock data value potential

- What: Identifying advantaged source of data with monetization potential; and Tying data strategy to clear business outcome
- How: Building target data architecture and governance linked with analytics; and Defining the right set of talent and instill an agile mindset to scale data use cases across organizational silos

Data-driven transformation has been proven and implemented at scale

1 Advantaged operations

Data enabled core operations



Predicting size of underground oil and gas resources



JOHN DEERE

Improved service costs via predictive maintenance on agricultural equipment

Dynamic data powered supply chains



Forecasting supply chain needs and warehouse stocking levels

2 Customer Centricity

Shifted social/mobile experiences



Ready to engage anytime, anywhere -data driven experiences

Increased connectivity



Interconnected devices, applications to track habits, health

Personalized customer relationships



Leverage customer purchase history to up-sell, cross-sell

3 New business models

Platform-based models and ecosystems



Platform-players exploiting scale advantage to disrupt supply chain/pricing dynamics

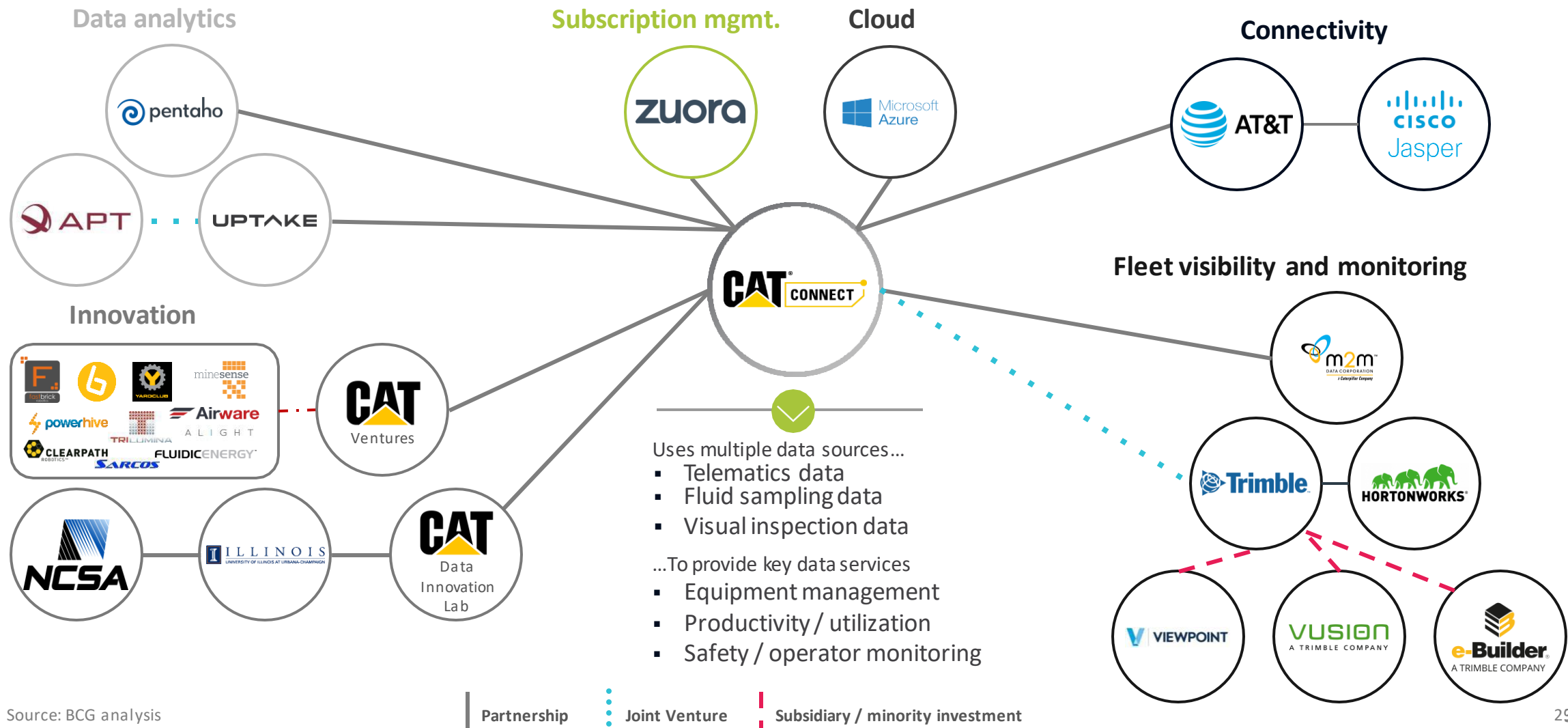
New Value Propositions



Data driven value propositions

1 Advantaged operations: Caterpillar orchestrates a data ecosystem powered by partnerships to provide operational improvement services

Indicative based on outside-in analysis; not exhaustive





2 Customer centricity: Starbucks' personalized automated offers allowed by large-scale data deployment

Starbucks leverage customer data to build hyper-personalized loyalty program,

Impact on Starbucks

Engagement & rewards

The most compelling rewards program with everyday relevance

Churn prevention through preemptive targeting and retention offers

Payment & Partnerships

The easiest, most sensible ways to pay at Starbucks and beyond



Personalization

Offers, communications and service tailored to individual customers

Hyper-personalized e-mail campaigns (x13,000+ variants/week after 1 year)

Mobile first & ordering

The fastest, and most convenient way to order

+\$150M

Annual net incremental revenues

2.5x

Improvement in marketing engagement

10%

Reduction in churn

3 New business model: KLM leveraged its proprietary data and expertise to build service to improve airline operations worldwide

KLM & BCG combined forces...

...to create a comprehensive suite of integrated data products

Proprietary data from >700 daily flights across 150+ destinations

Significant operations expertise advising complex network carriers

World class data science experience

Suite of proven tools



Pathfinder
Smart & robust scheduler



Vanguard
DbE disruption optimiser



Sentry
DoE disruption optimiser



Harbinger
Crew disruption optimiser



Voyager
Schedule delay predictor



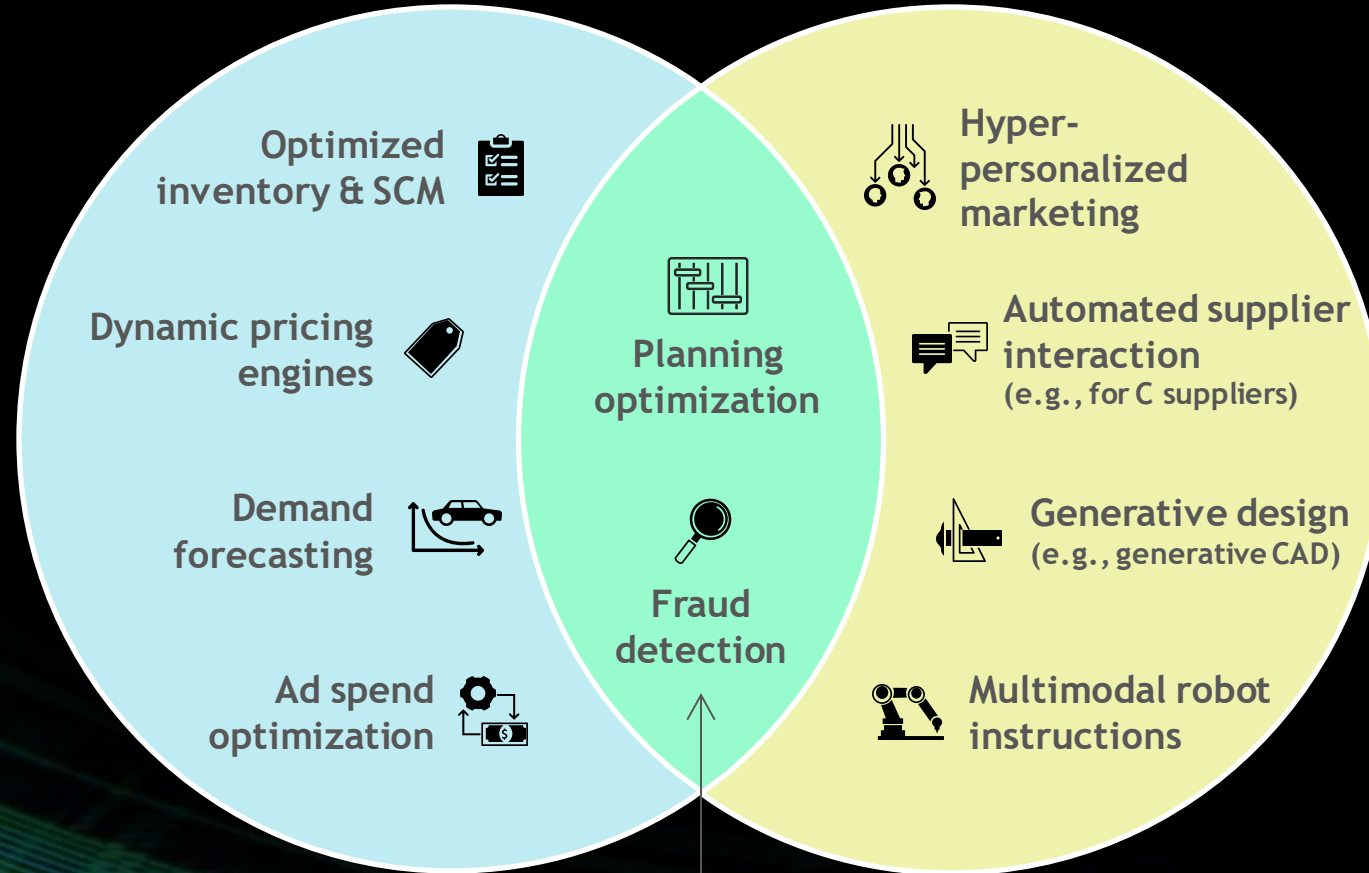
Impact



airlines around the world are using and drawing benefits from the platform

GenAI is driving the next wave of data-driven transformation

Use Traditional ML for data-driven decision-making



Non-exhaustive

Use Generative AI for new content generation, automation, complex problem solving



Enabled by tech advances:

- GPU performance
- Compute cost reduct.
- Public data availability
- New model archetypes & training techniques
- AI research funding

When value pools overlap, compare cost, capability and talent requirements

GenAI already making impact, requiring organizations to adapt

Productivity gains are real and proven

55%

faster completion of coding tasks with higher success rate using **GitHub CoPilot**¹

37%

faster completion of knowledge work with comparable quality results using **OpenAI ChatGPT**²

Companies' value prop are being challenged

-49%

drop in Chegg's stock share price after CEO attributed the slowdown in subscriptions to Chat GPT

Barriers to AI are lower than ever

Conversational UX eases human adoption

Same model can handle **multiple downstream** tasks

Robust against unstructured, unlabeled messy data

2 months

to 100M users for **OpenAI ChatGPT**, the fastest product on record⁴

Widely expected to create outsized value

~\$20B+

of committed VC funding for Generative AI in the last three years alone⁵

1. <https://github.blog/2022-09-07-research-quantifying-github-copilots-impact-on-developer-productivity-and-happiness/>
2. <https://joshbersin.com/2023/03/new-mit-research-shows-spectacular-increase-in-white-collar-productivity-from-chatgpt>
3. <https://www.cnbc.com/2023/05/02/chegg-drops-more-than-40percent-after-saying-chatgpt-is-killing-its-business.html>
4. Reuters, Yahoo! Finance, OpenAI
5. Crunchbase, Pitchbook, BCG Analysis

Data is at the heart of several initiatives that are higher priority now

~80%

respondents feel following initiatives are higher priority due to COVID-19



Note: n=825
Source: DSR Global 2022 Survey
Q. Which of your digital initiatives are now likely to become of higher priority?

Digital marketing



Linked home delivery with loyalty program to drive repeat purchases from regular customers during lockdowns

Customer centricity/ personalizing/loyalty



Created virtual store using VR & implemented digitization strategy faster than planned

Data driven supply chain



Leverages satellite data and AI to improve traceability of raw materials

Implementing AI solutions at scale



Released China's first open- source AI model for pneumonia CT image analysis

Strengthening cybersecurity



Acquired encryption service, amidst privacy concerns, as part of 90-day push to fix security flaws

Consolidating databases and managing data at scale



Partners across public services, medical, media etc. to consolidate data & provide open source tools against COVID-19

But reaching ambitions has proven challenging for most companies

~10%

of companies reached the ambition they had set

Note: Market ambition was to grow data maturity index by >50%. However, it only grew by 18%

Source: BCG Data Capability Maturity (DACAMA) Survey, 2022, n=582, BCG Analysis

5 common pitfalls in realizing ambitions



Lack of ambition and vision for data, incremental thinking

Unclear on value proposition, incremental steps instead of blank slate visioning



Missing creativity to push new business models, partnerships

Limited creativity around strategizing on monetization opportunities



Siloed data, not interoperable, legacy systems

Not interoperable data, stuck in organizational silos; lack of foundational architecture



Lack of understanding of what it takes to activate, scale

Missing link on what it takes to institute data governance to activate, scale outcomes



Unable to bring data culture shift across organization

Limited adoption from top & lower level employees –failure in driving cultural shift

A winning 'data strategy' clearly articulates the 'What' & 'How'

What

How

Advantaged Datasets

A clear path to 'advantaged' data self funded by a creative monetization strategy

Analytics

Leading **analytics capabilities** applied over a **future proof & secure data & digital platform**

Business Outcomes

A bold **vision** tied to **business outcomes** and value levers, creating sustainable competitive advantage

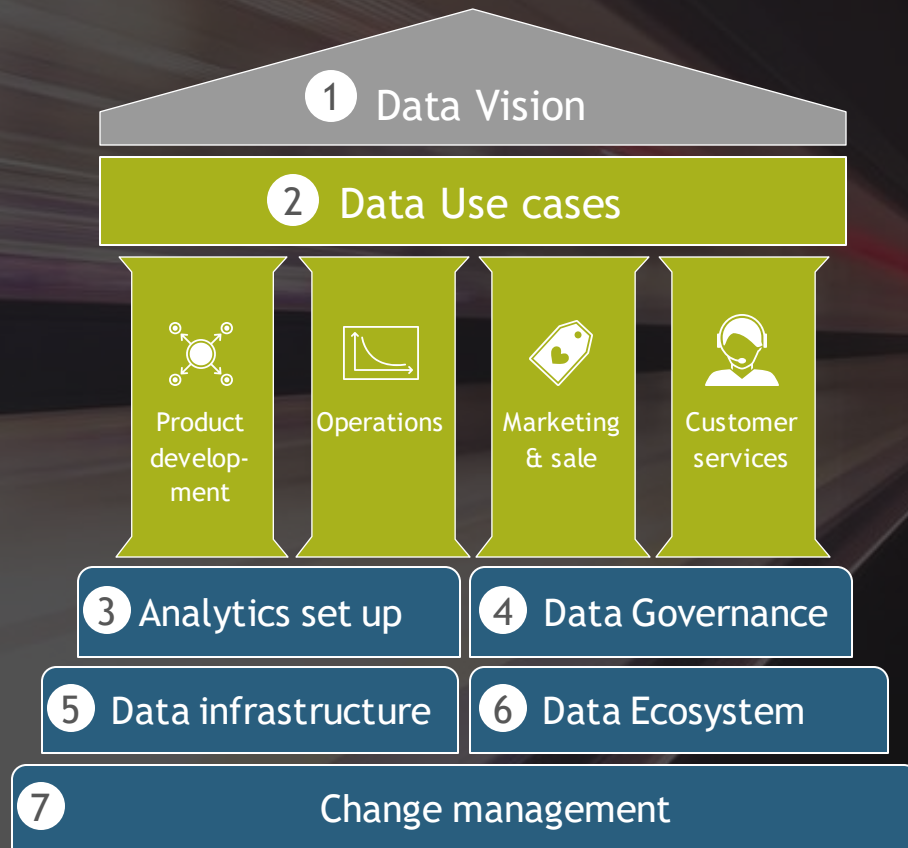
Integration

Data **governance** & understanding to enable differential aggregation and **integration**

Culture

Data & digital skills along with organization wide culture of using data with **speed and agility** to drive decisions while maintaining a trust advantage

Our comprehensive Data Capability Framework to assess and develop data capability



1

- Why are we interested in data? What are we trying to achieve?
- Improvement of current practices or radical transformation?

2

- Which are the main macro use-cases?
- How much value do we expect from each?

3

- Have we implemented the right analytics functions?
- Do we have a thorough analytics process, leading to concrete results?

4

- Do we have in place a Data Management organization?
- Have we launched basic Data hygiene actions (incl. defining quality and KQIs)?

5

- Do we have an infrastructure suitable to our vision and future use cases (incl. technologies and operating model)?

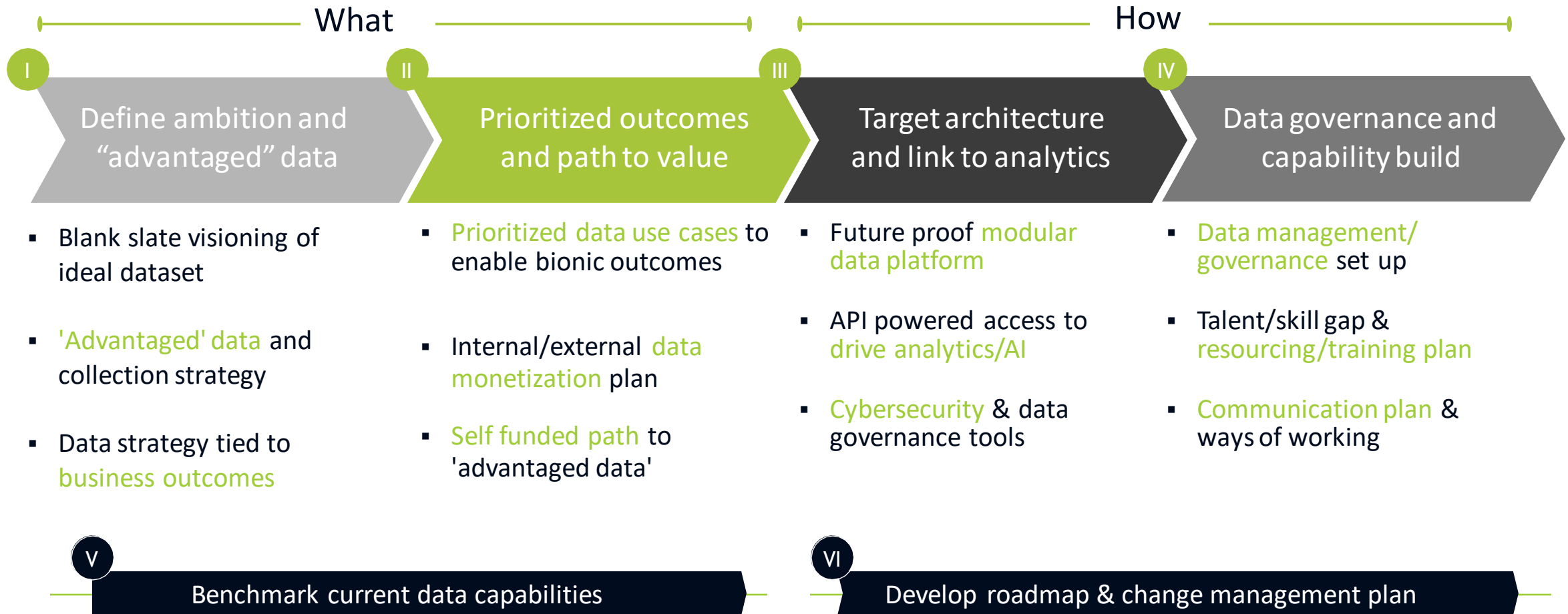
6

- What is the optimum strategy for building and leveraging a data ecosystem?
- How should we manage the ecosystem? What role should we play in it?

7

- How do we handle change management from legacy to a data-driven company?
- Do we leverage the new ways of working?

Our action plan to define a comprehensive data strategy



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