CIONET

CIONET MASTERCLASS-PROGRAMM

26. & 27. September 2024

AI STRATEGY Masterclass

Bringen Sie Ihr Unternehmen mit der passenden
KI-Strategie an die Spitze Ihrer Branche

Grundlagen der KI und Aufbau einer strategischen Vision

10:00 Uhr - 10:45 Uhr - **Einleitungsrunde | Format: Interaktive Gruppenarbeit**

- Teilnehmer stellen sich vor und präsentieren einen aktuellen oder geplanten KI-Use Case.

10:45 Uhr - 11:20 Uhr - **KI-Strategie: Organisationen Befähigen | Format: Impulsvortrag**

- Über die transformative Rolle von KI in Organisationen mit Schwerpunkt auf strategischer Integration.

11:20 Uhr - 12:15 Uhr - **Visionserstellung für KI | Format: Interaktive Gruppenarbeit**

- Teilnehmer erarbeiten im Workshop-Setting die KI-Vision für ihre Organisation, unterstützt durch direktes Peer-Feedback.

12:15 Uhr - 12:30 Uhr - **Gruppenpräsentation und Reflexion | Format: Kollaboratives Gruppenfeedback**

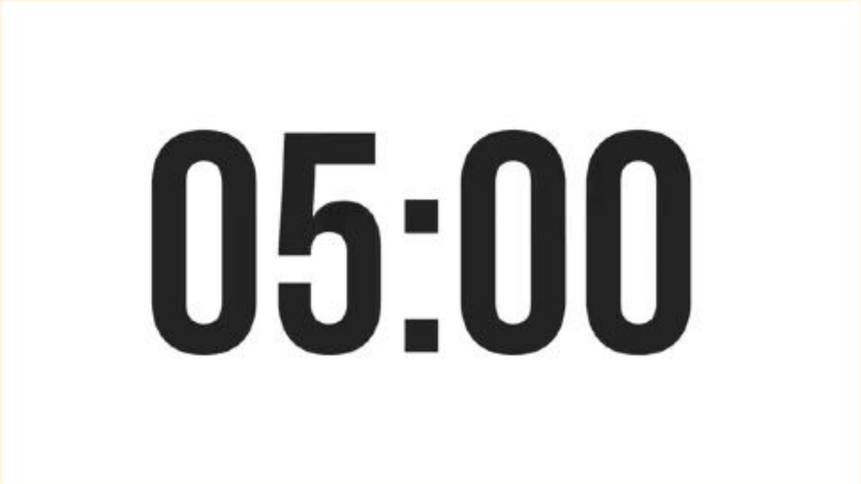
- Präsentation der KI-Visionen und interaktives Feedback der Gruppe zur Machbarkeit und zu den Herausforderungen der Umsetzung davon.

CIONET

Introduction

Separate into 2 groups

1) Introduce Yourself
2) Fun Fact
3) Your Organization
4) AI Maturity
5) Any AI Initiatives
6) Your AI Use Case
7) Expectations



Grundlagen der KI und Aufbau einer strategischen Vision

10:00 Uhr - 10:45 Uhr - **Einleitungsrunde | Format: Interaktive Gruppenarbeit**

- Teilnehmer stellen sich vor und präsentieren einen aktuellen oder geplanten KI-Use Case.

10:45 Uhr - 11:20 Uhr - **KI-Strategie: Organisationen Befähigen | Format: Impulsvortrag**

- Über die transformative Rolle von KI in Organisationen mit Schwerpunkt auf strategischer Integration.

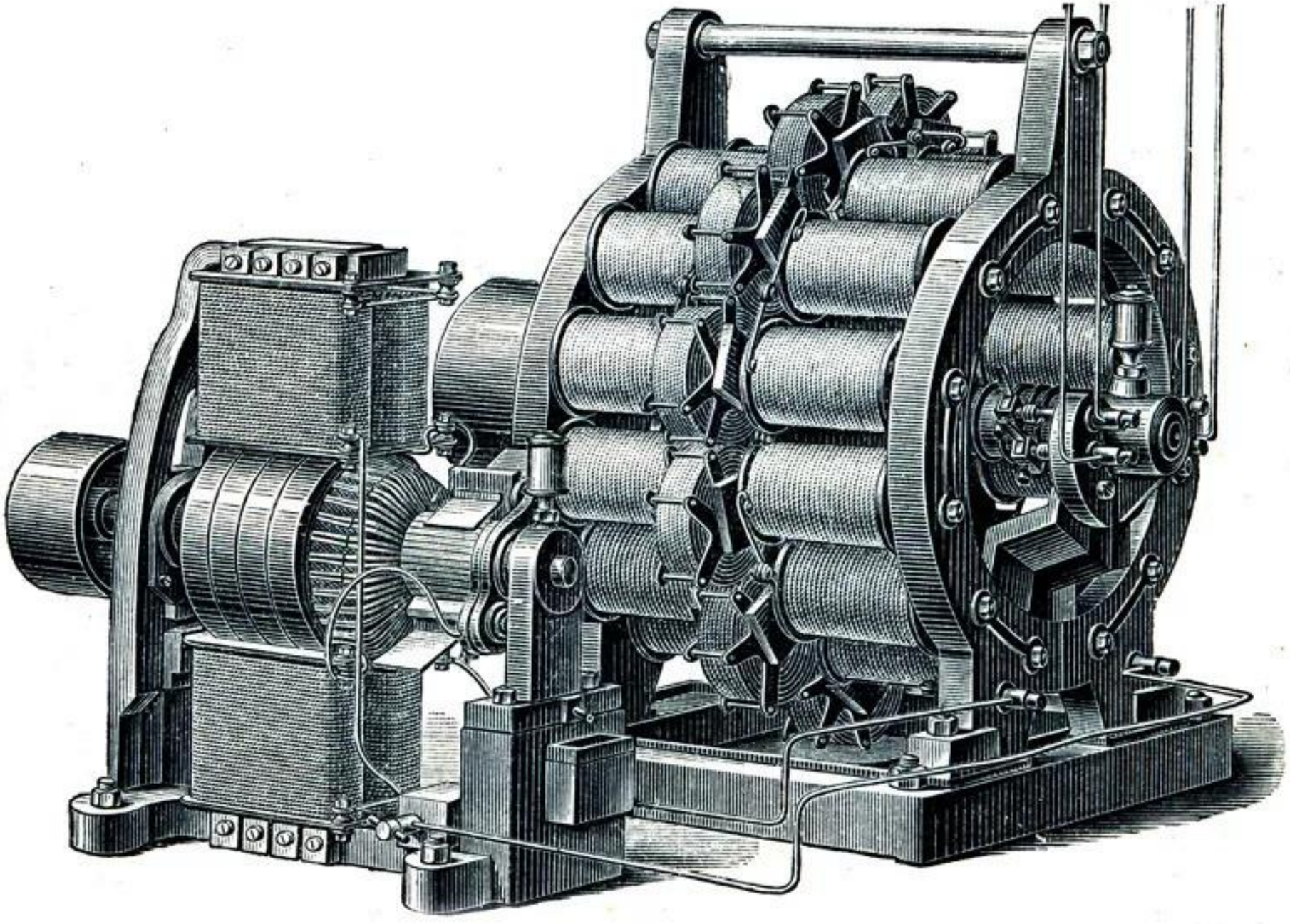
11:20 Uhr - 12:15 Uhr - **Visionserstellung für KI | Format: Interaktive Gruppenarbeit**

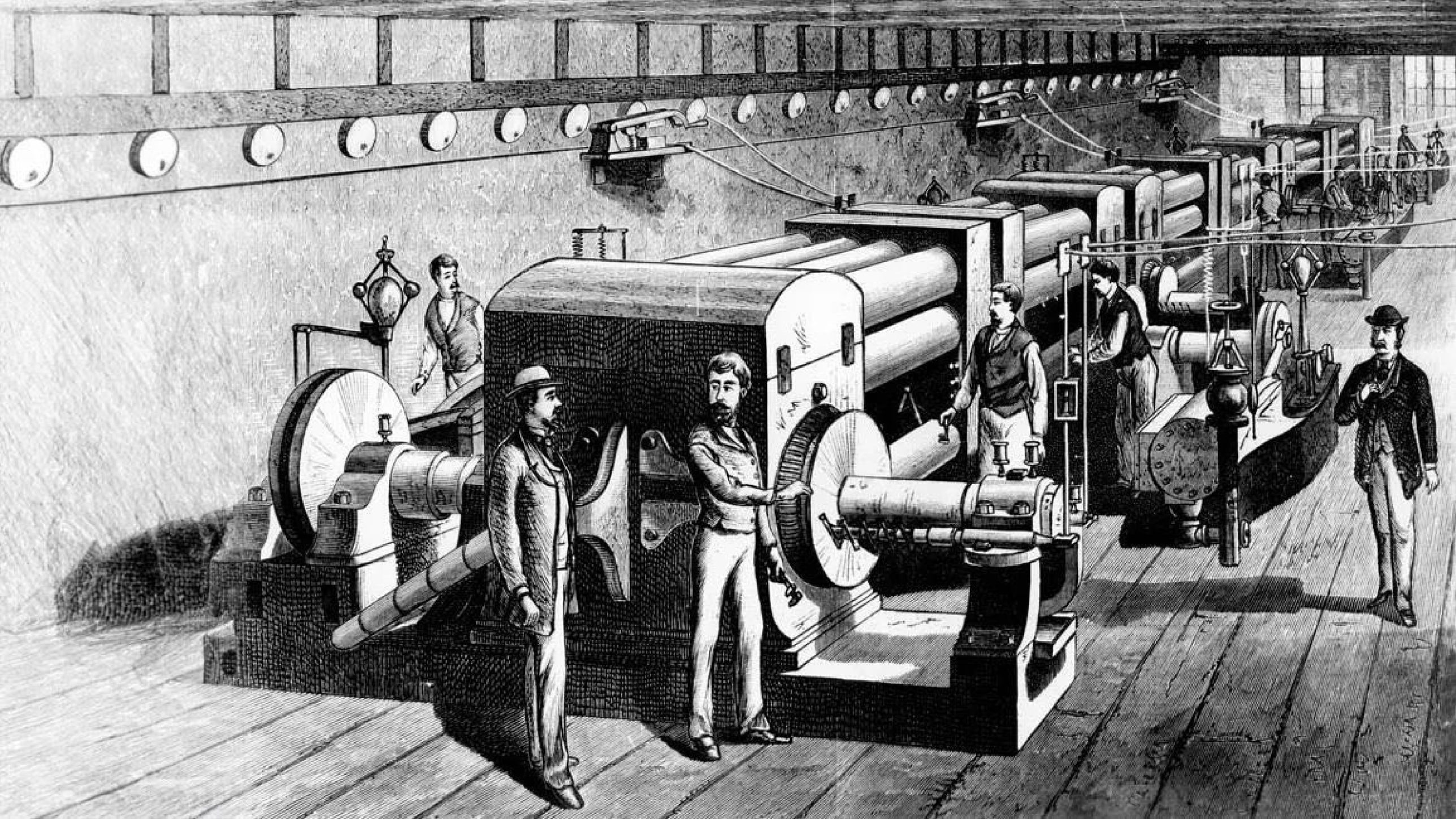
- Teilnehmer erarbeiten im Workshop-Setting die KI-Vision für ihre Organisation, unterstützt durch direktes Peer-Feedback.

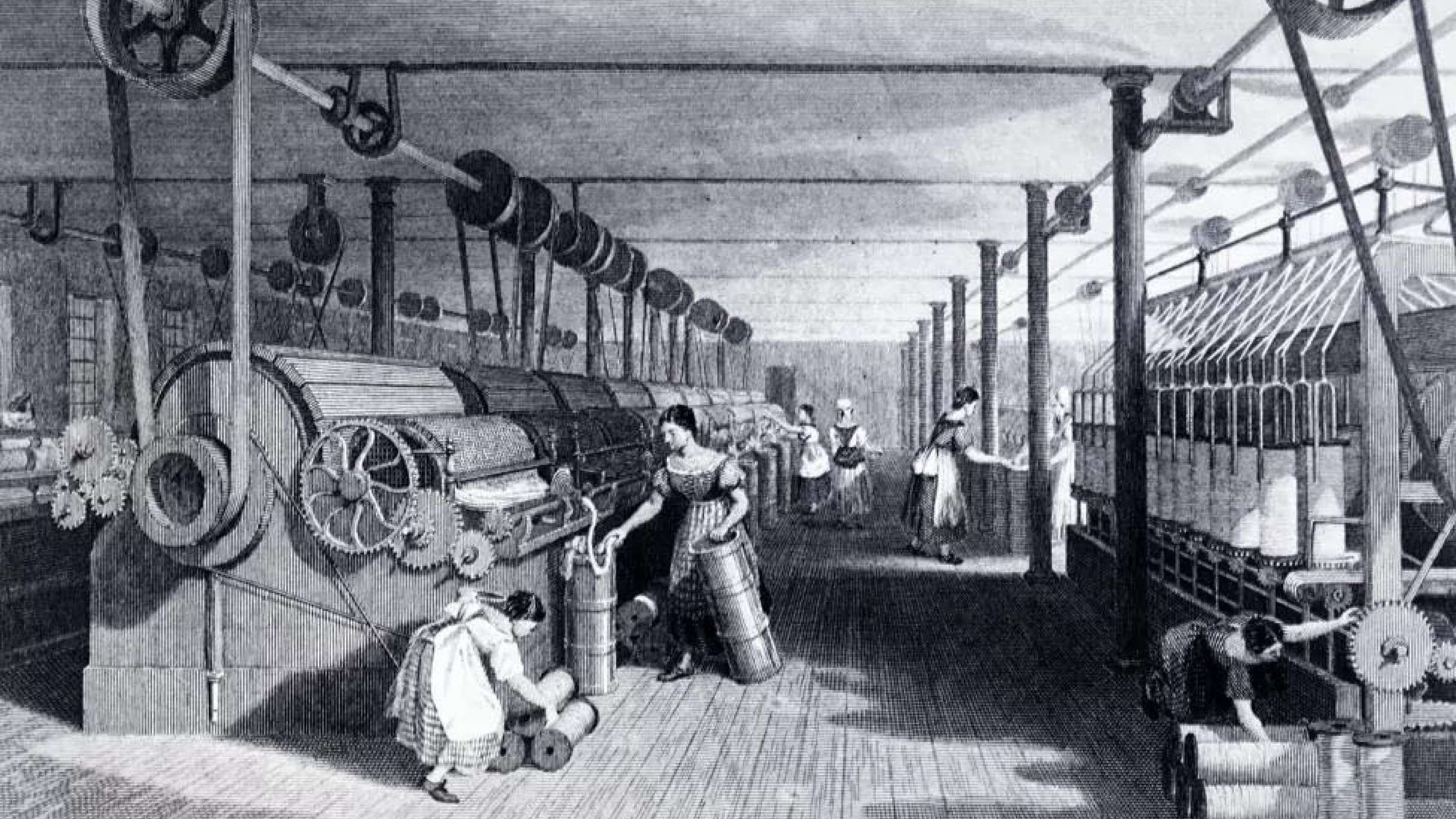
12:15 Uhr - 12:30 Uhr - **Gruppenpräsentation und Reflexion | Format: Kollaboratives Gruppenfeedback**

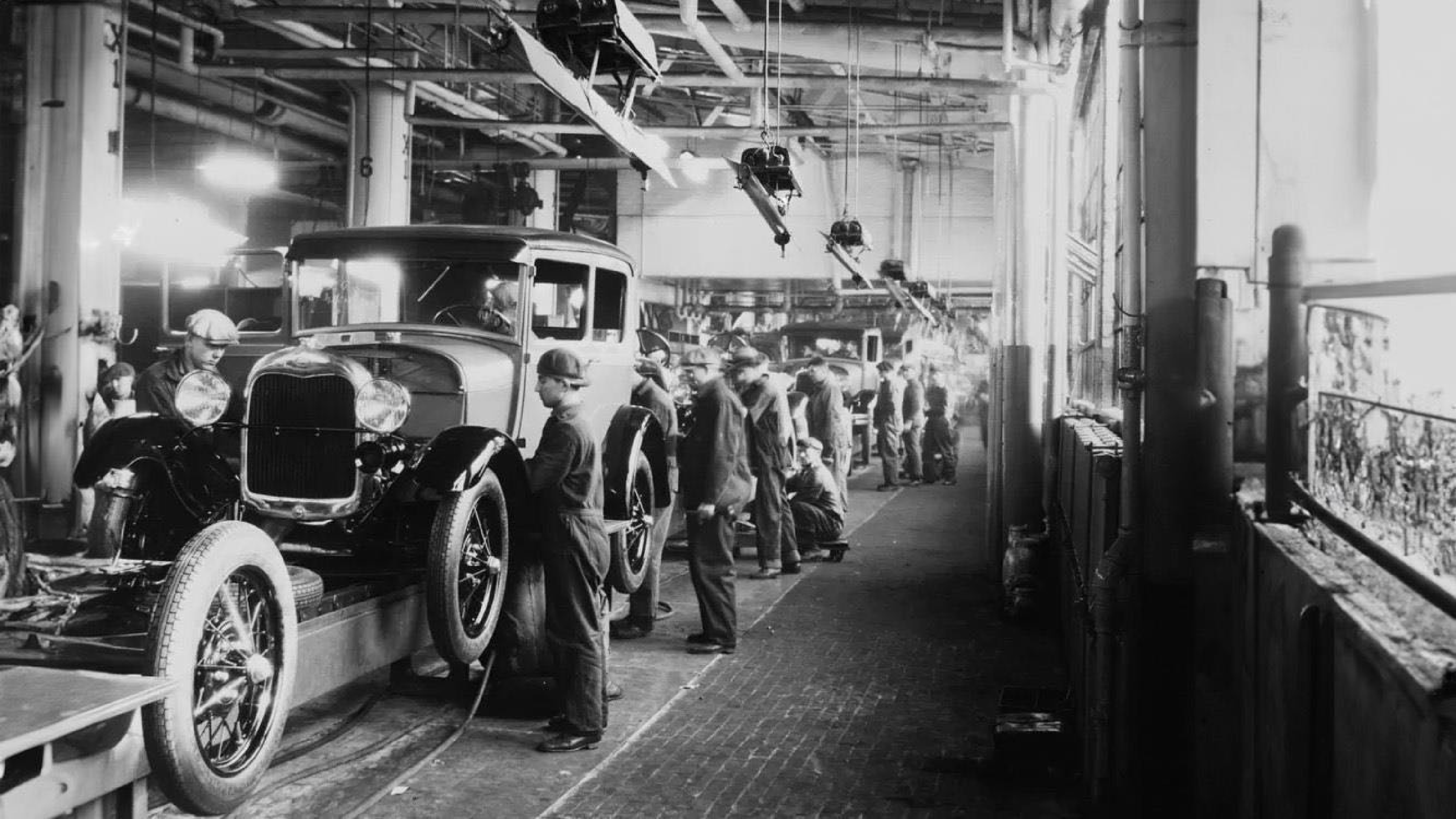
- Präsentation der KI-Visionen und interaktives Feedback der Gruppe zur Machbarkeit und zu den Herausforderungen der Umsetzung davon.

CIONET





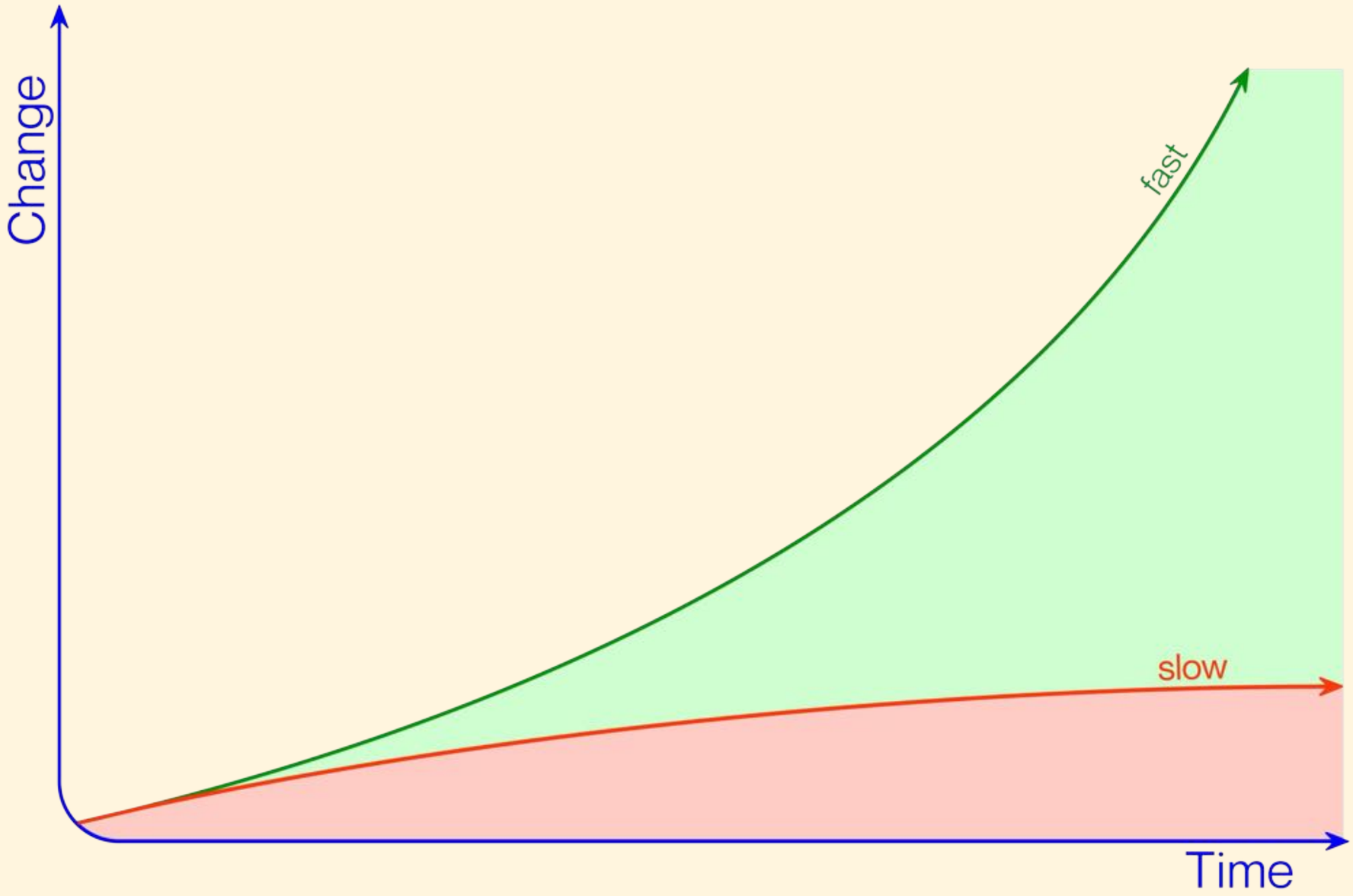




Agenda

The Paradox of Applying AI
AI Maturity
AI Strategy
AI Enabling Factors

The Paradox of Applying AI



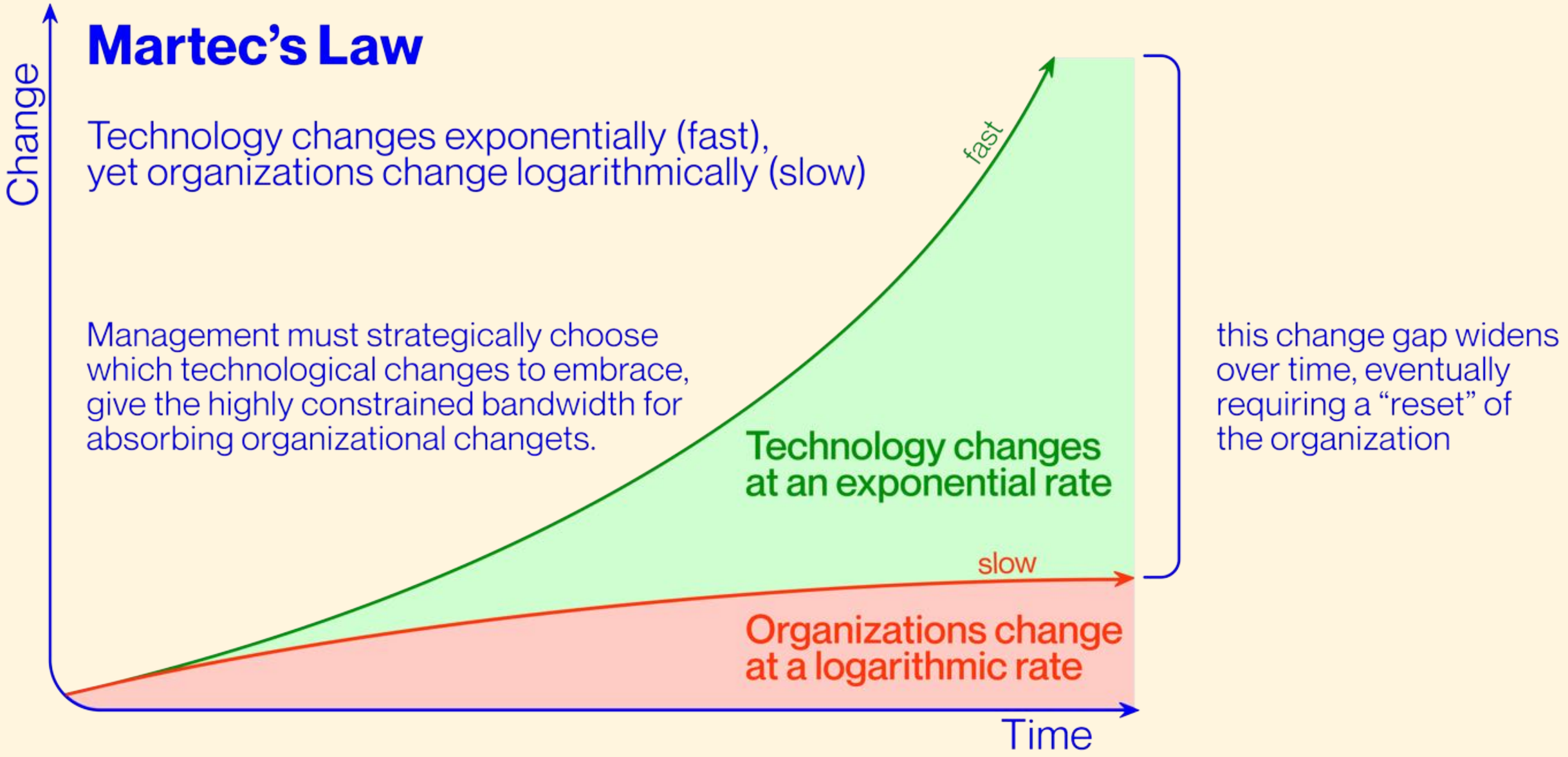
Technology changes at an exponential rate

Organizations change at a logarithmic rate

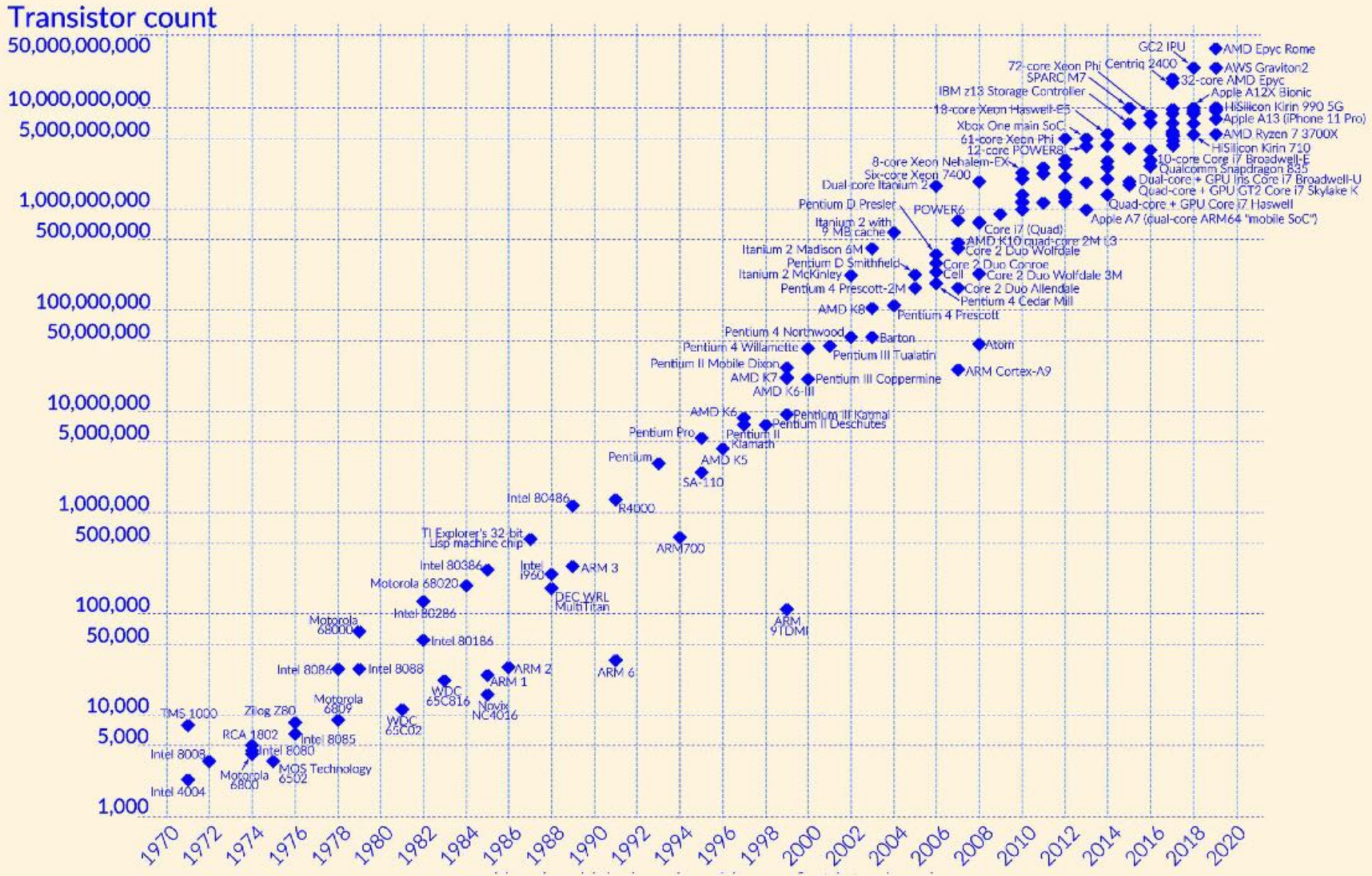
Martec's Law

Technology changes exponentially (fast),
yet organizations change logarithmically (slow)

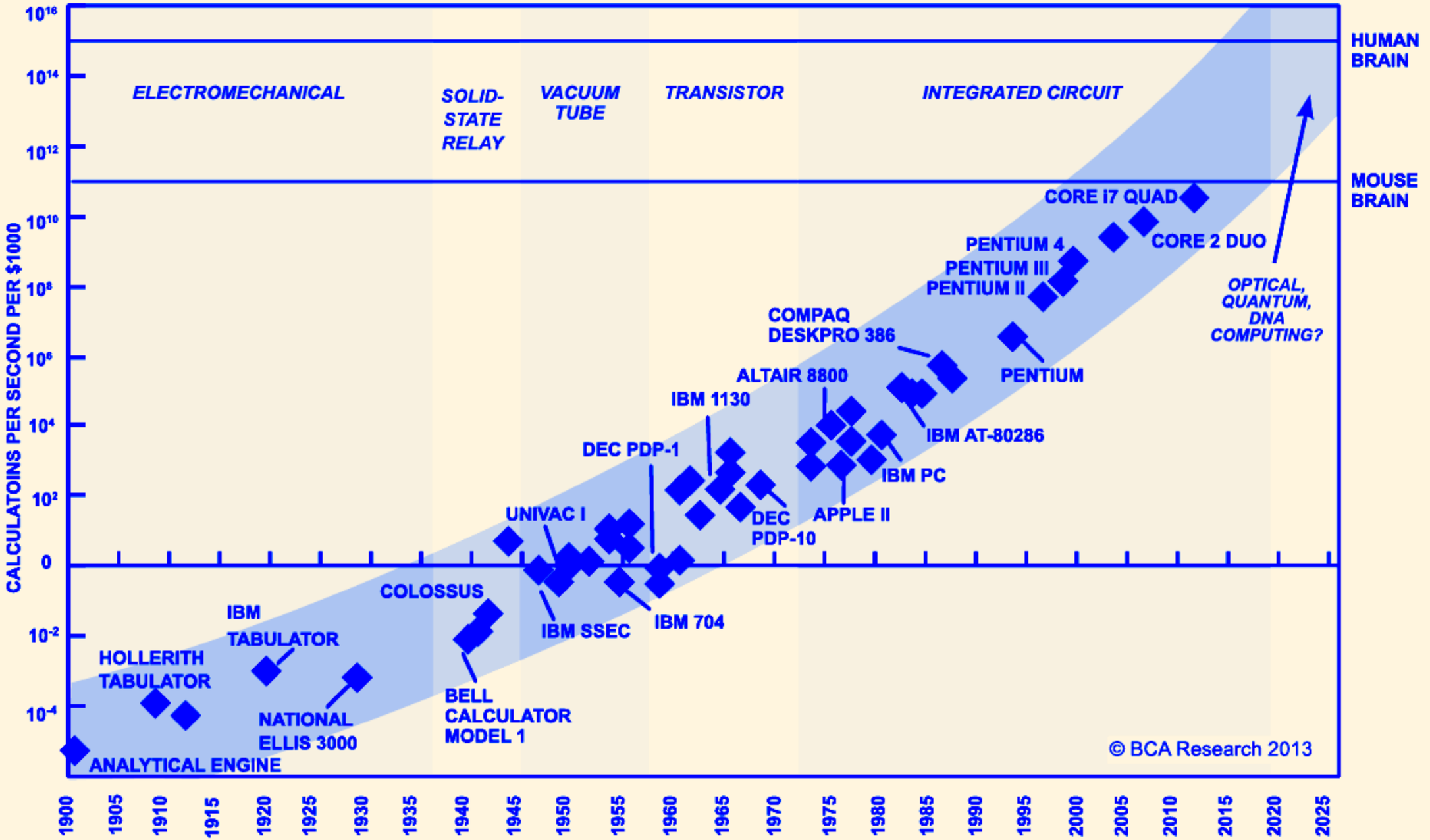
Management must strategically choose which technological changes to embrace, give the highly constrained bandwidth for absorbing organizational changets.



this change gap widens over time, eventually requiring a "reset" of the organization

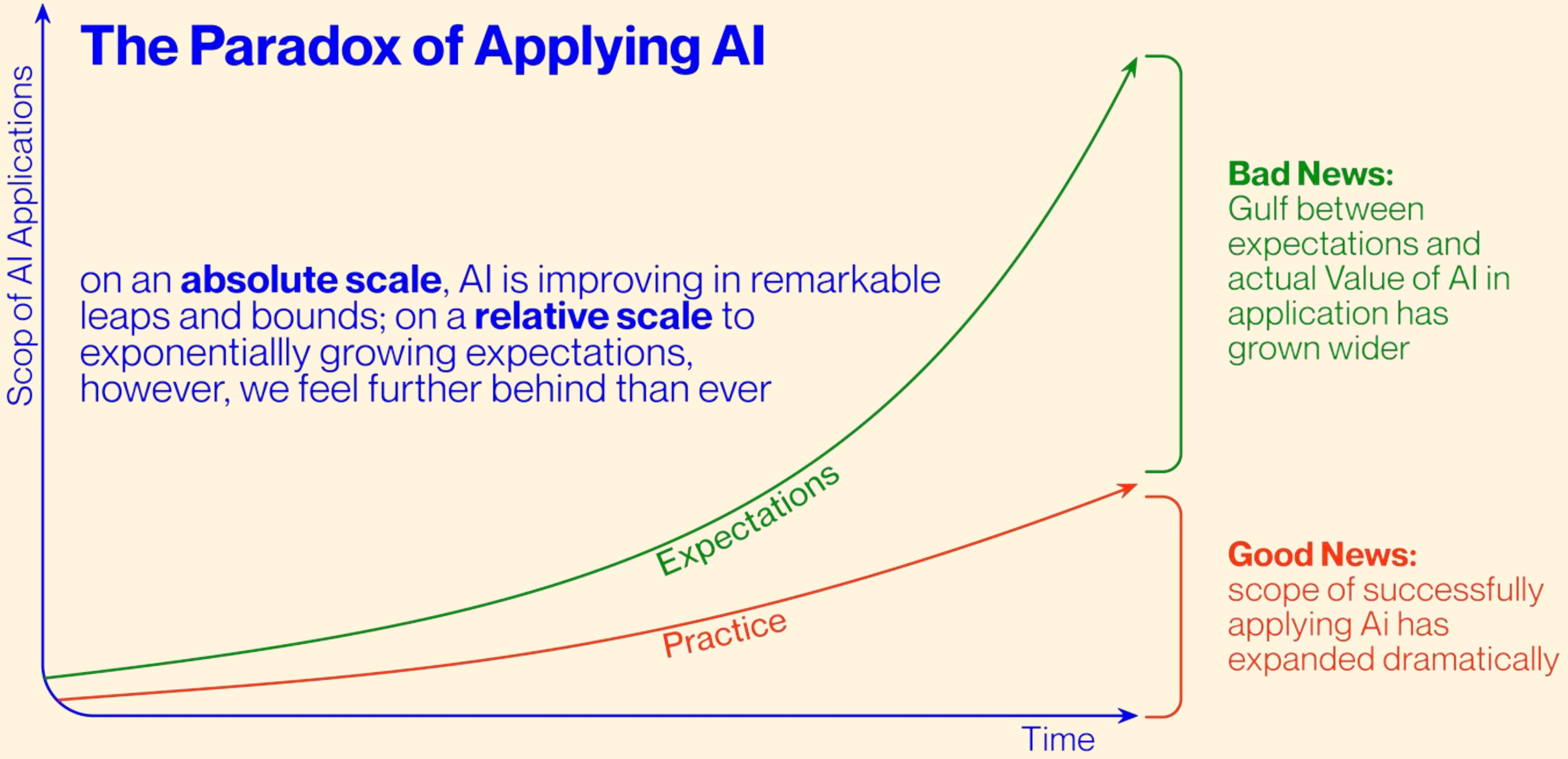

Transistor count
50,000,000,000
10,000,000,000
5,000,000,000
1,000,000,000
500,000,000
100,000,000
50,000,000
10,000,000
5,000,000
1,000,000
500,000
100,000
50,000
10,000
5,000
1,000
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
GC2 IPU
AMD Epyc Rome
72-core Xeon Phi
Centriq 2400
AWS Graviton2
SPARC M7
32-core AMD Epyc
IBM z13 Storage Controller
Apple A12X Bionic
18-core Xeon Haswell-E5
HiSilicon Kirin 990 5G
Apple A13 (iPhone 11 Pro)
Xbox One main SoC
AMD Ryzen 7 3700X
61-core Xeon Phi
12-core POWER8
HiSilicon Kirin 710
8-core Xeon Nehalem-EX
10-core Core i7 Broadwell-E
Six-core Xeon 7400
Qualcomm Snapdragon 835
Dual-core Itanium 2
Dual-core + GPU Iris Core i7 Broadwell-U
Quad-core + GPU GT2 Core i7 Skylake K
Pentium D Presler
Quad-core + GPU Core i7 Haswell
POWER6
Apple A7 (dual-core ARM64 "mobile SoC")
Itanium 2 with 9 MB cache
Core i7 (Quad)
AMD K10 quad-core 2M L3
Itanium 2 Madison 6M
Core 2 Duo Wolfdale
Pentium D Smithfield
Core 2 Duo Conroe
Itanium 2 McKinley
Cell
Core 2 Duo Wolfdale 3M
Pentium 4 Prescott-2M
Core 2 Duo Allendale
Pentium 4 Cedar Mill
AMD K8
Pentium 4 Prescott
Pentium 4 Northwood
Barton
Atom
Pentium 4 Willamette
Pentium III Tualatin
Pentium II Mobile Dixon
ARM Cortex-A9
AMD K7
Pentium III Coppermine
AMD K6-III
AMD K6
Pentium III Katmai
Pentium II Deschutes
Pentium Pro
Pentium II Klamath
Pentium
AMD K5
SA-110
Intel 80486
R4000
TI Explorer's 32-bit Lisp machine chip
ARM700
Intel 80386
Intel i960
ARM 3
Motorola 68020
DEC WRL MultiTitan
Intel 80286
ARM 9TDMI
Motorola 68000
Intel 80186
Intel 8086
Intel 8088
ARM 2
ARM 1
ARM 6
WDC 65C816
Motorola 6809
Novix NC4016
Zilog Z80
WDC 65C02
TMS 1000
RCA 1802
Intel 8085
Intel 8008
Intel 8080
Motorola 6800
MOS Technology 6502
Intel 4004


Performance
Technology Limits
New Technology
Old Technology
Effort

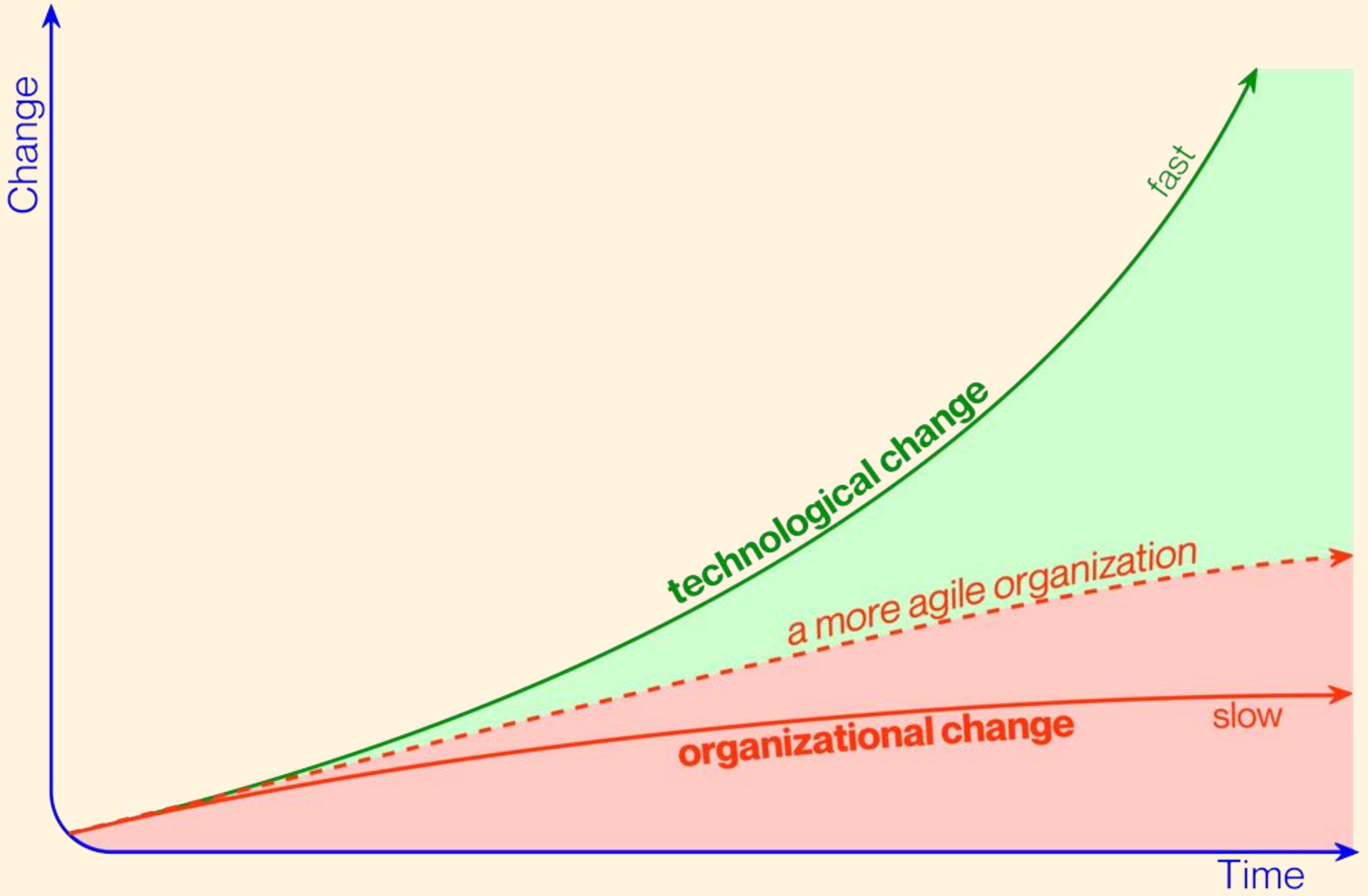

CALCULATOINS PER SECOND PER $1000
10^{16}
10^{14}
10^{12}
10^{10}
10^{8}
10^{6}
10^{4}
10^{2}
0
10^{-2}
10^{-4}
HUMAN BRAIN
MOUSE BRAIN
ELECTROMECHANICAL
SOLID-STATE RELAY
VACUUM TUBE
TRANSISTOR
INTEGRATED CIRCUIT
ANALYTICAL ENGINE
HOLLERITH TABULATOR
IBM TABULATOR
NATIONAL ELLIS 3000
COLOSSUS
BELL CALCULATOR MODEL 1
UNIVAC I
IBM SSEC
IBM 704
DEC PDP-1
IBM 1130
DEC PDP-10
ALTAIR 8800
APPLE II
IBM PC
COMPAQ DESKPRO 386
IBM AT-80286
PENTIUM
PENTIUM II
PENTIUM III
PENTIUM 4
CORE 2 DUO
CORE I7 QUAD
OPTICAL, QUANTUM, DNA COMPUTING?
1900
1905
1910
1915
1920
1925
1930
1935
1940
1945
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
© BCA Research 2013

Two Distinct Eras of Compute Usage in Training AI Systems

The Paradox of Applying AI



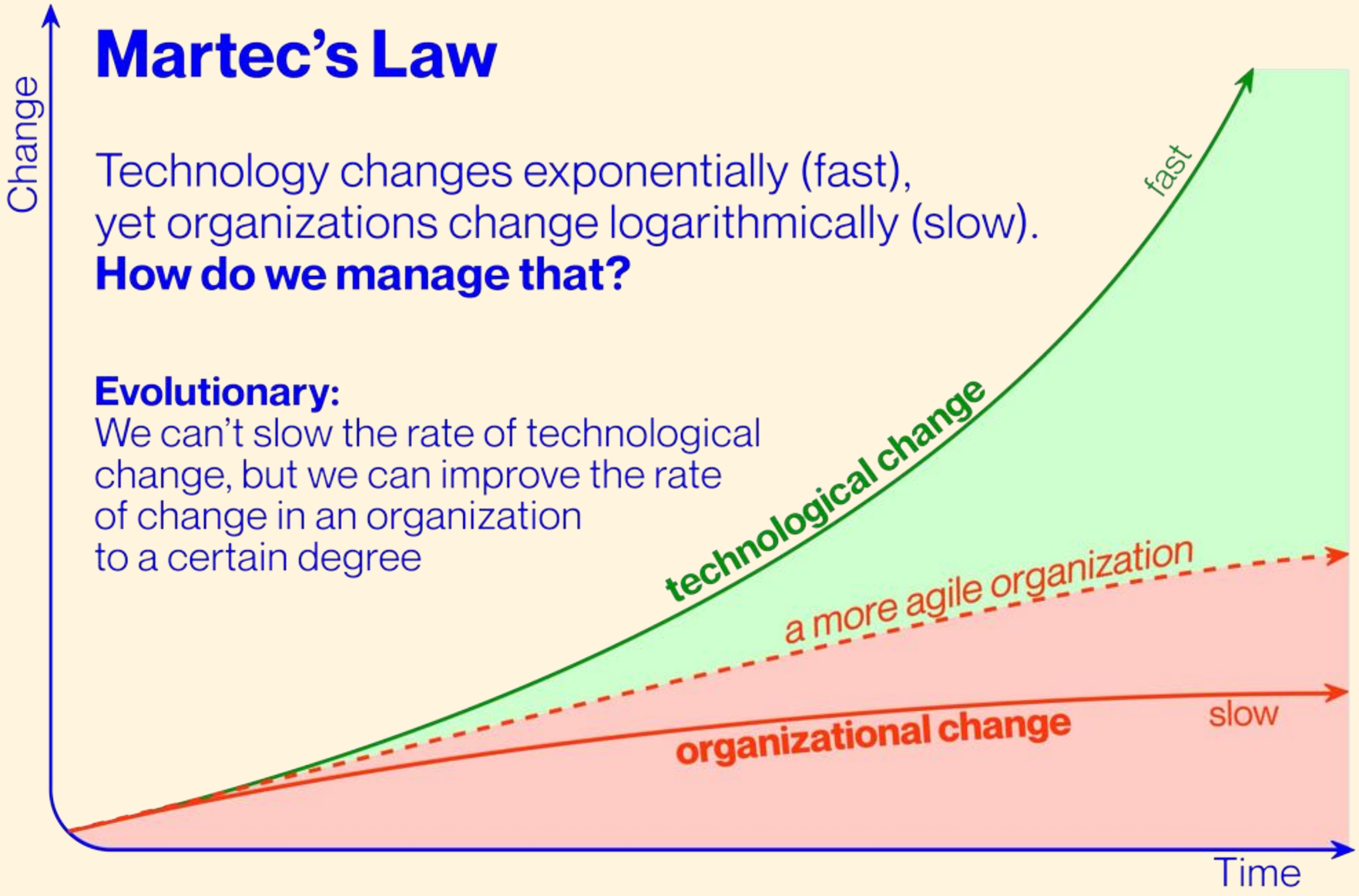

Data
AI
Prediction
Action
Value


Change
fast
technological change
a more agile organization
organizational change
slow
Time

Martec's Law

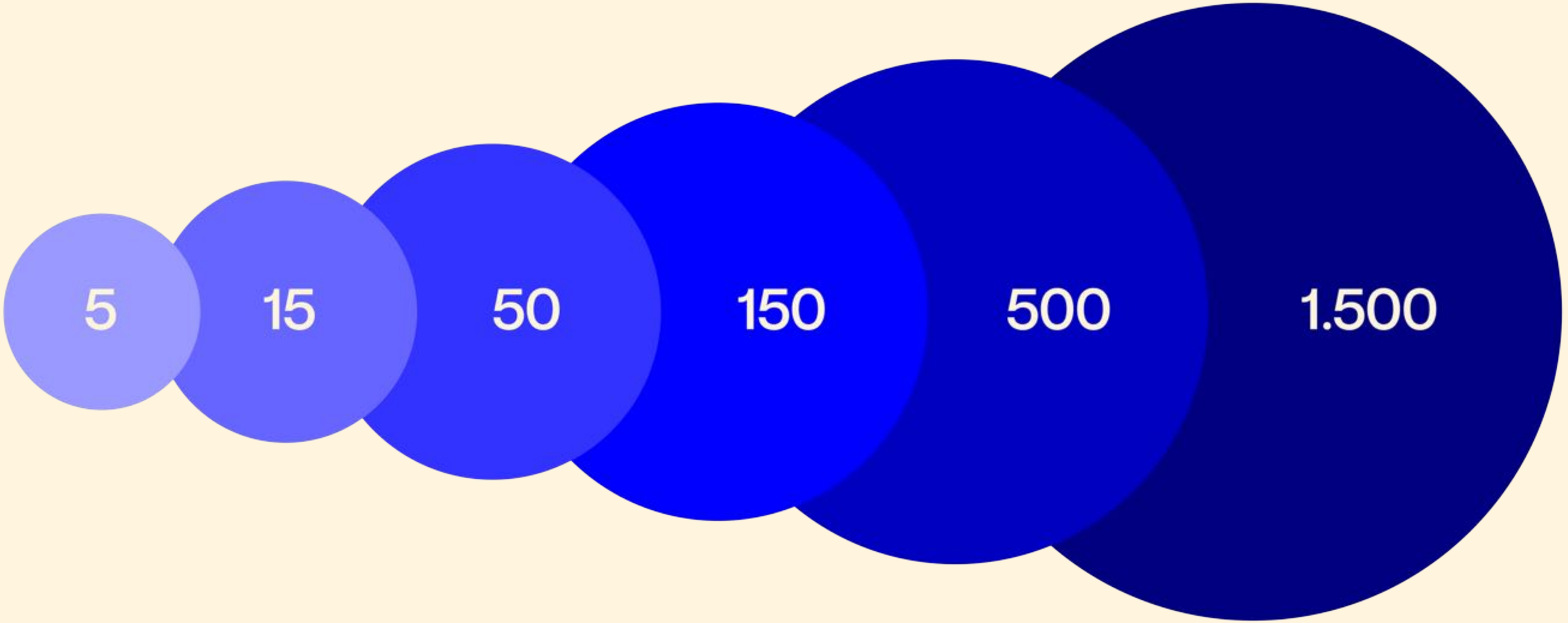
Technology changes exponentially (fast),
yet organizations change logarithmically (slow).
How do we manage that?

Evolutionary:
We can't slow the rate of technological change, but we can improve the rate of change in an organization to a certain degree



by becoming a more adaptive organization – such as with **agile and lean management practices** – the coefficient on organizational change rates can increase.

Social Brain Theory



Very Close Friends
You would confide in them

Close Friends

Friends
You would invite them to a party

Acquaintances
You remember how you met

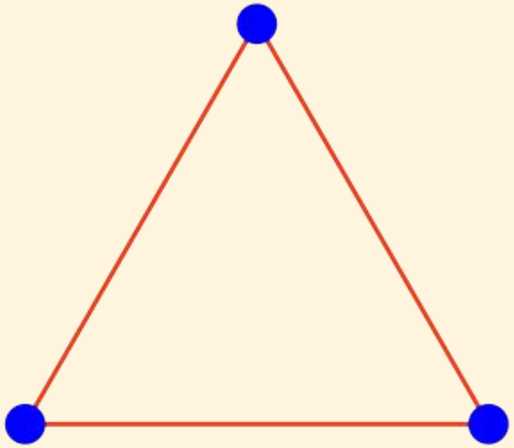
People
You could put a name to a face

Communication Complexity

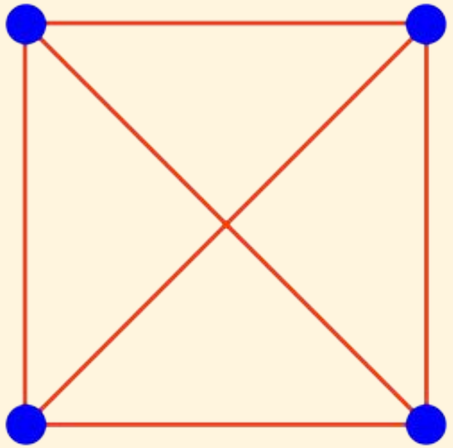
When a group jumps from three to four, there may **only be one more person, but twice as many lines of communication** are suddenly at work.

Add a few more and soon **you will have an intricate network to manage.**

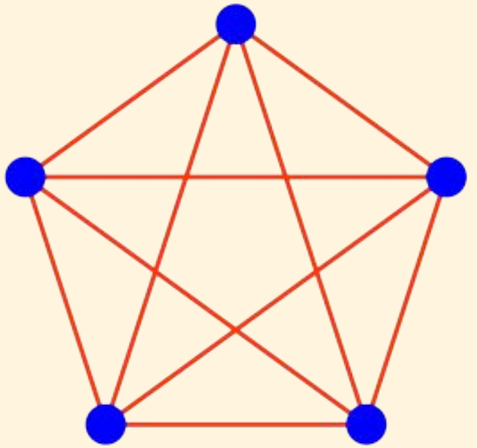
2 people
1 line



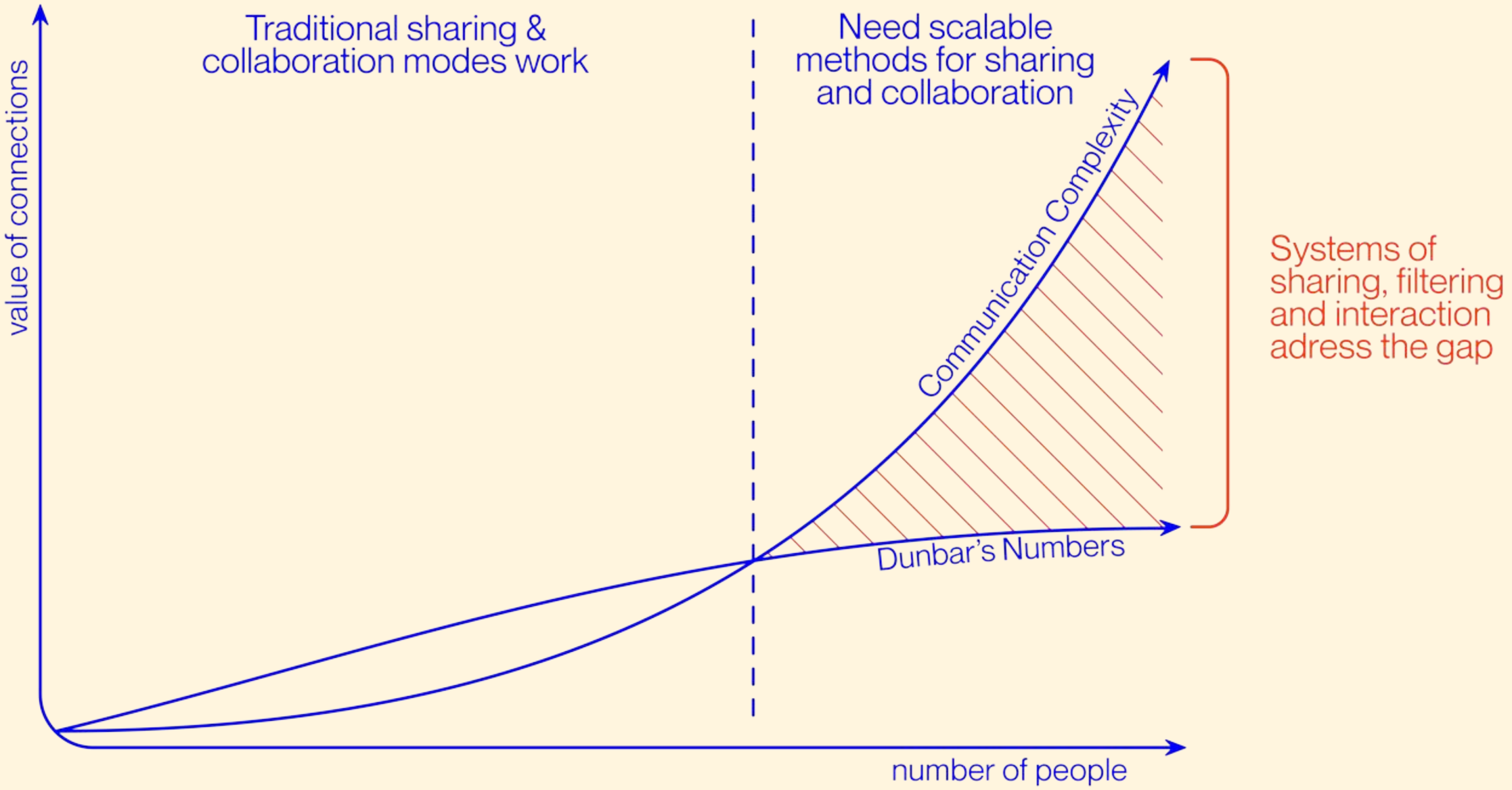
3 people
3 lines



4 people
6 lines



5 people
10 lines

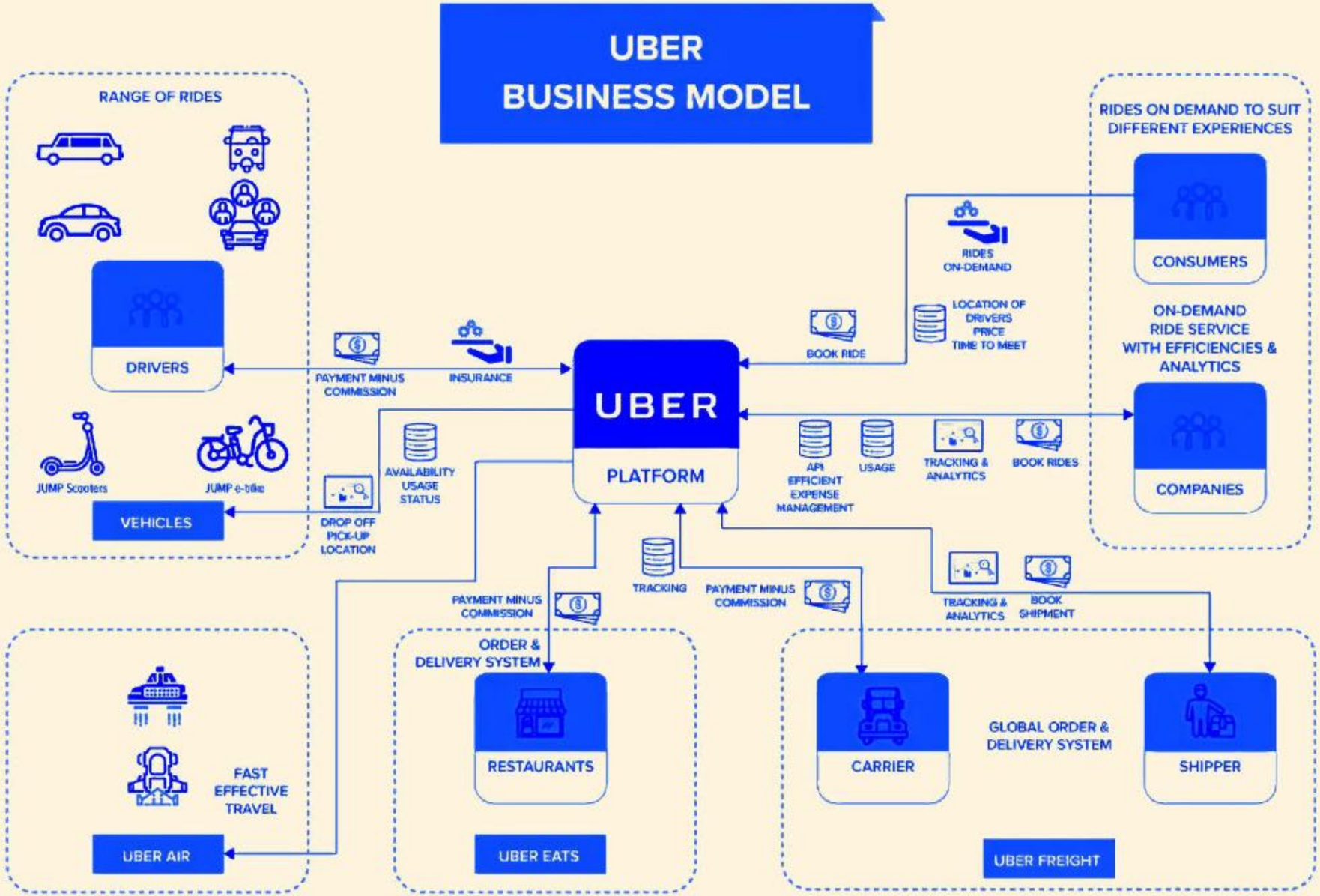

Traditional sharing &
collaboration modes work
Need scalable
methods for sharing
and collaboration
value of connections
Communication Complexity
Dunbar's Numbers
number of people
Systems of
sharing, filtering
and interaction
adress the gap

The AI Enabled Organization

Zero Operational Cost

The concept of zero operational cost refers to an idealized scenario where the operational expenses of certain processes or services are effectively negligible.

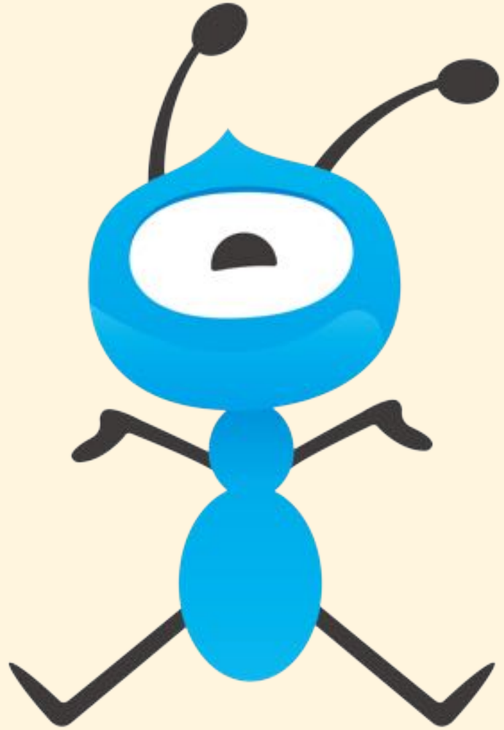
It’s important to note that truly zero operational cost is largely theoretical, as there will almost always be some cost involved, whether it’s energy consumption, maintenance, or other overheads. However, the goal is to minimize these costs as much as possible.


UBER
BUSINESS MODEL
RANGE OF RIDES
DRIVERS
JUMP Scooters
JUMP e-bike
VEHICLES
PAYMENT MINUS COMMISSION
INSURANCE
AVAILABILITY USAGE STATUS
DROP OFF PICK-UP LOCATION
UBER
PLATFORM
BOOK RIDE
RIDES ON-DEMAND
LOCATION OF DRIVERS PRICE TIME TO MEET
RIDES ON DEMAND TO SUIT DIFFERENT EXPERIENCES
CONSUMERS
ON-DEMAND RIDE SERVICE WITH EFFICIENCIES & ANALYTICS
COMPANIES
API EFFICIENT EXPENSE MANAGEMENT
USAGE
TRACKING & ANALYTICS
BOOK RIDES
TRACKING
PAYMENT MINUS COMMISSION
TRACKING & ANALYTICS
BOOK SHIPMENT
ORDER & DELIVERY SYSTEM
RESTAURANTS
UBER EATS
CARRIER
GLOBAL ORDER & DELIVERY SYSTEM
SHIPPER
UBER FREIGHT
FAST EFFECTIVE TRAVEL
UBER AIR

3 minutes application

1 second approval

0 manual labour



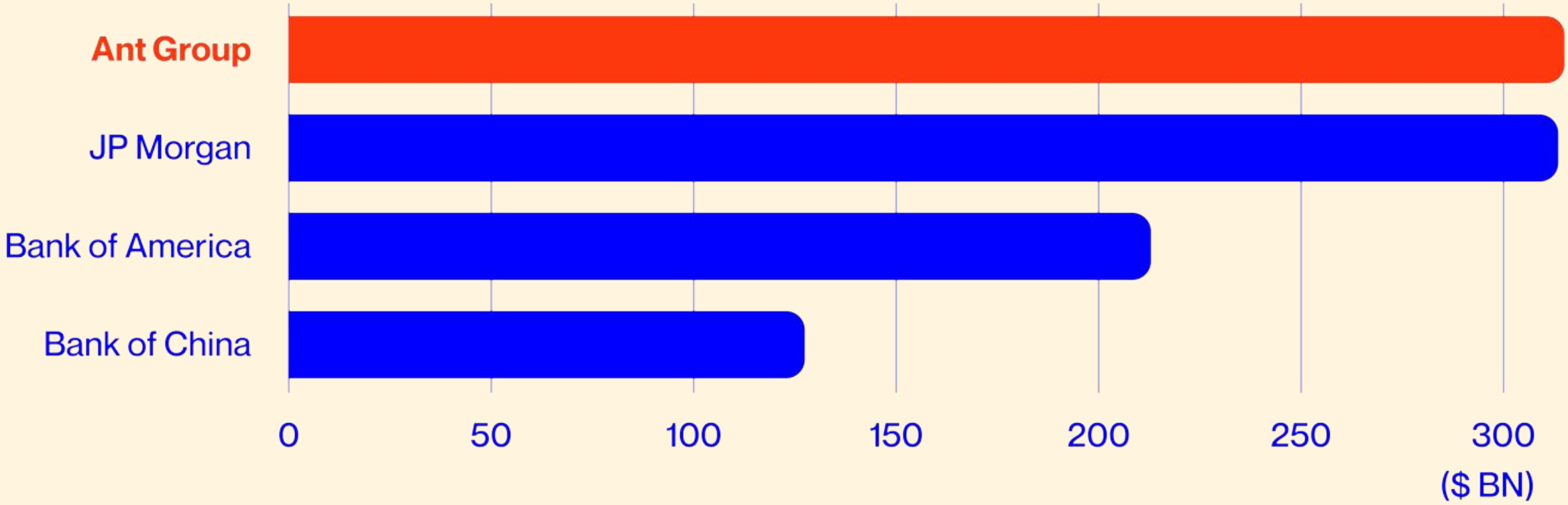
ANT FINANCIAL

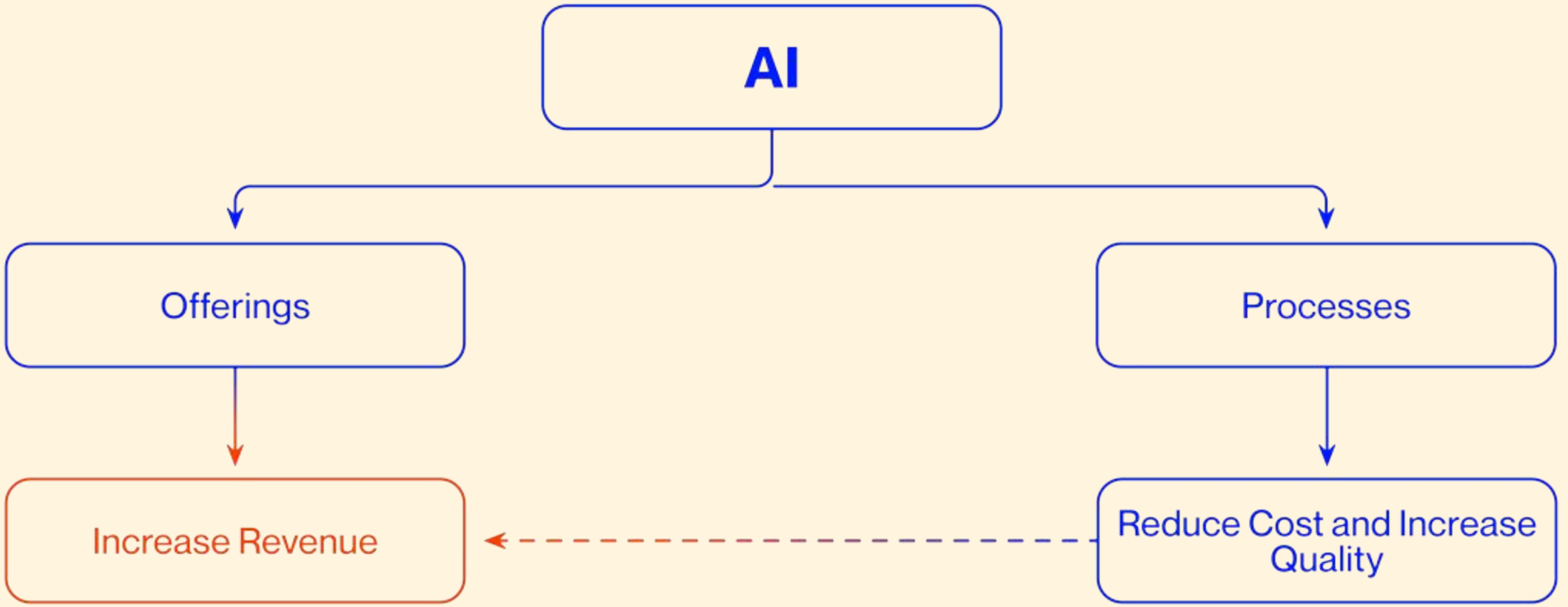
256.000
transactions/second processed*

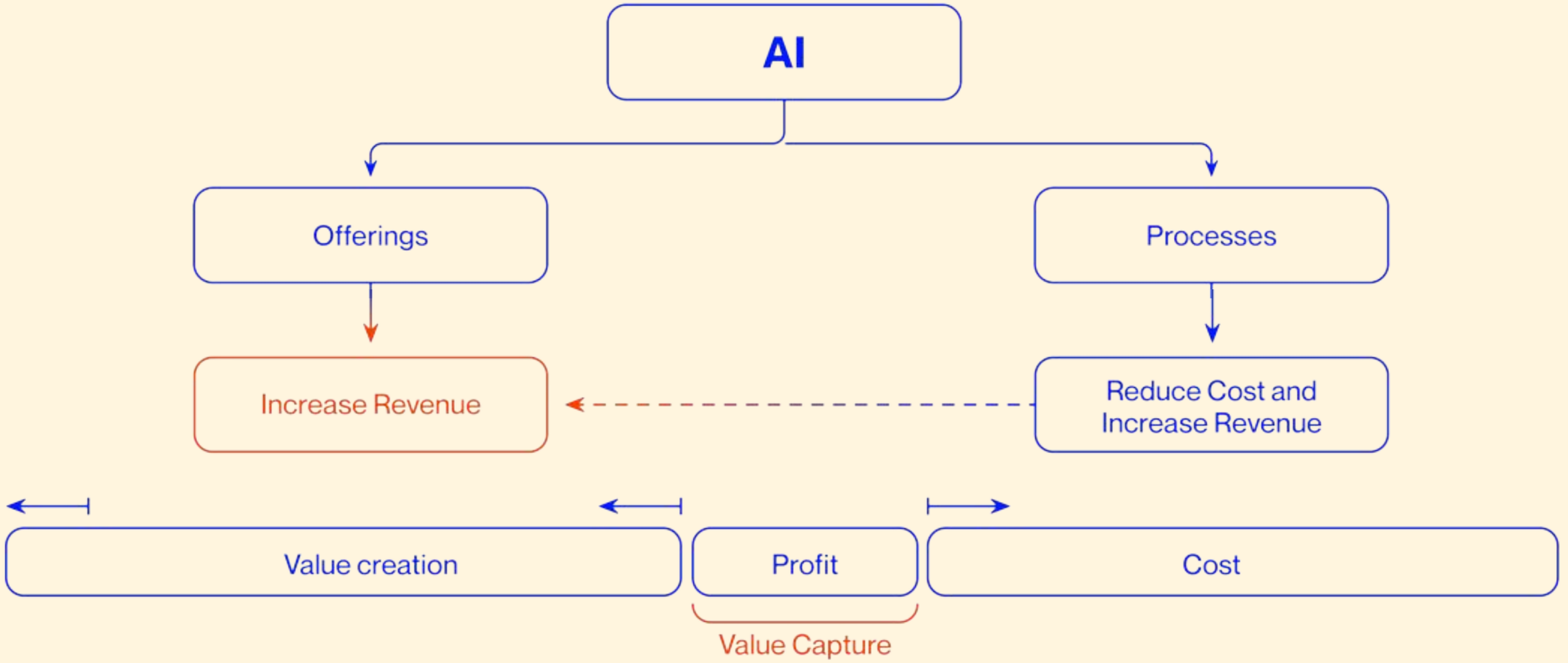
0,01
basis points fraud loss rate*

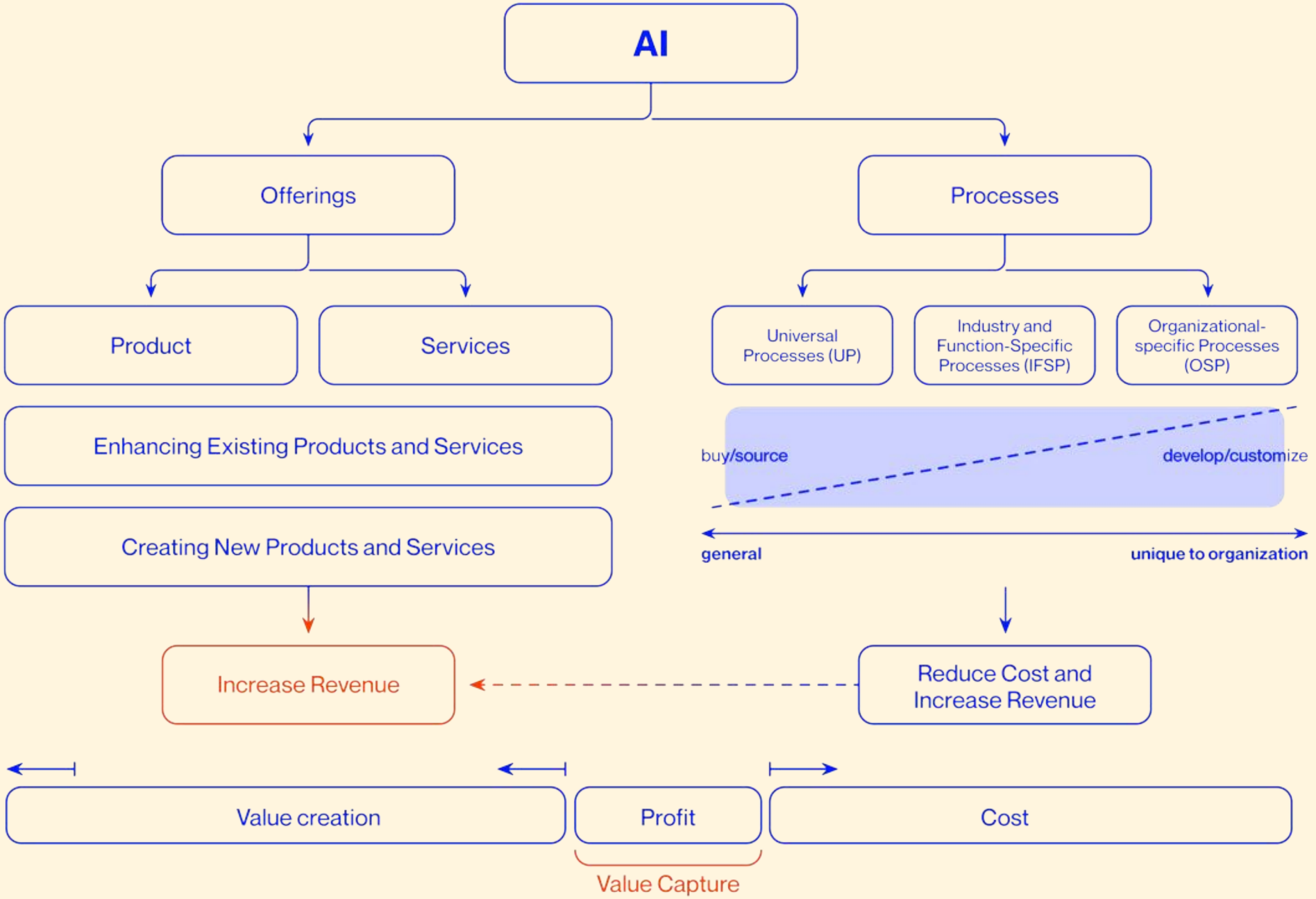
*2018

The Value of Ant Financial



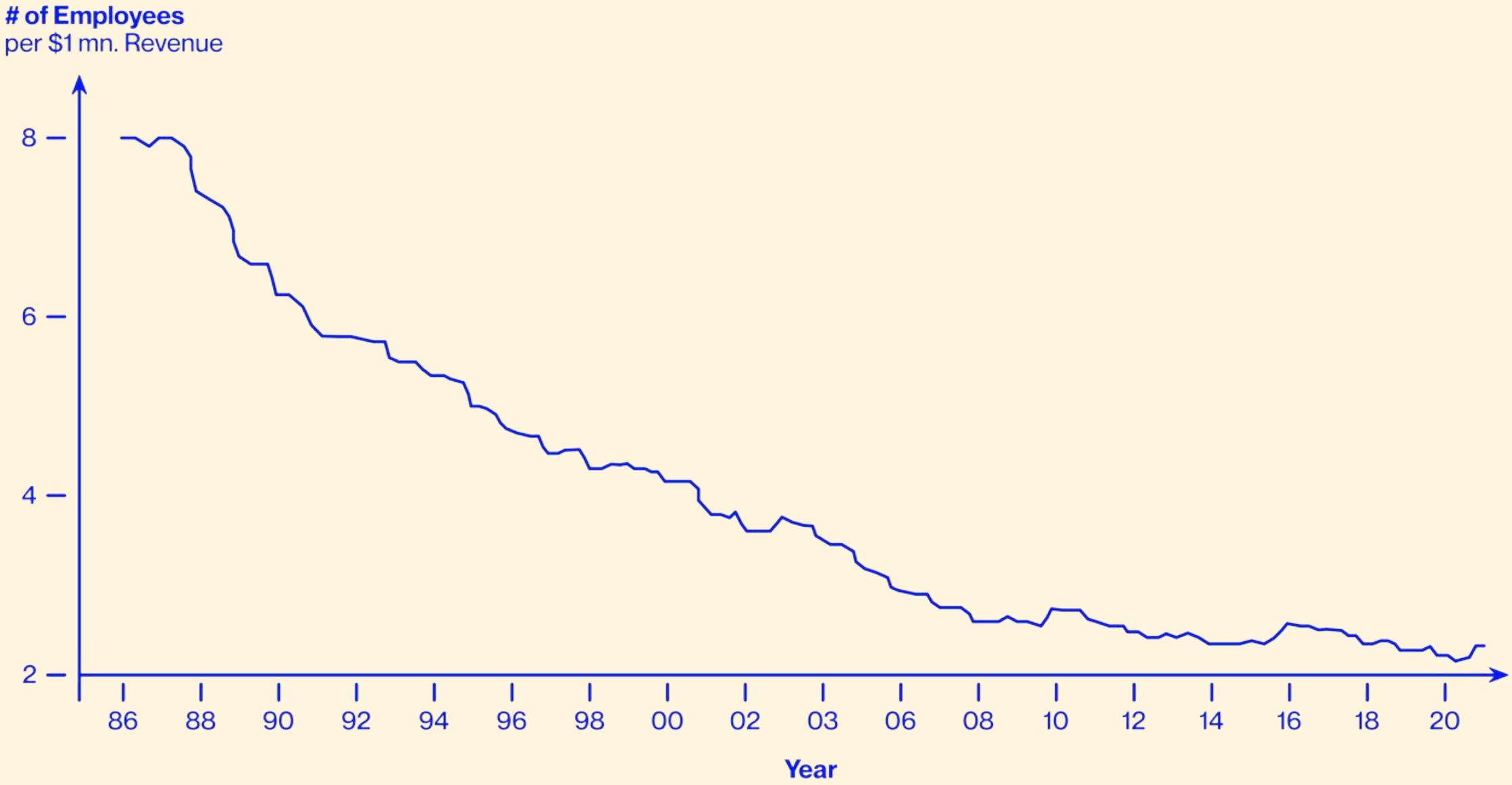

AI
Offerings
Processes
Increase Revenue
Reduce Cost and Increase Quality


AI
Offerings
Processes
Increase Revenue
Reduce Cost and
Increase Revenue
Value creation
Profit
Cost
Value Capture


AI
Offerings
Processes
Product
Services
Universal Processes (UP)
Industry and Function-Specific Processes (IFSP)
Organizational-specific Processes (OSP)
Enhancing Existing Products and Services
buy/source
develop/customize
Creating New Products and Services
general
unique to organization
Increase Revenue
Reduce Cost and Increase Revenue
Value creation
Profit
Cost
Value Capture


xpand

S&P 500 is 70% less labor intensive than it was in the 80s



Harvard Business Review

Business And Society

AI Won't Replace Humans — But Humans With AI Will Replace Humans Without AI

August 04, 2023

AI Maturity

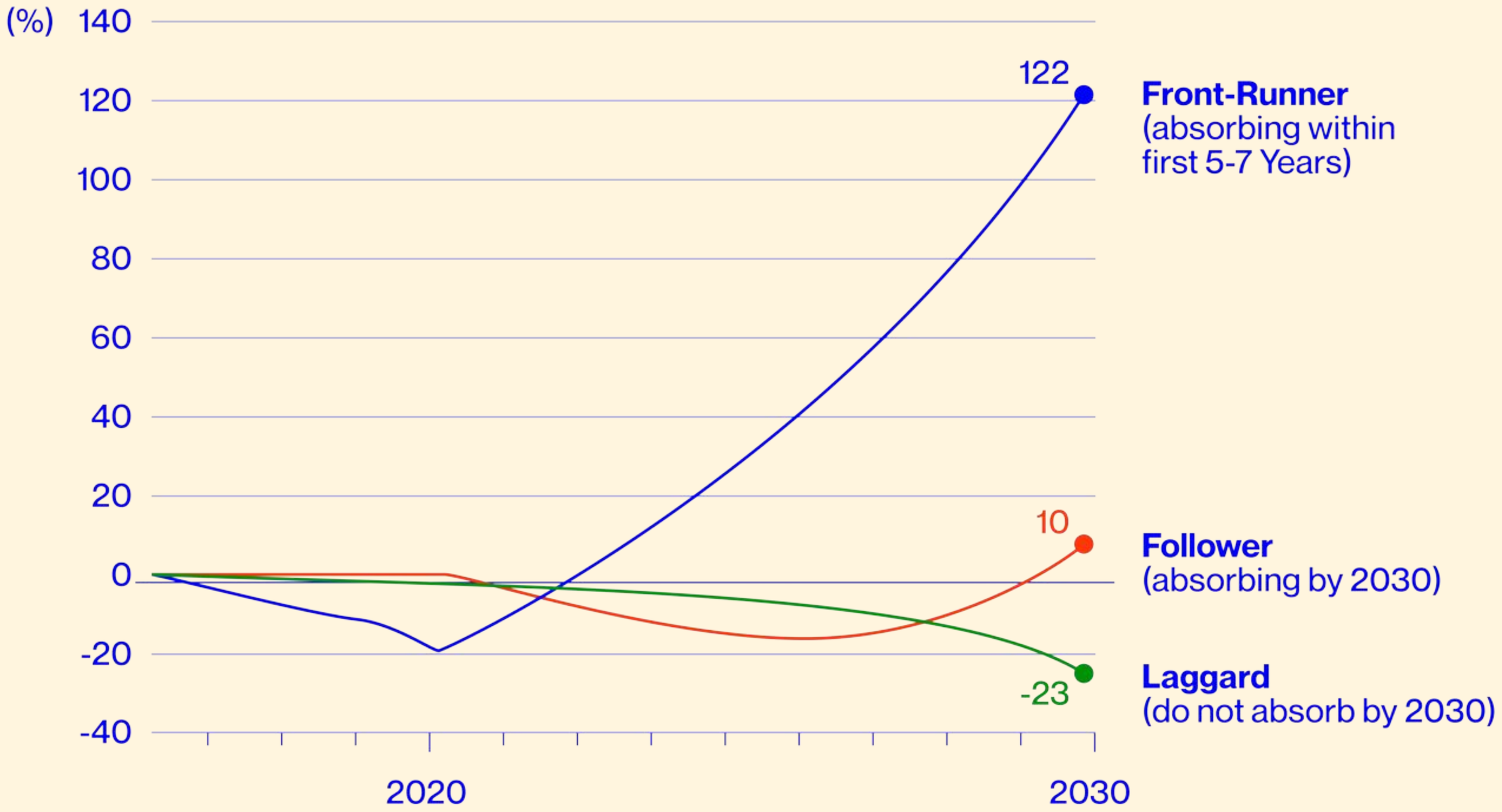
VENTURE BEAT

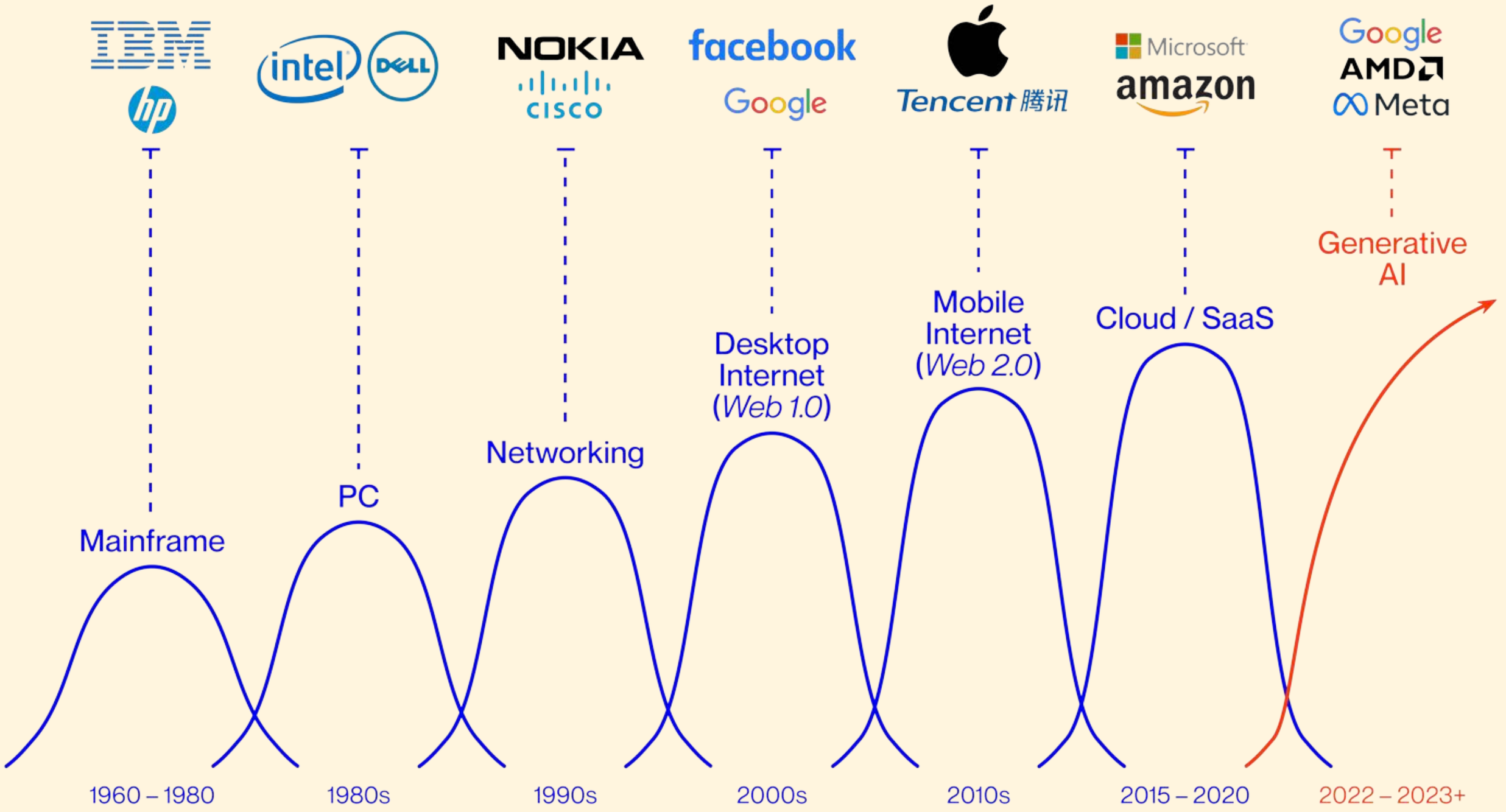
APRIL 20 2021

ONLY 6% OF COMPANIES HAVE ADOPTED AI, STUDY FINDS

A new survey by Juniper Networks finds that while executives understand the value of AI, adobtion remains a struggle.

In a new survey of over 700 C-suite executives and IT


(%)
140
120
100
80
60
40
20
0
-20
-40
122
10
-23
2020
2030
Front-Runner
(absorbing within
first 5-7 Years)
Follower
(absorbing by 2030)
Laggard
(do not absorb by 2030)


IBM
hp
intel
DELL
NOKIA
cisco
facebook
Google
Tencent 腾讯
Microsoft
amazon
Google
AMD
Meta
Mainframe
PC
Networking
Desktop Internet (Web 1.0)
Mobile Internet (Web 2.0)
Cloud / SaaS
Generative AI
1960 – 1980
1980s
1990s
2000s
2010s
2015 – 2020
2022 – 2023+

MIT Sloan Management Review OCTOBER 15TH 2019

WINNING WITH AI

Pioneers Combine Strategy, Organizational Behavior and Technology.

[...]

Seven out of 10 Companies surveyed report **minimal or no impact from AI so far.**

Among the 90% of companies that have made at least some investment in AI, **fewer than 2 out of 5 report obtaining any business gains** from AI in the past three years.

This number improves to 3 out of 5 when we include companies that have made significant investments in AI.

Even so, this means 40% of organizations making significant investments in AI **do not report business gains from AI.**

The crux is that while some companies have clearly figured out how to be successful, most companies have a hard time generating value with AI.

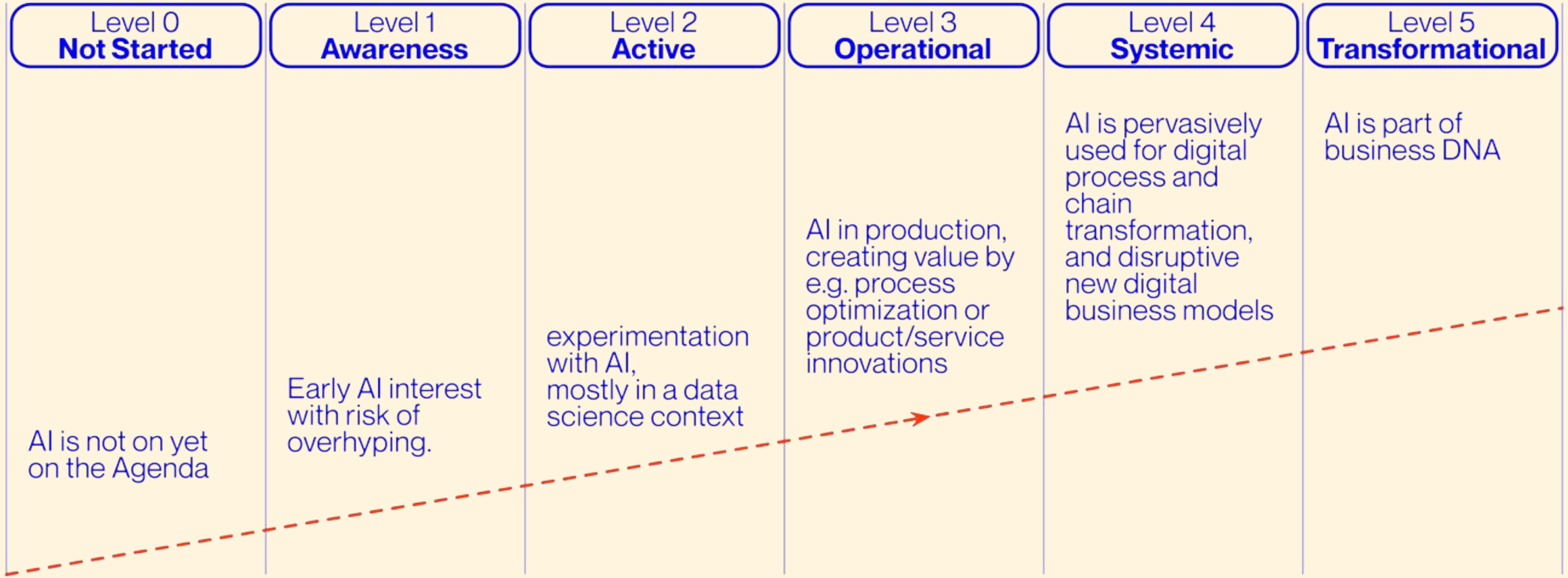

Source: Google I/O

AI First

AI First puts AI in the center of organisations business and operating model.

AI First allows organizations to automate decision-making and in doing so transforming the way to capture value and increase their competitive advantage

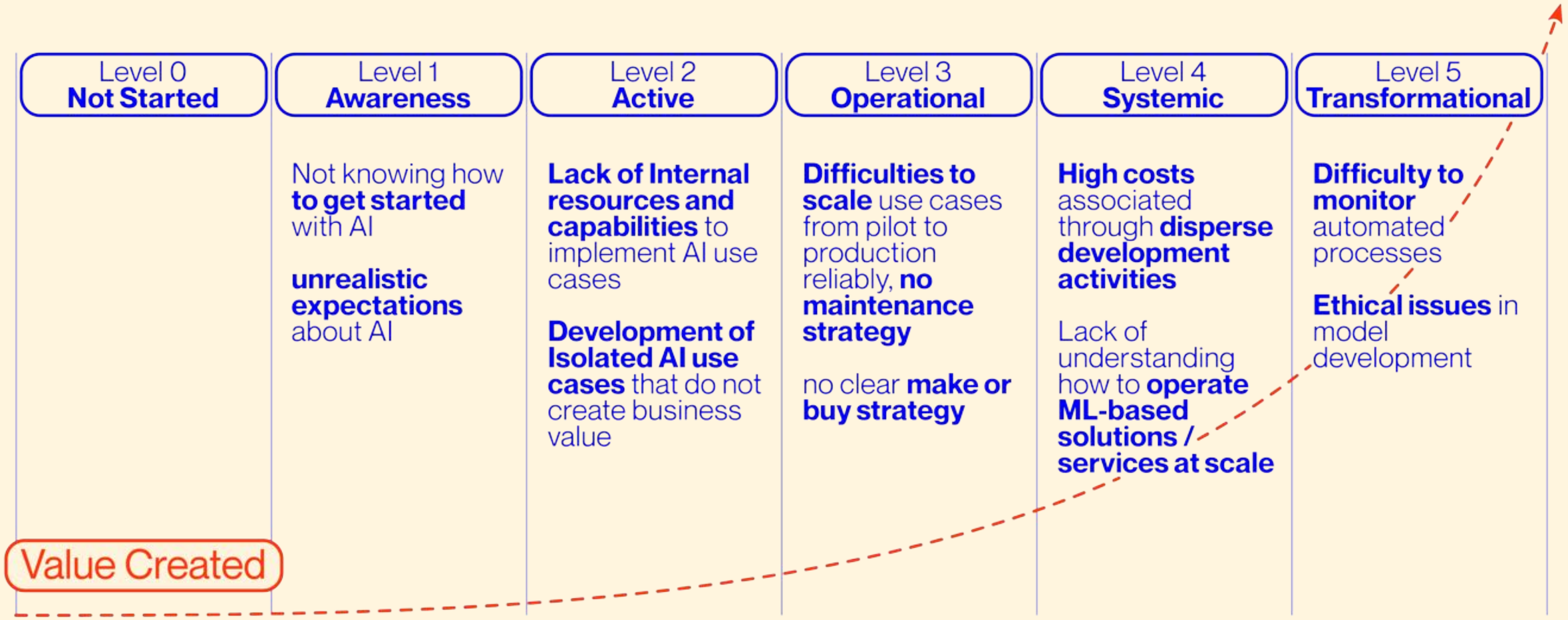
AI Maturity Model



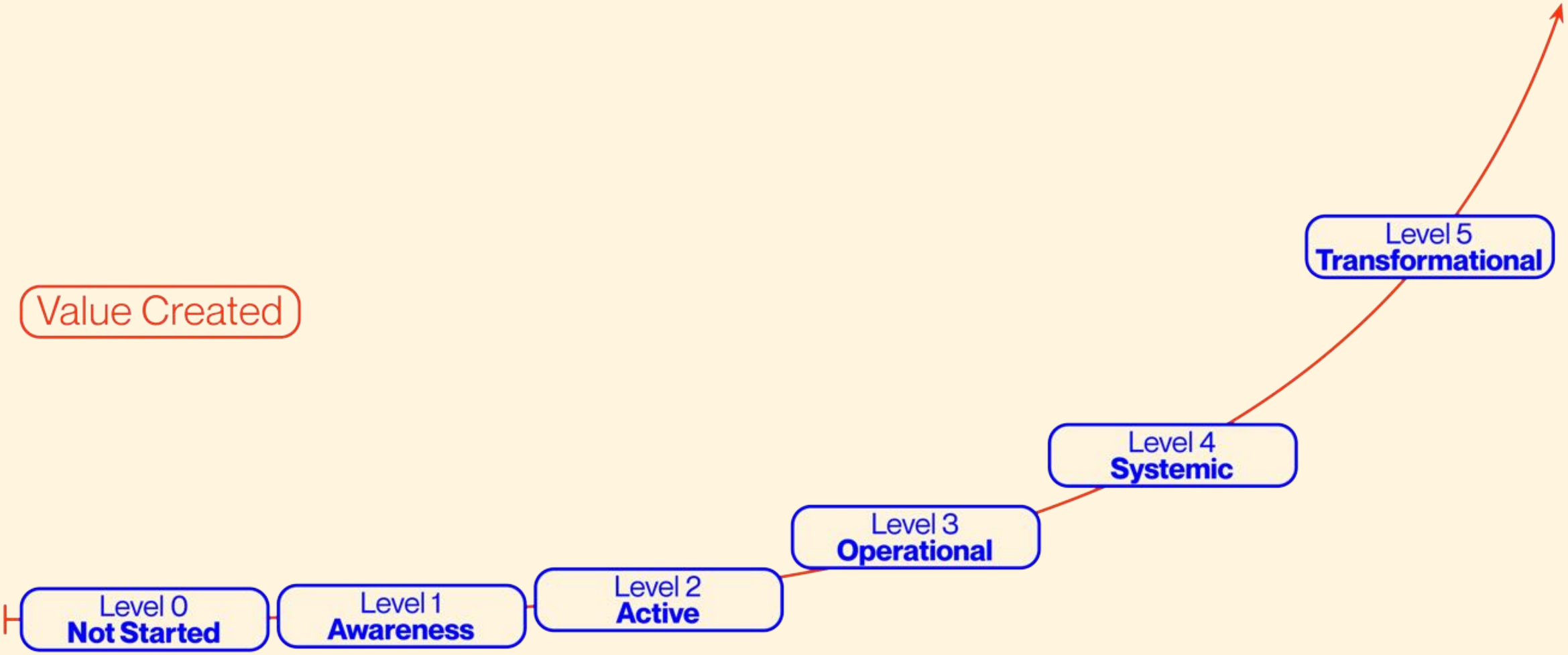
The Challenges of Each Stage

Level 0 **Not Started**	Level 1 **Awareness**	Level 2 **Active**	Level 3 **Operational**	Level 4 **Systemic**	Level 5 **Transformational**
	Not knowing how **to get started** with AI **unrealistic expectations** about AI	**Lack of Internal resources and capabilities** to implement AI use cases **Development of Isolated AI use cases** that do not create business value	**Difficulties to scale** use cases from pilot to production reliably, **no maintenance strategy** no clear **make or buy strategy**	**High costs** associated through **disperse development activities** Lack of understanding how to **operate ML-based solutions / services at scale**	**Difficulty to monitor** automated processes **Ethical issues** in model development

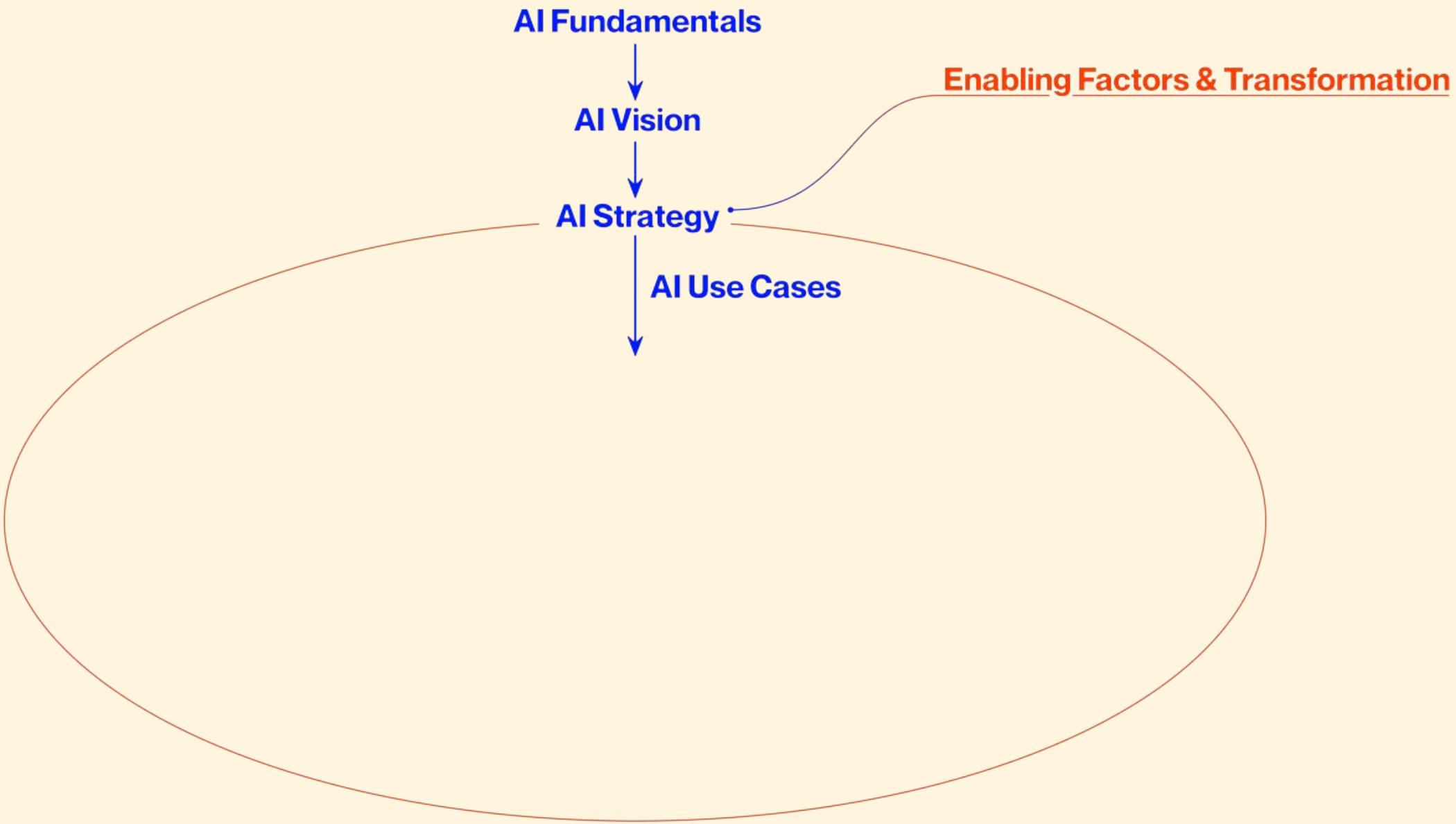
The Challenges of Each Stage

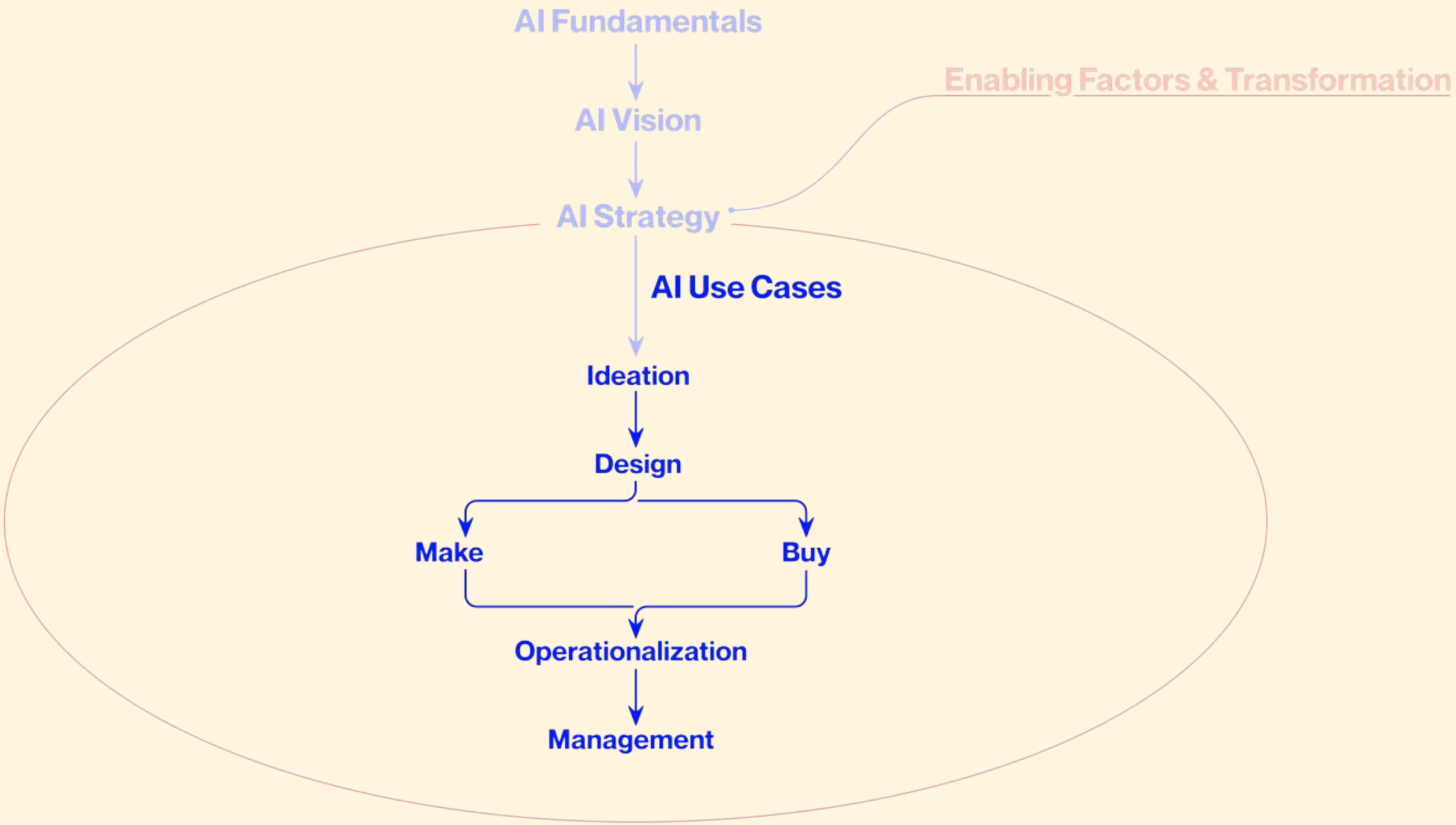


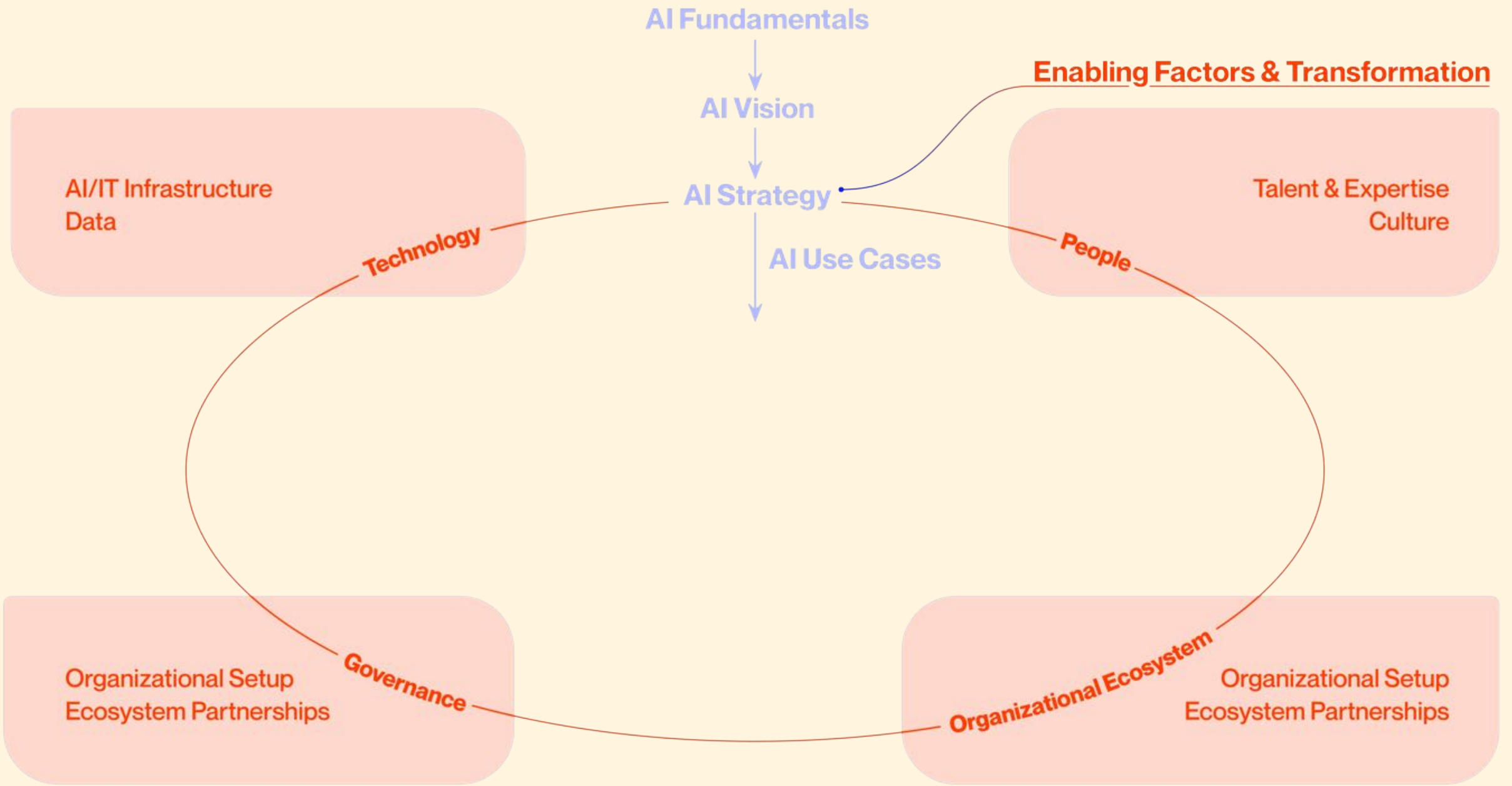
Maturity and Value

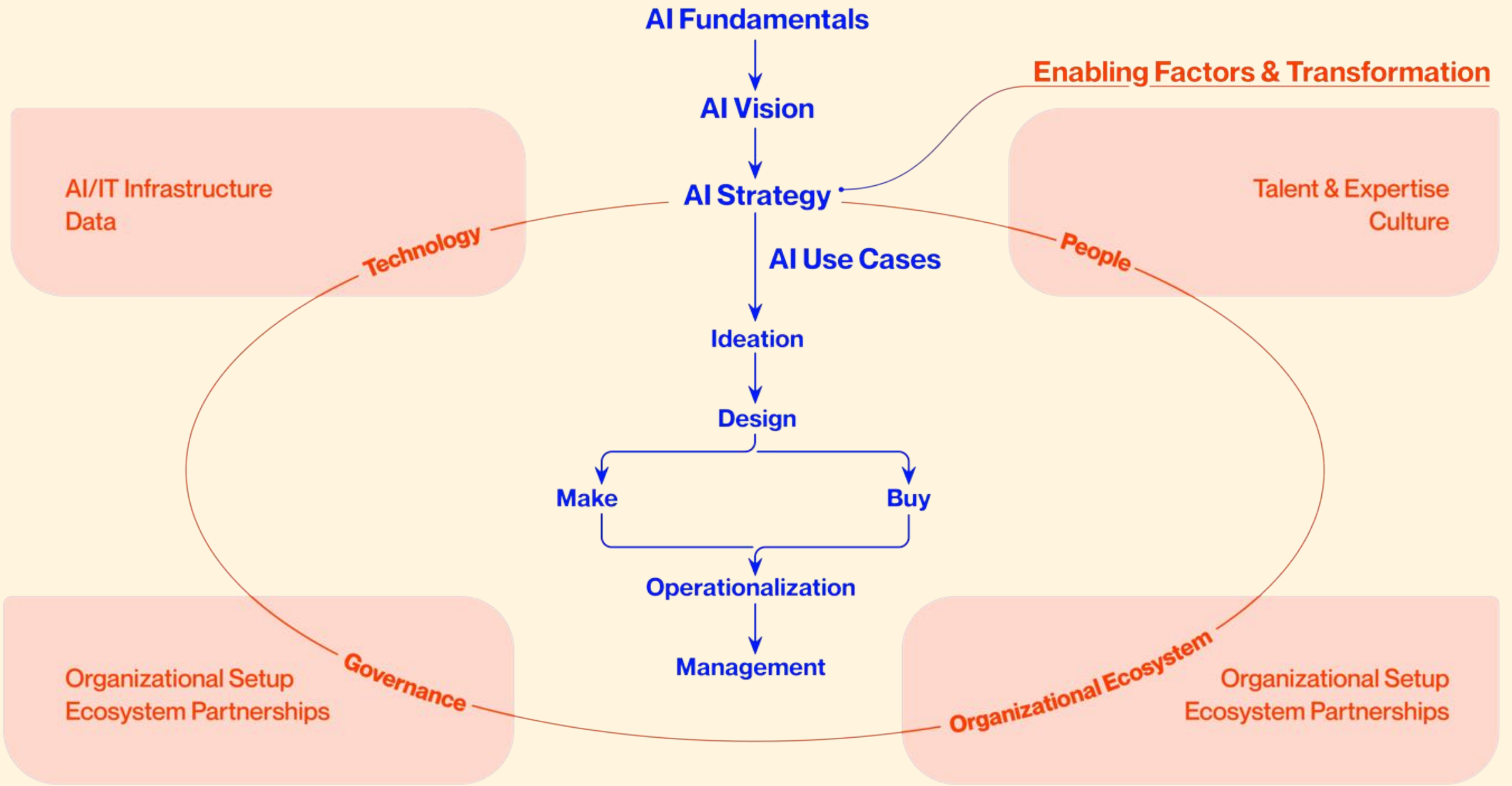


AI Strategy


AI Fundamentals
AI Vision
AI Strategy
AI Use Cases
Enabling Factors & Transformation


AI Fundamentals
AI Vision
AI Strategy
Enabling Factors & Transformation
AI Use Cases
Ideation
Design
Make
Buy
Operationalization
Management


AI Fundamentals
AI Vision
AI Strategy
AI Use Cases
Enabling Factors & Transformation
AI/IT Infrastructure
Data
Technology
Talent & Expertise
Culture
People
Organizational Setup
Ecosystem Partnerships
Governance
Organizational Ecosystem
Organizational Setup
Ecosystem Partnerships


AI Fundamentals
AI Vision
AI Strategy
AI Use Cases
Ideation
Design
Make
Buy
Operationalization
Management
Enabling Factors & Transformation
AI/IT Infrastructure
Data
Talent & Expertise
Culture
Technology
People
Governance
Organizational Ecosystem
Organizational Setup
Ecosystem Partnerships
Organizational Setup
Ecosystem Partnerships

Grundlagen der KI und Aufbau einer strategischen Vision

10:00 Uhr - 10:45 Uhr - **Einleitungsrunde | Format: Interaktive Gruppenarbeit**

- Teilnehmer stellen sich vor und präsentieren einen aktuellen oder geplanten KI-Use Case.

10:45 Uhr - 11:20 Uhr - **KI-Strategie: Organisationen Befähigen | Format: Impulsvortrag**

- Über die transformative Rolle von KI in Organisationen mit Schwerpunkt auf strategischer Integration.

11:20 Uhr - 12:15 Uhr - **Visionserstellung für KI | Format: Interaktive Gruppenarbeit**

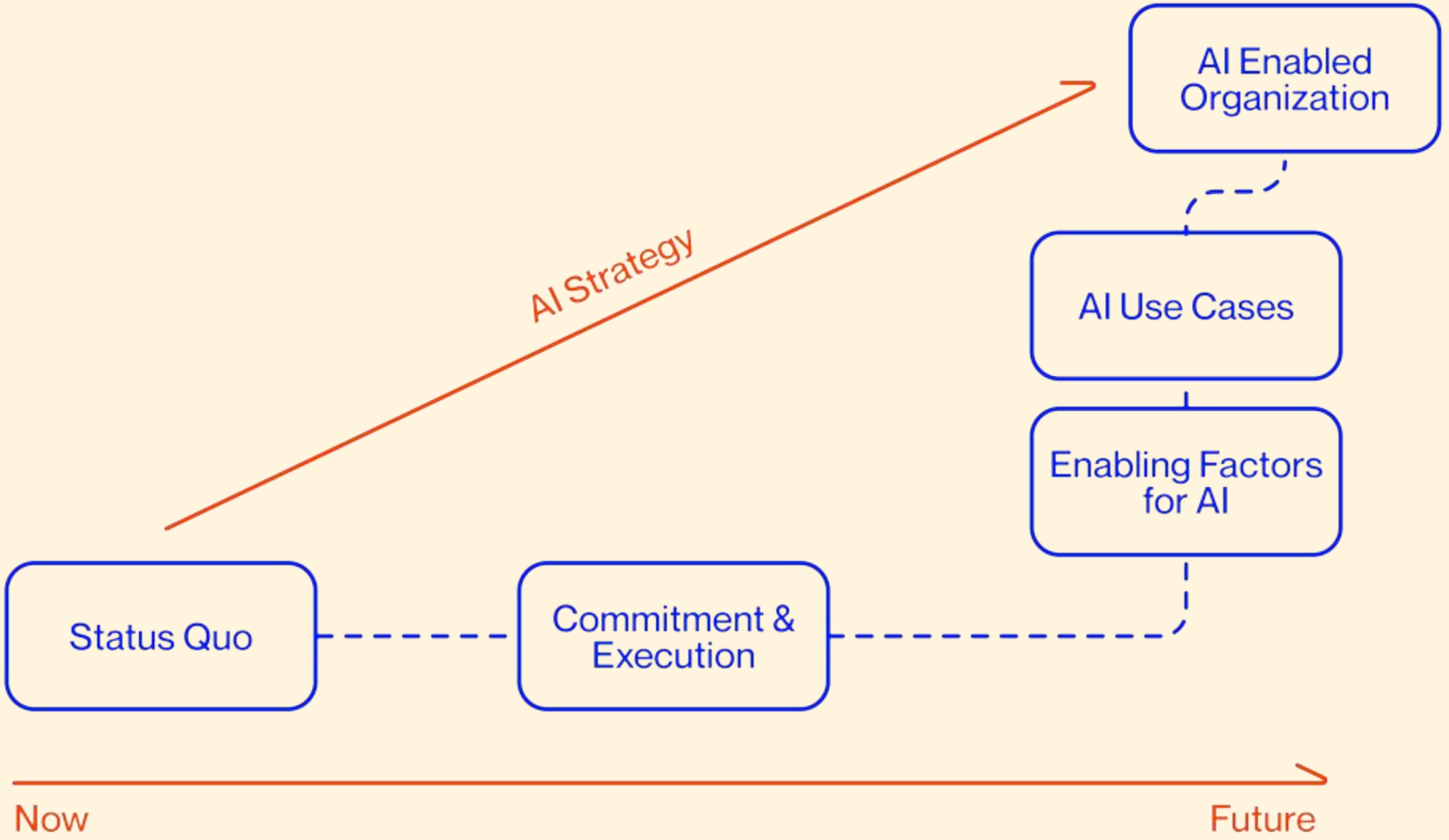
- Teilnehmer erarbeiten im Workshop-Setting die KI-Vision für ihre Organisation, unterstützt durch direktes Peer-Feedback.

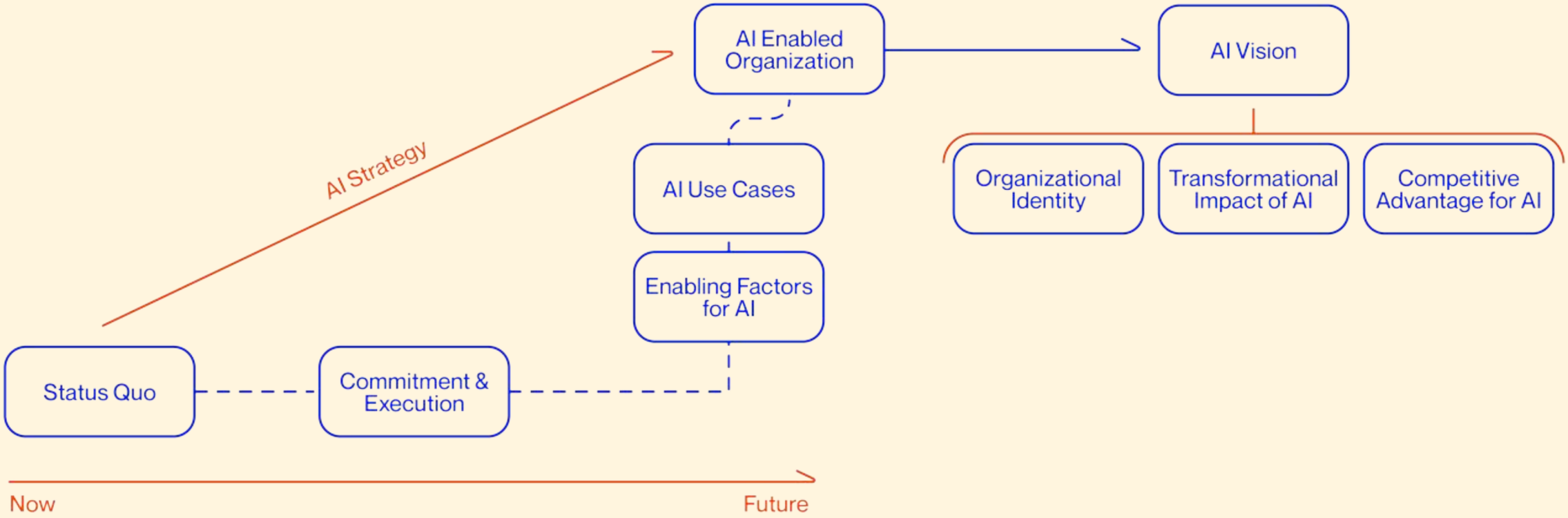
12:15 Uhr - 12:30 Uhr - **Gruppenpräsentation und Reflexion | Format: Kollaboratives Gruppenfeedback**

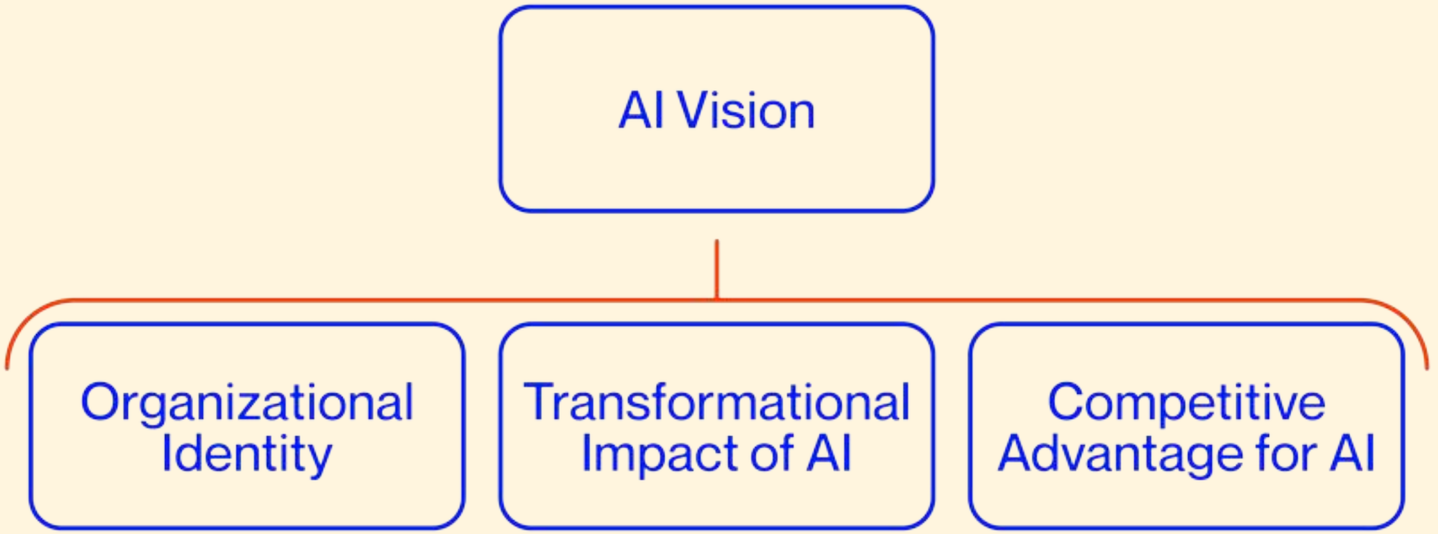
- Präsentation der KI-Visionen und interaktives Feedback der Gruppe zur Machbarkeit und zu den Herausforderungen der Umsetzung davon.

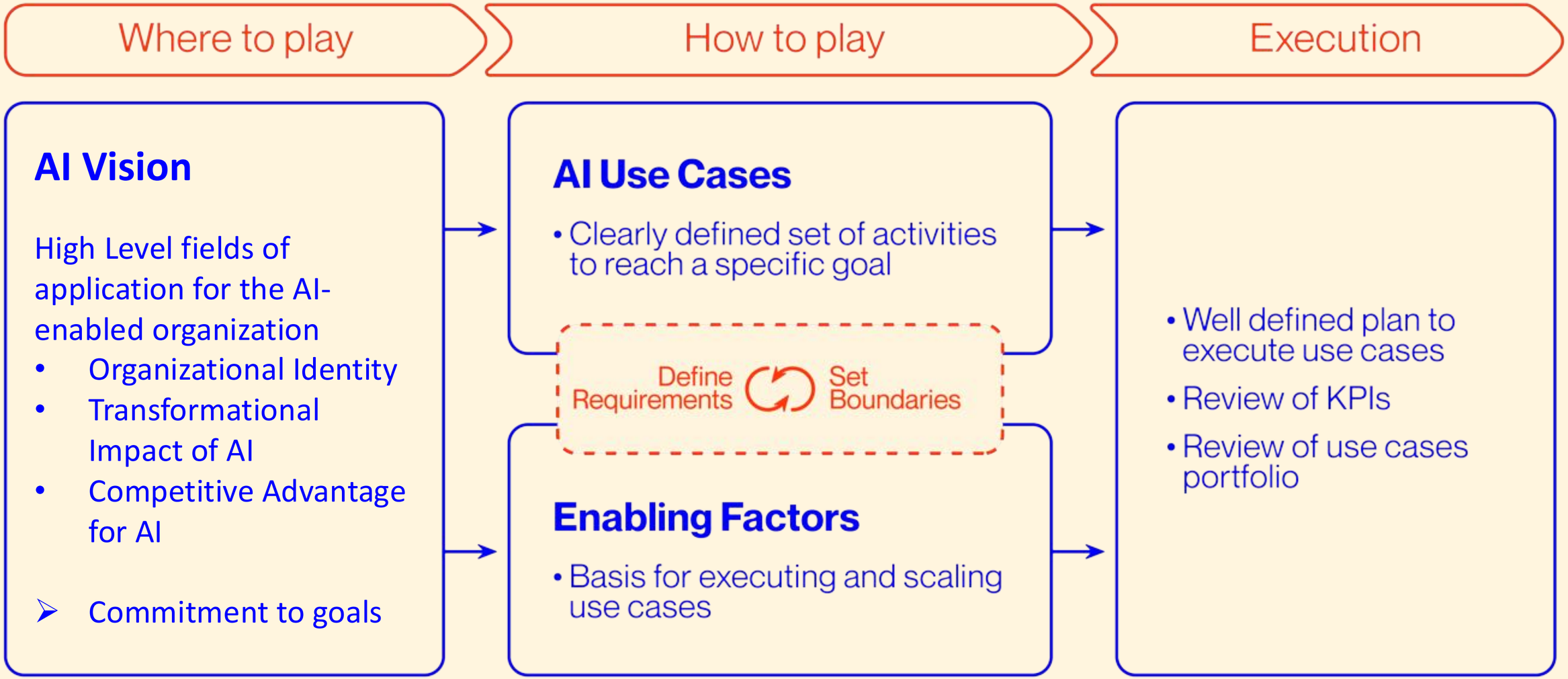
CIONET

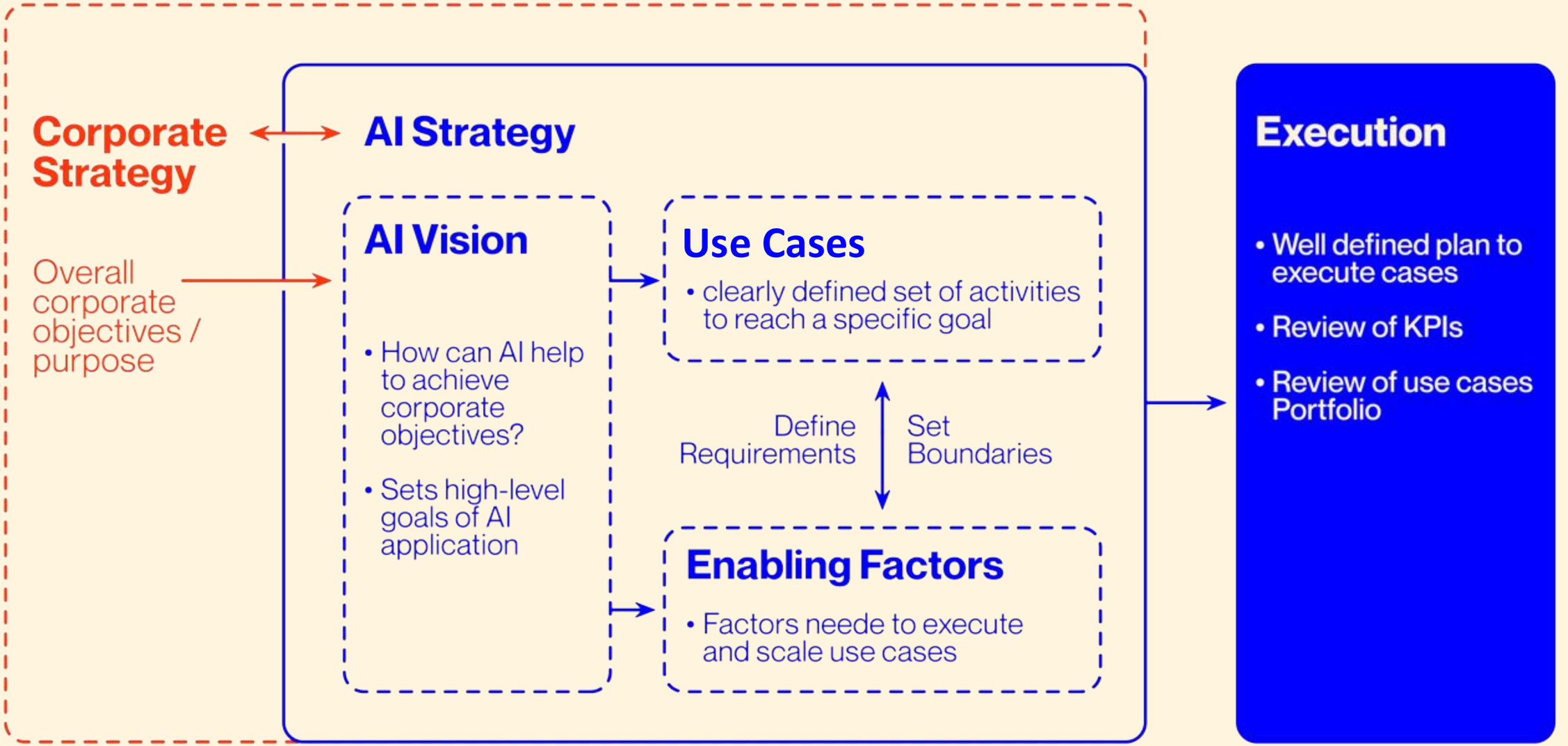
AI Vision


AI Enabled Organization
AI Use Cases
Enabling Factors for AI
AI Strategy
Status Quo
Commitment & Execution
Now
Future

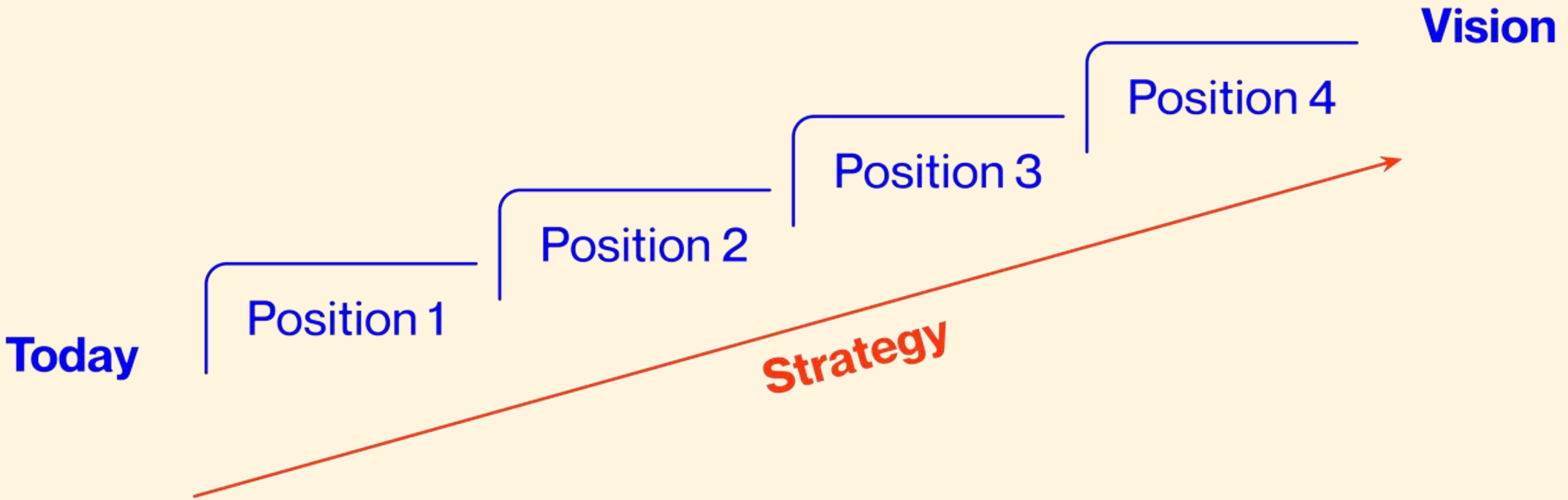

AI Enabled Organization
AI Vision
AI Strategy
AI Use Cases
Organizational Identity
Transformational Impact of AI
Competitive Advantage for AI
Enabling Factors for AI
Status Quo
Commitment & Execution
Now
Future

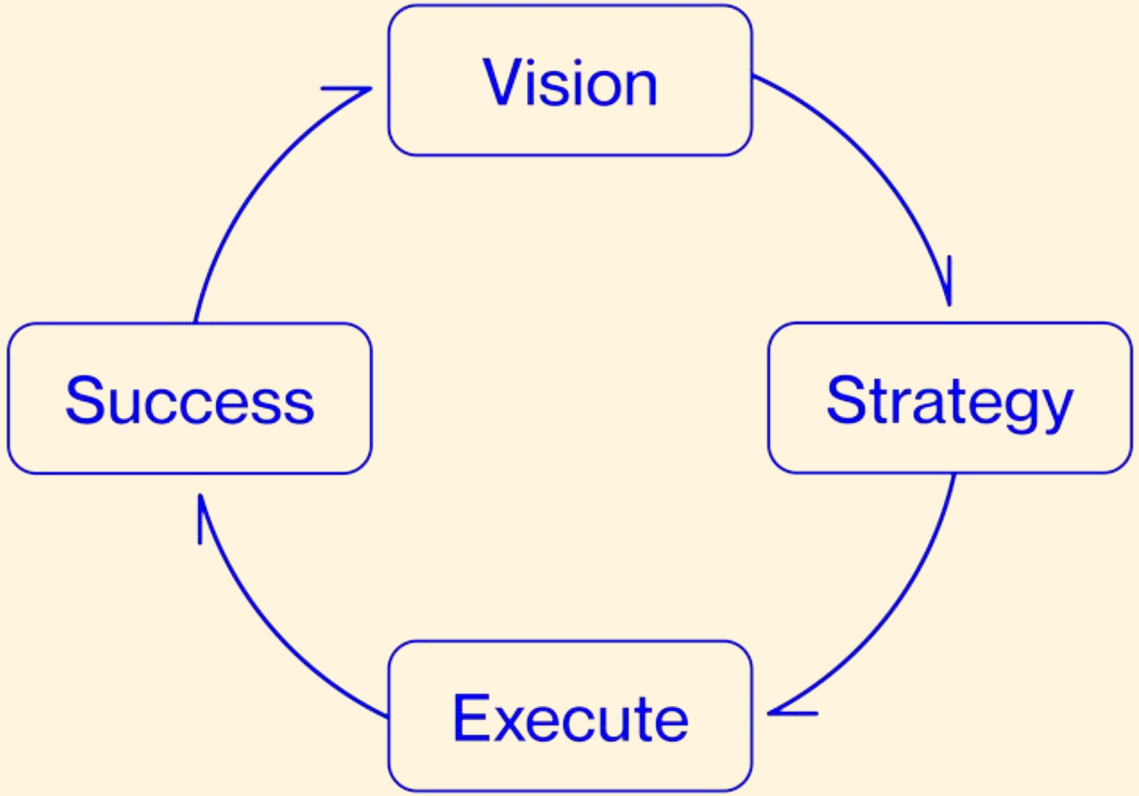

AI Vision
Organizational Identity
Transformational Impact of AI
Competitive Advantage for AI


Where to play
How to play
Execution
AI Vision
High Level fields of application for the AI-enabled organization
• Organizational Identity
• Transformational Impact of AI
• Competitive Advantage for AI
➢ Commitment to goals
AI Use Cases
• Clearly defined set of activities to reach a specific goal
Define Requirements
Set Boundaries
Enabling Factors
• Basis for executing and scaling use cases
• Well defined plan to execute use cases
• Review of KPIs
• Review of use cases portfolio


Corporate Strategy
AI Strategy
Overall corporate objectives / purpose
AI Vision
• How can AI help to achieve corporate objectives?
• Sets high-level goals of AI application
Use Cases
• clearly defined set of activities to reach a specific goal
Define Requirements
Set Boundaries
Enabling Factors
• Factors neede to execute and scale use cases
Execution
• Well defined plan to execute cases
• Review of KPIs
• Review of use cases Portfolio


Aspirational
Achievable
Specific &
Tangible
Values
Vision
Mission
Strategic objectives
Actions & KPI's
What do we stand for?
Ethics, principles, beliefs
Where are we going?
What do we aspire to achieve?
Hope, Ambition
What do we do?
Who do we do it for?
Motivation, Purpose
How are we going to progress?
Plan, Goals, Sequencing
What do we have to do?
How do we know?
Ethics, principles, beliefs


Vision
Position 4
Position 3
Position 2
Position 1
Today
Strategy


Vision
Strategy
Execute
Success

Your Company

Ambition and Positioning:

- What is our ambition with AI? Do we aim to be a market leader, an industry frontrunner, or simply ensure we don’t fall behind?
- What is our organization's risk appetite regarding adopting emerging AI technologies? How much risk are we willing to take?

Assessment of Current State:

- Where does our company currently stand in terms of AI adoption, and how can AI help us achieve our long-term business goals?
- What is our current competitive advantage, and why do we make money today?
- What products or services are our primary revenue drivers, and how could AI enhance or transform them?
- What are the most significant challenges in integrating AI into our existing operations, and how can we address them?

Customers and Market

Customer Expectations:

- How are customer needs evolving in a world increasingly shaped by AI?
- What AI-powered experiences do our customers expect, and how can we exceed these expectations?

Industry and Competitor Analysis:

- How do competitors in our industry use AI, and what can we learn from their strategies?
- How might AI impact our industry's business models, products, and processes in the next few years?
- What regulatory changes, such as the AI Act, could impact how we implement AI in our products or services?

Technology

Technology Landscape:

- What are the most relevant AI technologies and capabilities for our business today, and how might these evolve over the next few years?
- How can AI technologies help us unlock new value drivers and strengthen our competitive advantage?
- How do we anticipate the evolution of AI, and what risks or opportunities could arise if we adopt AI too early or too late?

Exploitation and Differentiation:

- How can we exploit value drivers enabled by AI?
- How can we differentiate our use of AI from the industry average and aim for best-in-class solutions?

Vision Statement

Using the insights from above, write a short and impactful vision statement. It should be no more than 2-3 sentences and should include:

- Aspirational Language that reflects your ambition.
- Alignment with Business Goals, showing how AI will directly enhance your company's ability to create value.
- Focus on Action, signaling your commitment to integrating AI into your products, services, and processes.

Example of an AI Vision: *"We aim to become the leading AI-driven organization in our industry by leveraging advanced AI technologies to transform customer experiences, streamline our operations, and deliver innovative products that redefine our market. Through strategic investments and a focus on continuous learning, we will ensure that AI becomes a core enabler of our long-term success."*

Commitment (Execution)

Action and Resource Allocation:

- How can we set clear AI-related objectives that align with our vision and measure progress with the right metrics?
- How should we allocate resources (budget, talent, and technology) to achieve our AI goals?
- How do we ensure that AI initiatives gain acceptance and spread throughout the organization, creating awareness at all levels?
- What processes do we need to establish to ensure ongoing commitment to our AI strategy?

Grundlagen der KI und Aufbau einer strategischen Vision

10:00 Uhr - 10:45 Uhr - **Einleitungsrunde | Format: Interaktive Gruppenarbeit**

- Teilnehmer stellen sich vor und präsentieren einen aktuellen oder geplanten KI-Use Case.

10:45 Uhr - 11:20 Uhr - **KI-Strategie: Organisationen Befähigen | Format: Impulsvortrag**

- Über die transformative Rolle von KI in Organisationen mit Schwerpunkt auf strategischer Integration.

11:20 Uhr - 12:15 Uhr - **Visionserstellung für KI | Format: Interaktive Gruppenarbeit**

- Teilnehmer erarbeiten im Workshop-Setting die KI-Vision für ihre Organisation, unterstützt durch direktes Peer-Feedback.

12:15 Uhr - 12:30 Uhr - **Gruppenpräsentation und Reflexion | Format: Kollaboratives Gruppenfeedback**

- Präsentation der KI-Visionen und interaktives Feedback der Gruppe zur Machbarkeit und zu den Herausforderungen der Umsetzung davon.

CIONET

Vision Presentation

Separate in to two groups or plenum:

- *Each person has 60 seconds to share their vision*
- *60 seconds feedback*

12:30 Uhr - 13:30 Uhr - Mittagspause

13:30 Uhr - 14:00 Uhr - **KI-zentrierte Kultur | Vortrag + Gruppenarbeit**

- "Wie gelingt die Integration einer KI-Kultur in die bestehende Unternehmenskultur", gefolgt von einer Gruppen-Diskussionen über Vorgehensweisen zum Thema.

14:00 Uhr - 14:30 Uhr - **Strukturen für KI-Initiativen: Aufbau und Verwaltung | Format: Vortrag + Gruppenarbeit**

- "Wie sehen optimale Organisationsstrukturen zur Förderung von KI-Initiativen aus?", gefolgt von einer Gruppen-Diskussionen über Vorgehensweisen zum Thema.

14:30 Uhr - 15:00 Uhr - **AI-Talent & Skills | Format: Strategie-Workshop**

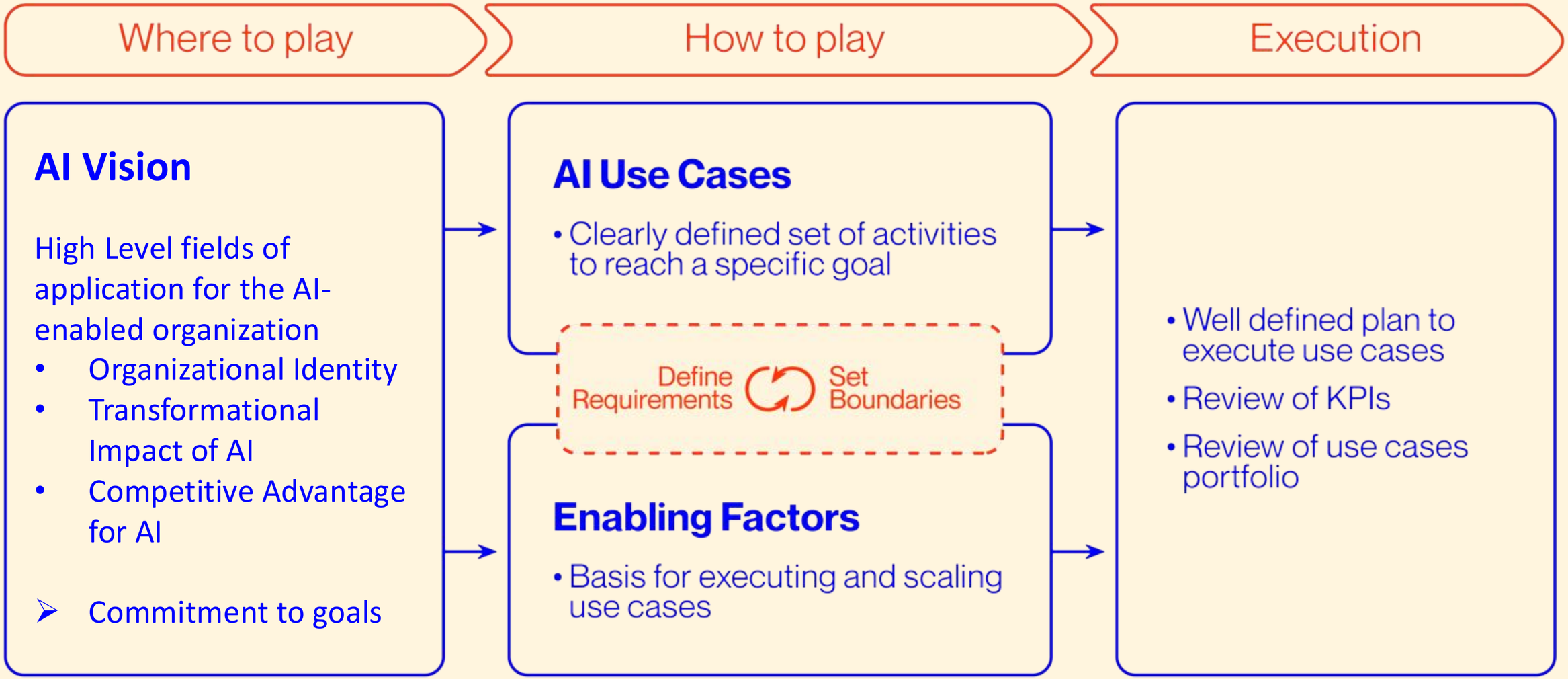
- Interaktiver Workshop, der sich auf die Entwicklung von Strategien zur Talent-Akquise und den Aufbau von KI-Fachkompetenzen konzentriert.

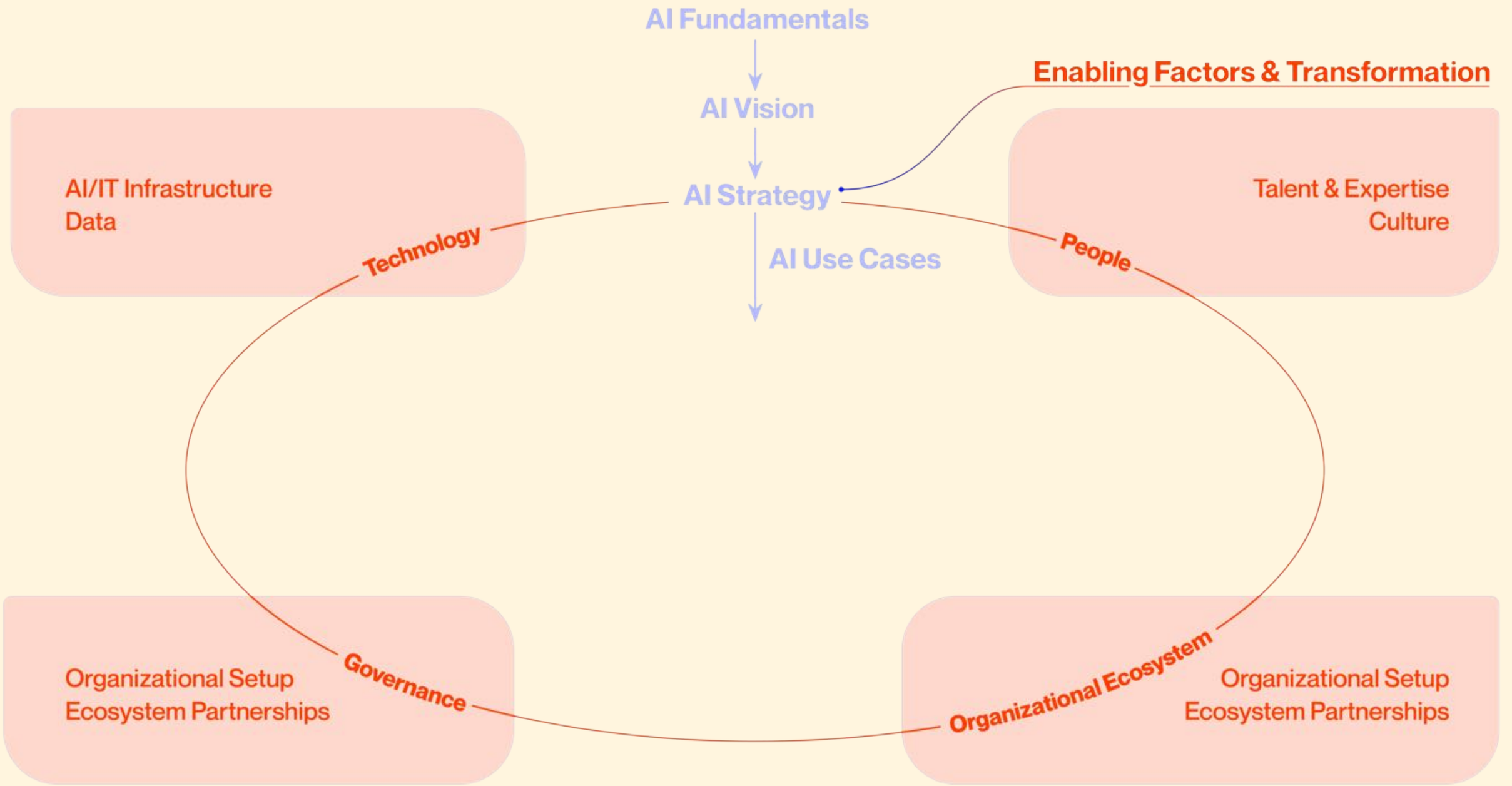
15:00 Uhr - 15:30 Uhr - **Data Strategy und Data Governance | Format: Vortrag + Gruppenarbeit**

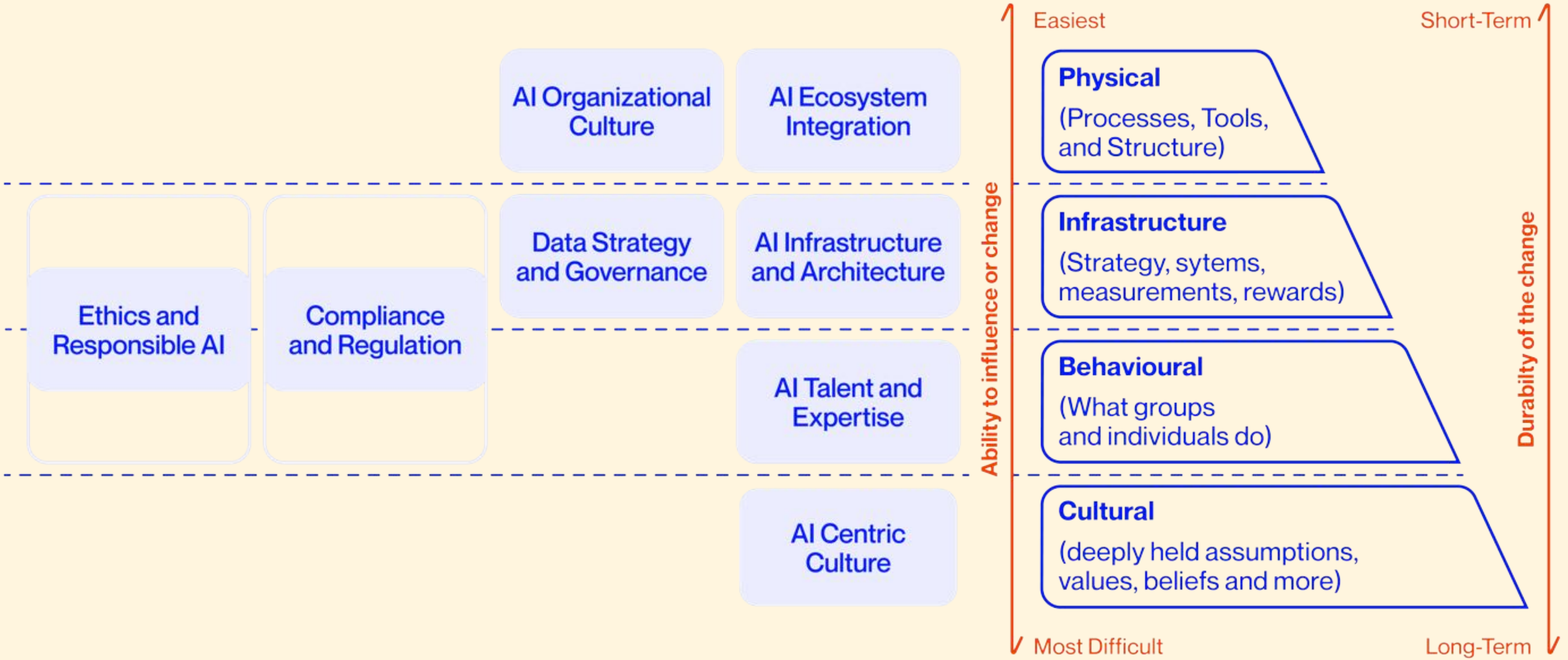
- Impulsvortrag und Diskussion zu bewährten Praktiken im KI-Datenmanagement.

CIONET

AI Enabling Factors


Where to play
How to play
Execution
AI Vision
High Level fields of application for the AI-enabled organization
• Organizational Identity
• Transformational Impact of AI
• Competitive Advantage for AI
➢ Commitment to goals
AI Use Cases
• Clearly defined set of activities to reach a specific goal
Define Requirements
Set Boundaries
Enabling Factors
• Basis for executing and scaling use cases
• Well defined plan to execute use cases
• Review of KPIs
• Review of use cases portfolio


AI Fundamentals
AI Vision
AI Strategy
AI Use Cases
Enabling Factors & Transformation
AI/IT Infrastructure
Data
Technology
Talent & Expertise
Culture
People
Organizational Setup
Ecosystem Partnerships
Governance
Organizational Ecosystem
Organizational Setup
Ecosystem Partnerships


AI Organizational Culture
AI Ecosystem Integration
Data Strategy and Governance
AI Infrastructure and Architecture
Ethics and Responsible AI
Compliance and Regulation
AI Talent and Expertise
AI Centric Culture
Ability to influence or change
Easiest
Most Difficult
Short-Term
Long-Term
Durabilty of the change
Physical
(Processes, Tools, and Structure)
Infrastructure
(Strategy, sytems, measurements, rewards)
Behavioural
(What groups and individuals do)
Cultural
(deeply held assumptions, values, beliefs and more)

AI Enabling Factors

12:30 Uhr - 13:30 Uhr - Mittagspause

13:30 Uhr - 14:00 Uhr - **KI-zentrierte Kultur | Vortrag + Gruppenarbeit**

- "Wie gelingt die Integration einer KI-Kultur in die bestehende Unternehmenskultur", gefolgt von einer Gruppen-Diskussionen über Vorgehensweisen zum Thema.

14:00 Uhr - 14:30 Uhr - **Strukturen für KI-Initiativen: Aufbau und Verwaltung | Format: Vortrag + Gruppenarbeit**

- "Wie sehen optimale Organisationsstrukturen zur Förderung von KI-Initiativen aus?", gefolgt von einer Gruppen-Diskussionen über Vorgehensweisen zum Thema.

14:30 Uhr - 15:00 Uhr - **AI-Talent & Skills | Format: Strategie-Workshop**

- Interaktiver Workshop, der sich auf die Entwicklung von Strategien zur Talent-Akquise und den Aufbau von KI-Fachkompetenzen konzentriert.

15:00 Uhr - 15:30 Uhr - **Data Strategy und Data Governance | Format: Vortrag + Gruppenarbeit**

- Impulsvortrag und Diskussion zu bewährten Praktiken im KI-Datenmanagement.

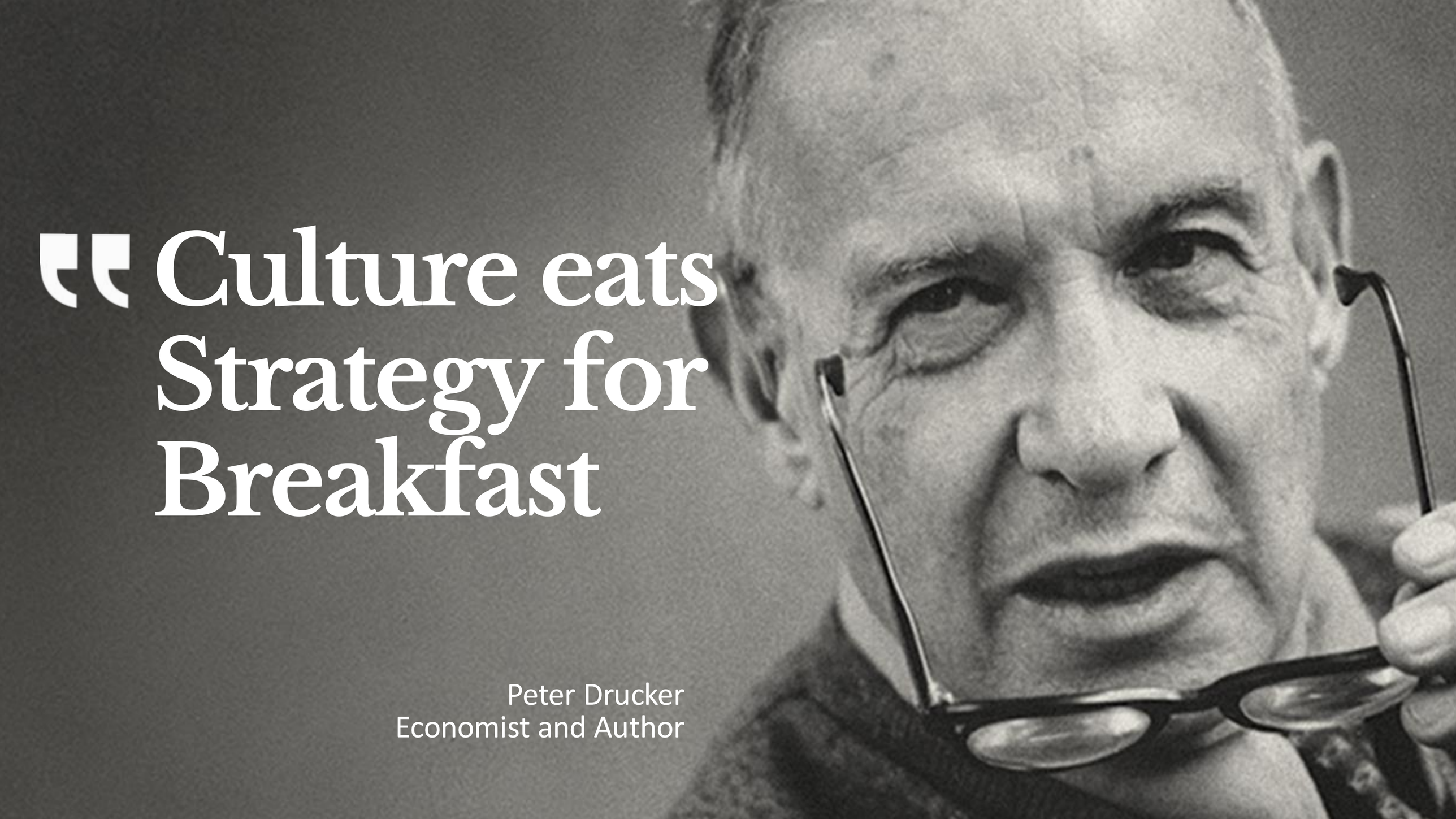
CIONET

People
Culture

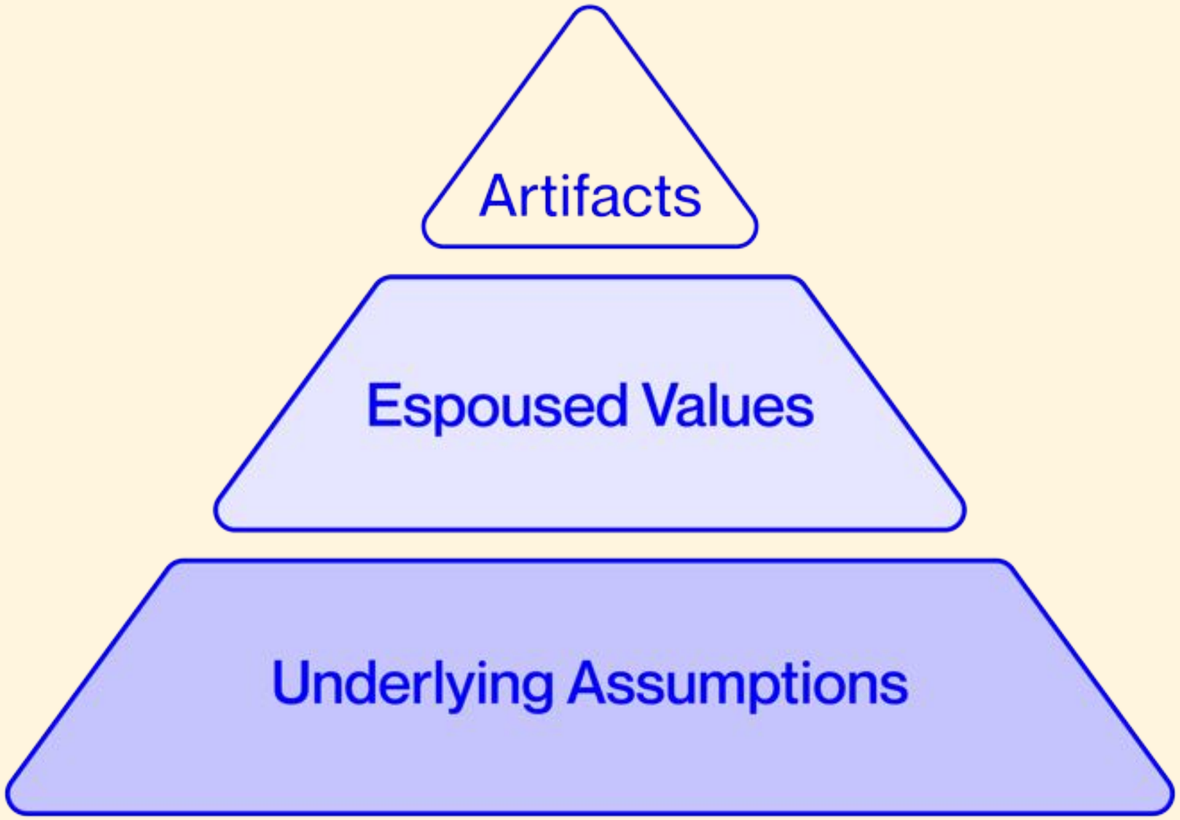
AI-Centric Culture

AI adoption Culture

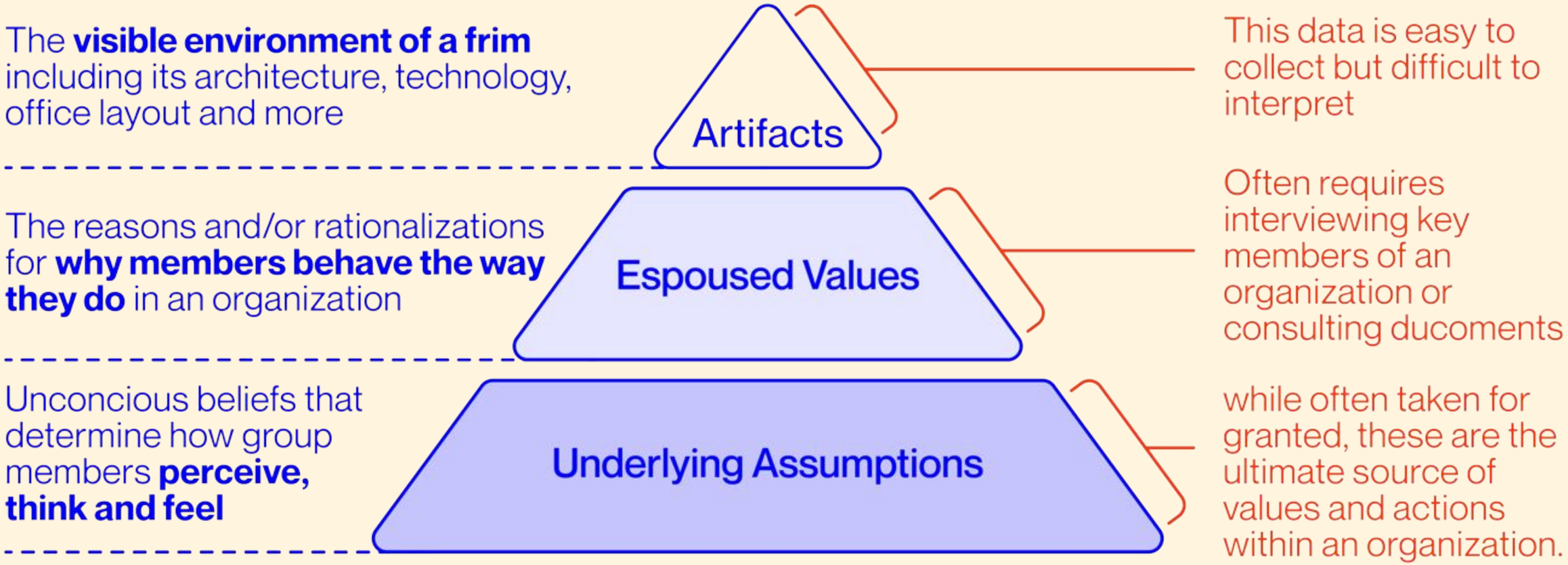
- **Description:** Cultivating a culture that embraces AI, understands its potential, and is open to the changes it brings.
- **Purpose:** To ensure that AI is not just a technological add-on but is integrated into the organizational mindset, encouraging innovation and acceptance among all stakeholders.
- **Implementation:** Initiate change management strategies, provide education and awareness programs about AI, and involve employees in AI projects to foster a sense of ownership and understanding.


“Culture eats Strategy for Breakfast
Peter Drucker
Economist and Author

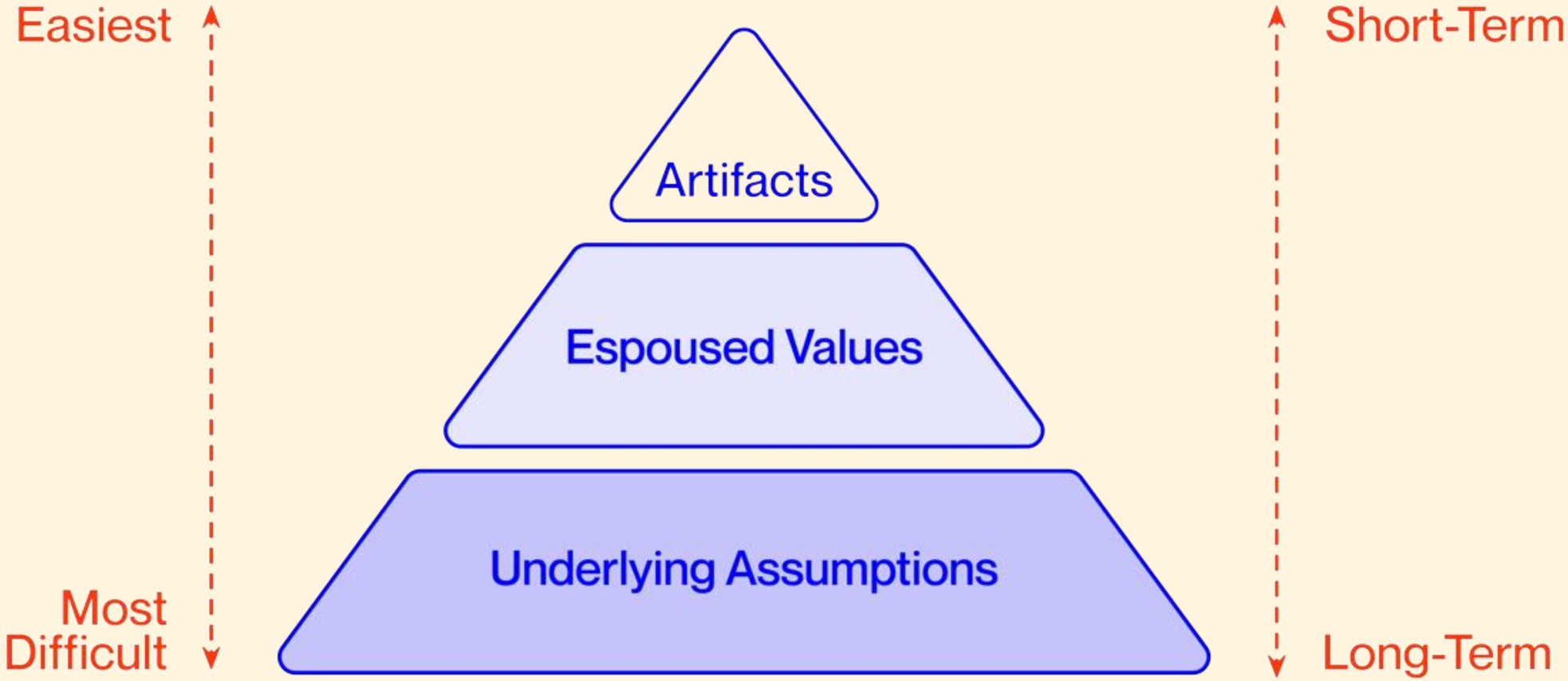
Schein's Organizational Culture Model



Schein's Organizational Culture Model



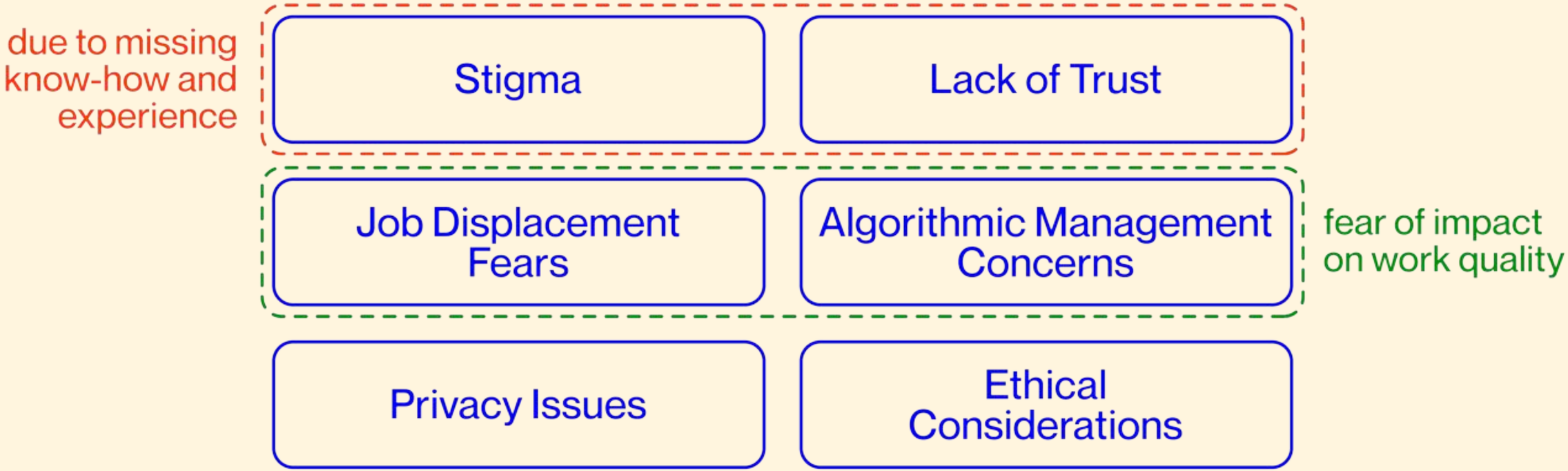
Schein's Organizational Culture Model



AI Adoption Hurdles

- Stigma
- Lack of Trust
- Job Displacement Fears
- Algorithmic Management Concerns
- Privacy Issues
- Ethical Considerations

AI Adoption Hurdles



ADAPT

Align with business strategy.

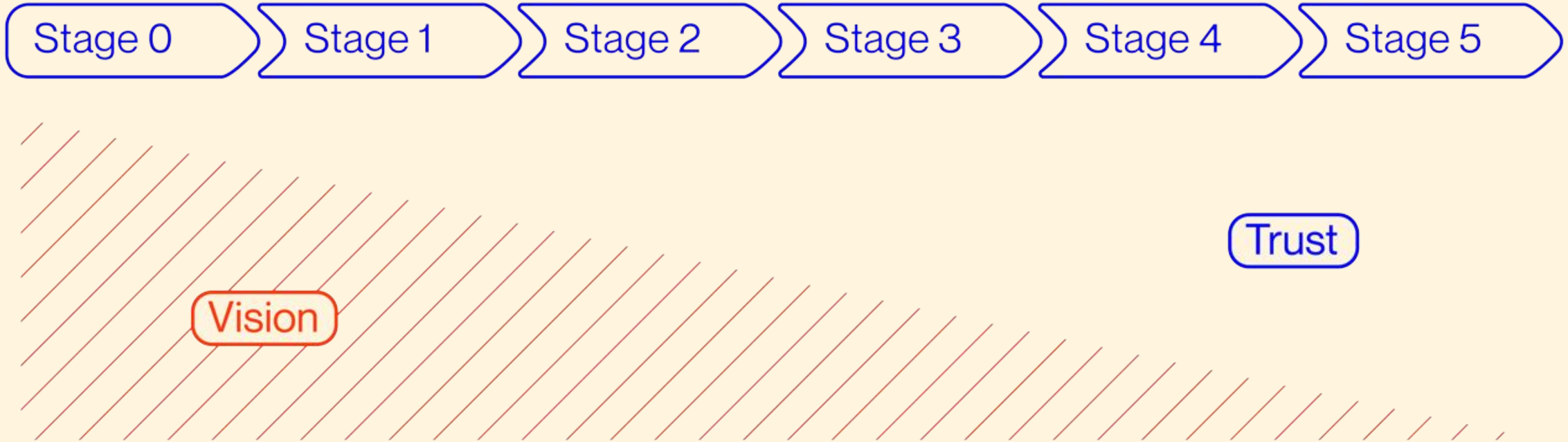
Develop communication strategy.

Advance experimentational mindset.

Prioritize education.

Tackle misinformation and biases.

Attitude Towards AI



Growing familiarization with AI will shift the underlying attitude towards it.

- How does our current company culture support innovation in AI?
- Can you identify leaders who are champions for AI in our company?
- What are the biggest misconceptions about AI among our employees?
- How do we currently encourage employees to engage with AI projects?
- Are there incentives in place to motivate AI adoption across departments?

Discussion in plenum

12:30 Uhr - 13:30 Uhr - Mittagspause

13:30 Uhr - 14:00 Uhr - **KI-zentrierte Kultur | Vortrag + Gruppenarbeit**

- "Wie gelingt die Integration einer KI-Kultur in die bestehende Unternehmenskultur", gefolgt von einer Gruppen-Diskussionen über Vorgehensweisen zum Thema.

14:00 Uhr - 14:30 Uhr - **Strukturen für KI-Initiativen: Aufbau und Verwaltung | Format: Vortrag + Gruppenarbeit**

- "Wie sehen optimale Organisationsstrukturen zur Förderung von KI-Initiativen aus?", gefolgt von einer Gruppen-Diskussionen über Vorgehensweisen zum Thema.

14:30 Uhr - 15:00 Uhr - **AI-Talent & Skills | Format: Strategie-Workshop**

- Interaktiver Workshop, der sich auf die Entwicklung von Strategien zur Talent-Akquise und den Aufbau von KI-Fachkompetenzen konzentriert.

15:00 Uhr - 15:30 Uhr - **Data Strategy und Data Governance | Format: Vortrag + Gruppenarbeit**

- Impulsvortrag und Diskussion zu bewährten Praktiken im KI-Datenmanagement.

CIONET

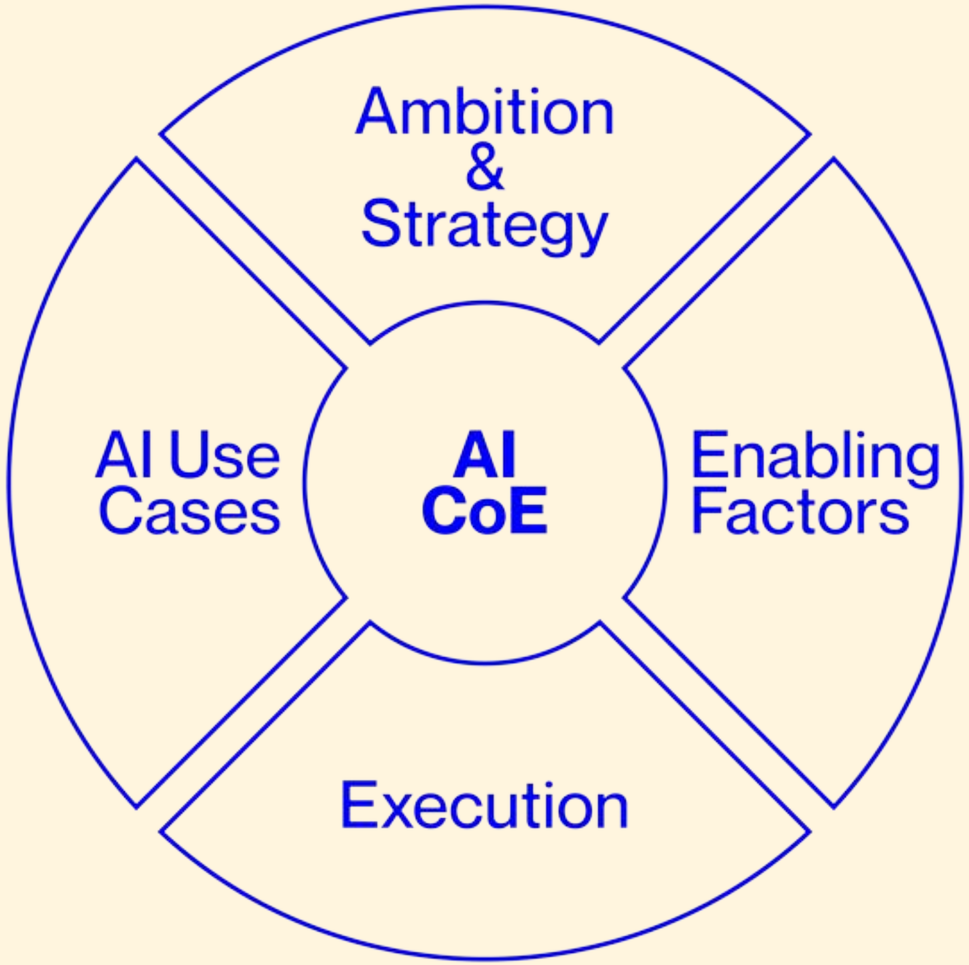
Organizational Ecosystem AI Team (internal)

AI Organizational Structure

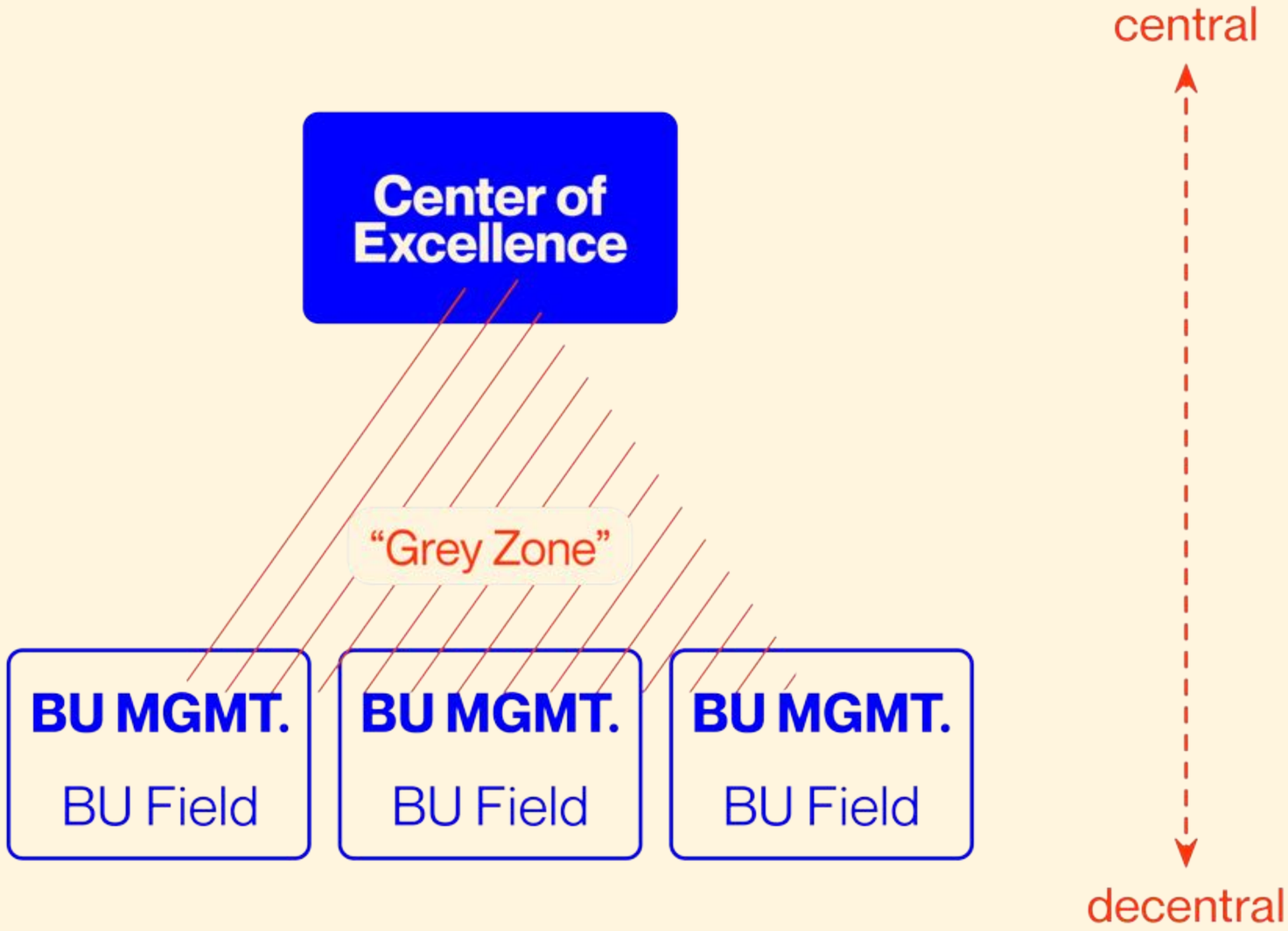
AI Team (internal)

- **Description:** This factor concerns how AI capabilities are organized within the company. It could be a centralized team (AI Center of Excellence), decentralized teams (departmental AI units), or a hybrid approach (Hub-and-Spoke model).
- **Purpose:** The structure should facilitate effective AI development and deployment, fostering collaboration while aligning with the organization's overall structure and strategy.
- **Implementation:** The structure should facilitate effective AI development and deployment, fostering collaboration while aligning with the organization's overall structure and strategy.

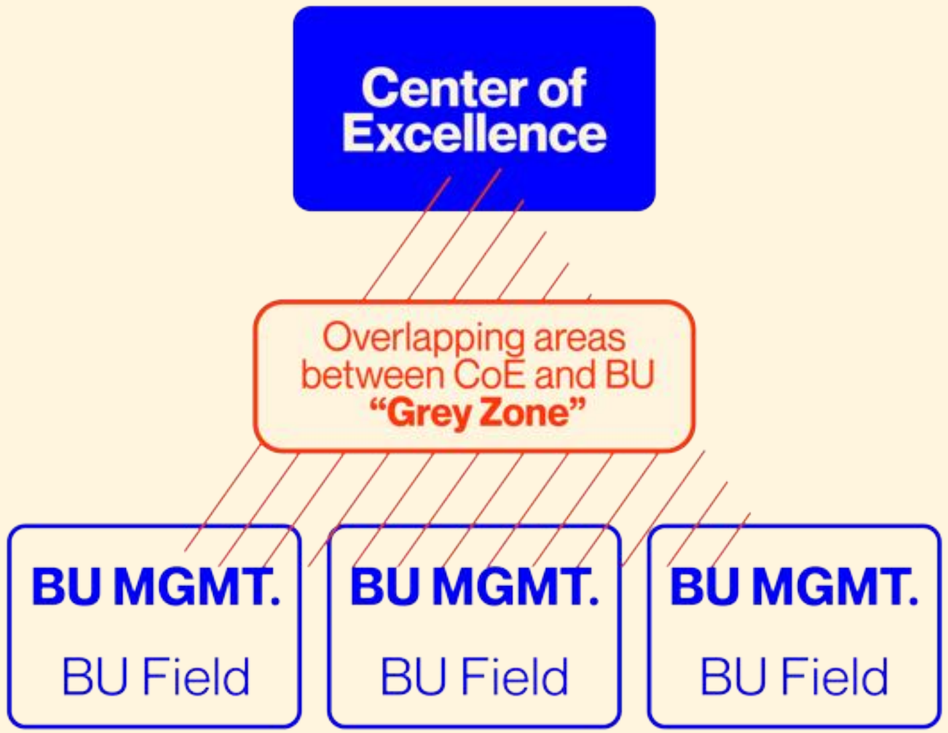
Center of Excellence (CoE)



Placing the CoE



Placing the CoE



central

decentral

CoE

- Ai Strategy
- Use-case and resource prioritization
- Hiring & developing AI talent and AI training
- Data governance
- Tool & framework selection
- Building & managing of external ecosystem

Grey Zone

- AI process definition & implementation
- Use case prioritization for business units
- Solution development & implementation

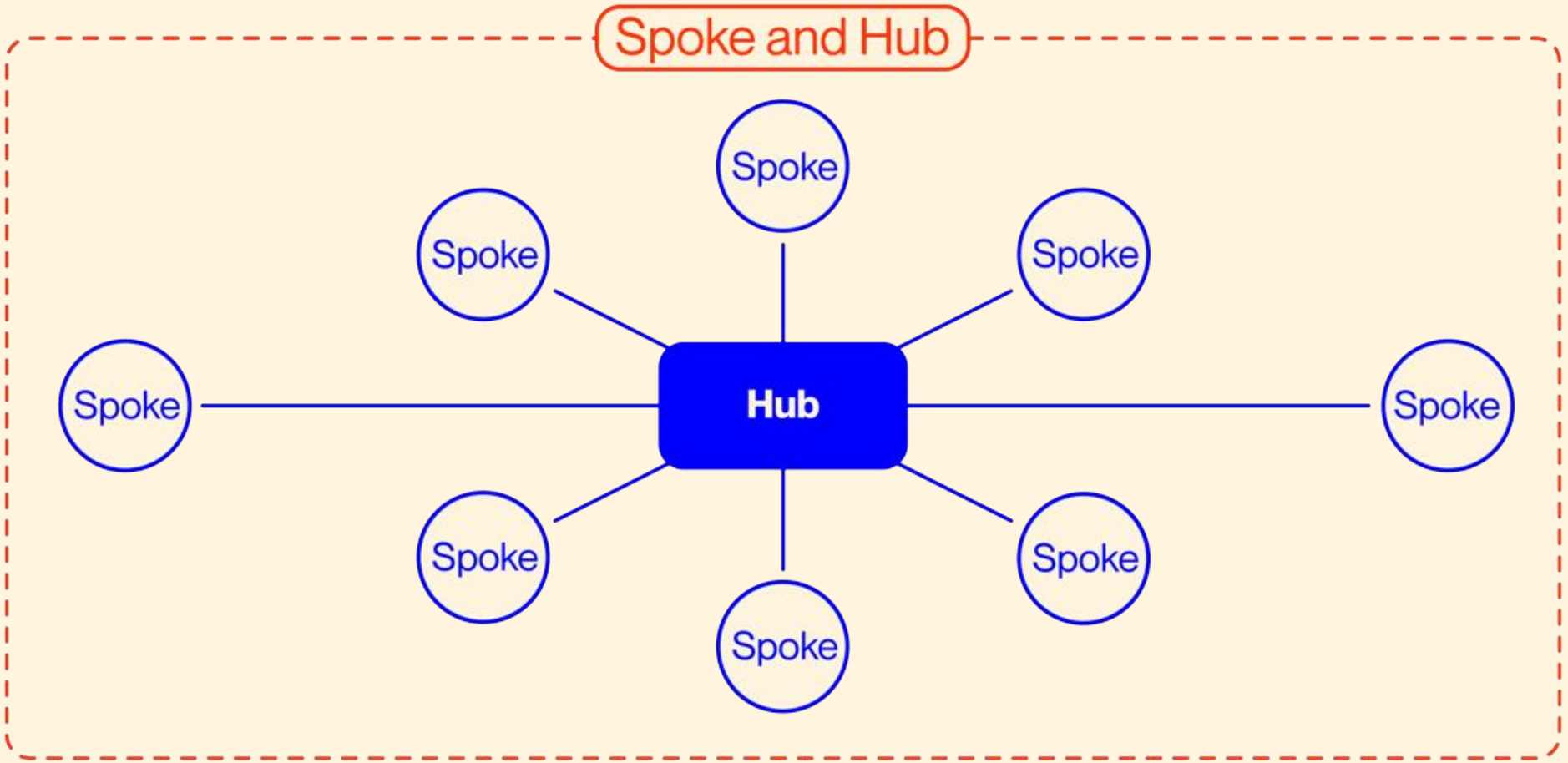
BU Management

- Product owner of AI Systems
- KPI & performance monitoring

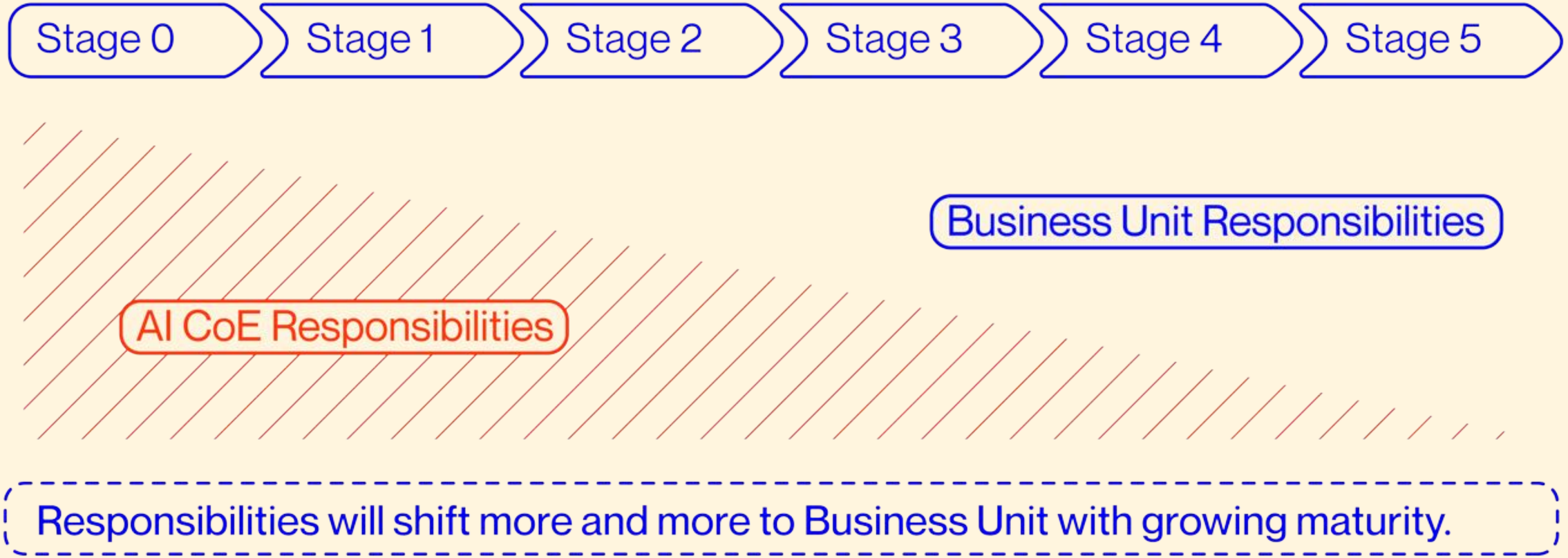
BU Field

- Tool and process operation
- Ownership of Ai output and actions

Optimizing Team Structure



Maturity and the CoE



- Who currently oversees AI initiatives within our organization?
- Is there a clear path for idea-sharing about AI across departments?
- How are AI projects prioritized and funded within our current structure?
- Do we have a dedicated AI team or center of excellence?
- What would an ideal AI-supportive organizational structure look like for us?

Discussion in plenum

12:30 Uhr - 13:30 Uhr - Mittagspause

13:30 Uhr - 14:00 Uhr - **KI-zentrierte Kultur | Vortrag + Gruppenarbeit**

- "Wie gelingt die Integration einer KI-Kultur in die bestehende Unternehmenskultur", gefolgt von einer Gruppen-Diskussionen über Vorgehensweisen zum Thema.

14:00 Uhr - 14:30 Uhr - **Strukturen für KI-Initiativen: Aufbau und Verwaltung | Format: Vortrag + Gruppenarbeit**

- "Wie sehen optimale Organisationsstrukturen zur Förderung von KI-Initiativen aus?", gefolgt von einer Gruppen-Diskussionen über Vorgehensweisen zum Thema.

14:30 Uhr - 15:00 Uhr - **AI-Talent & Skills | Format: Strategie-Workshop**

- Interaktiver Workshop, der sich auf die Entwicklung von Strategien zur Talent-Akquise und den Aufbau von KI-Fachkompetenzen konzentriert.

15:00 Uhr - 15:30 Uhr - **Data Strategy und Data Governance | Format: Vortrag + Gruppenarbeit**

- Impulsvortrag und Diskussion zu bewährten Praktiken im KI-Datenmanagement.

CIONET

People
Talent & Expertise

AI Talent and Expertise

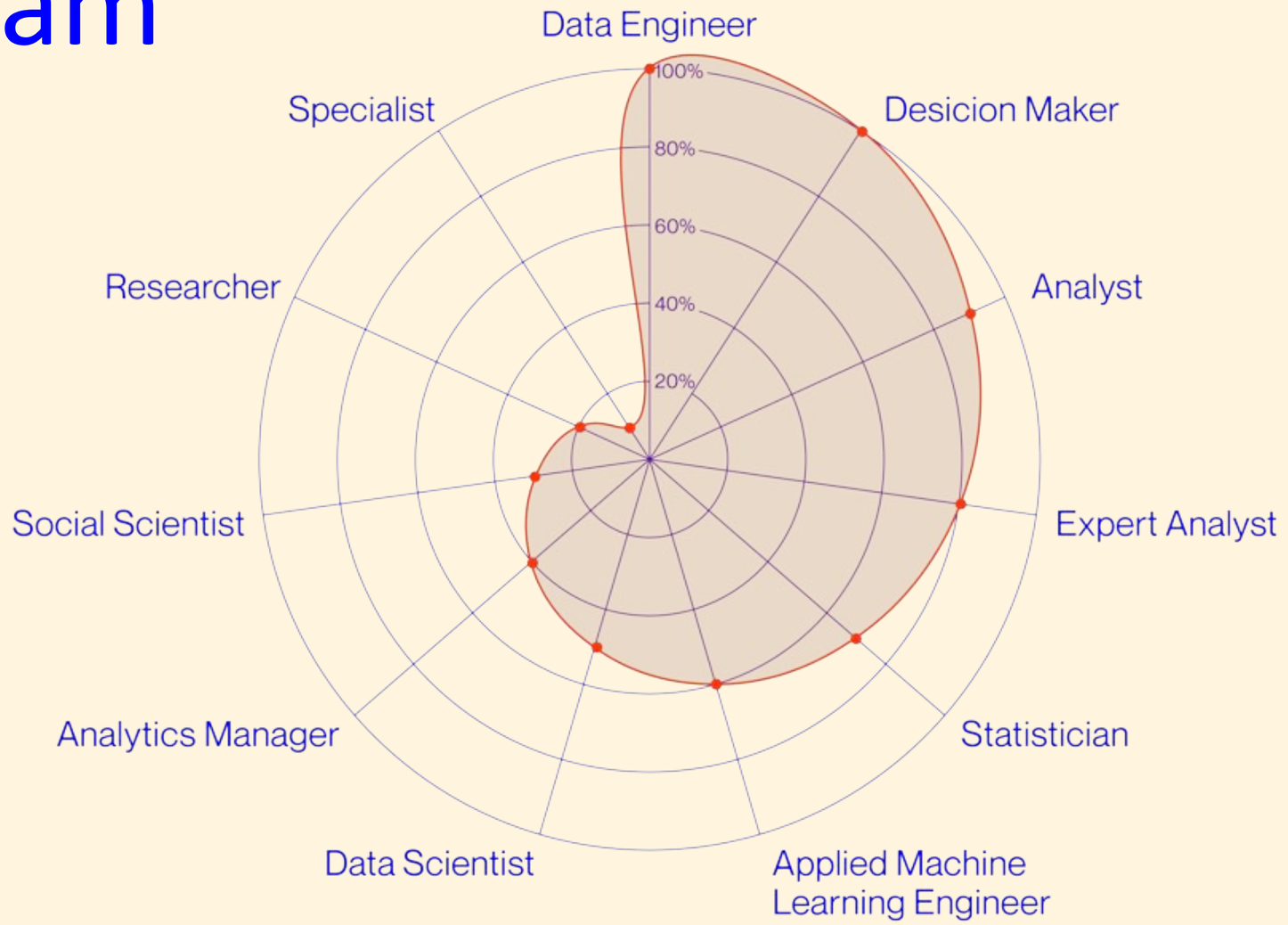
AI Competency Development

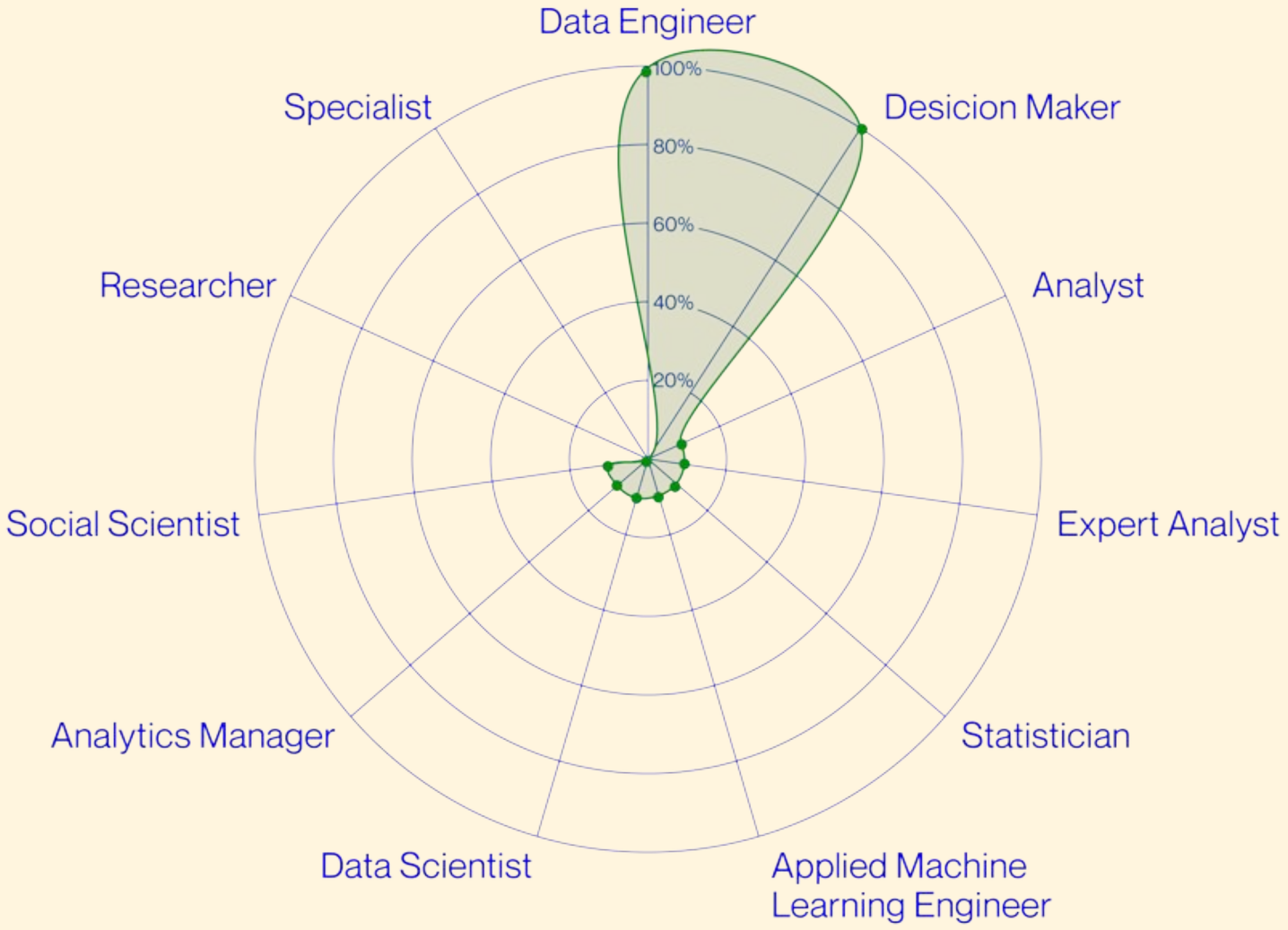
- **Description:** This involves evaluating and developing the necessary skills and expertise for AI within the organization. It includes considering whether to build, buy, or borrow talent.
- **Purpose:** To ensure that the organization has the right mix of skills and knowledge to develop and implement AI solutions effectively.
- **Implementation:** Conduct a skills gap analysis, develop training programs, hire external talent if needed, and establish a continuous learning culture to keep up with evolving AI technologies.

Roles of an AI Team

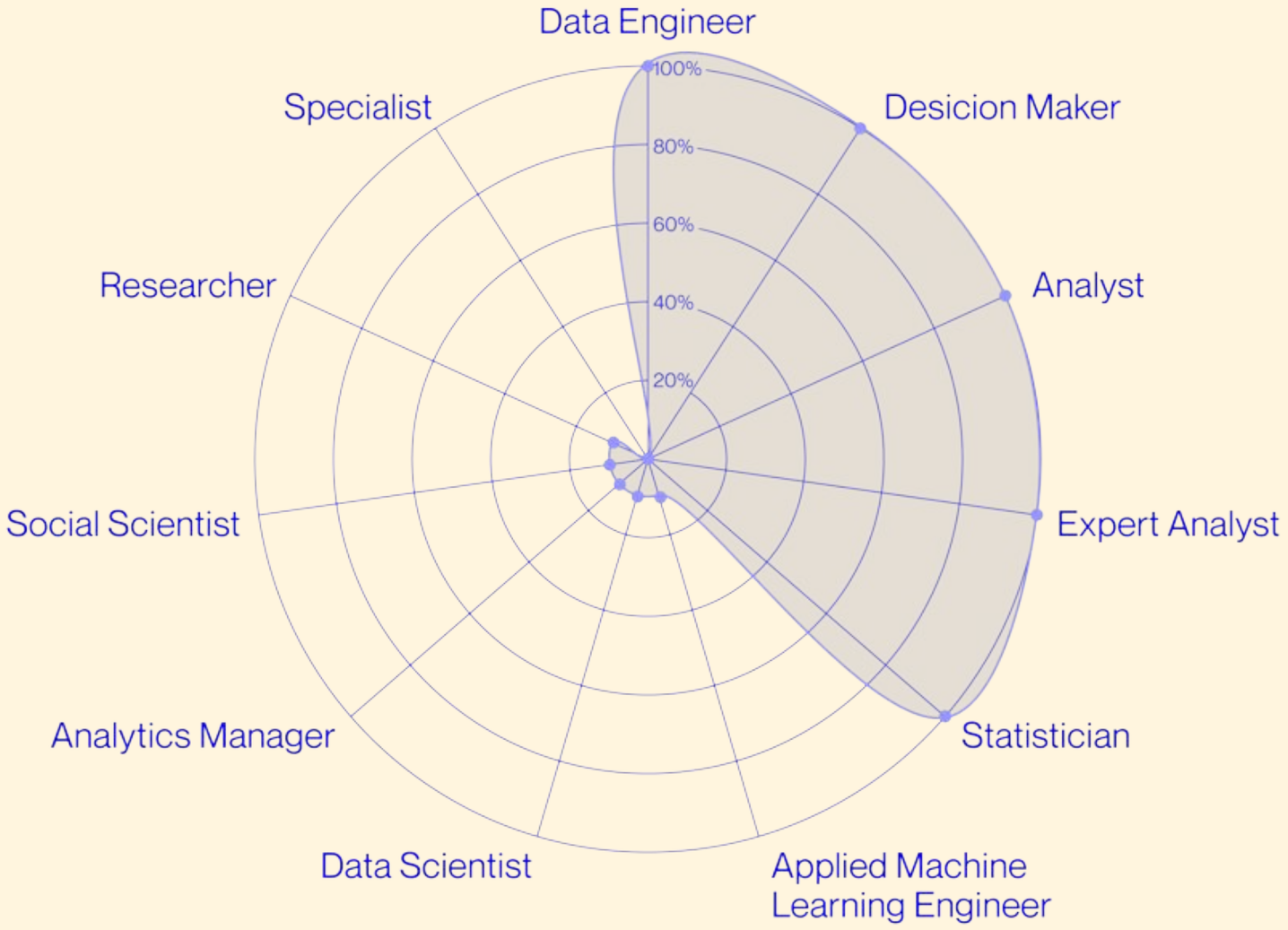
Building an AI Team

Skill	Importance
Data Engineer	10
Decision Maker	10
Analyst	9
Expert Analyst	8
Statistician	7
Applied Machine Learning Engineer	6
Data Scientist	5
Analytics Manager	4
Social Scientist	3
Researcher	2
Specialist	1

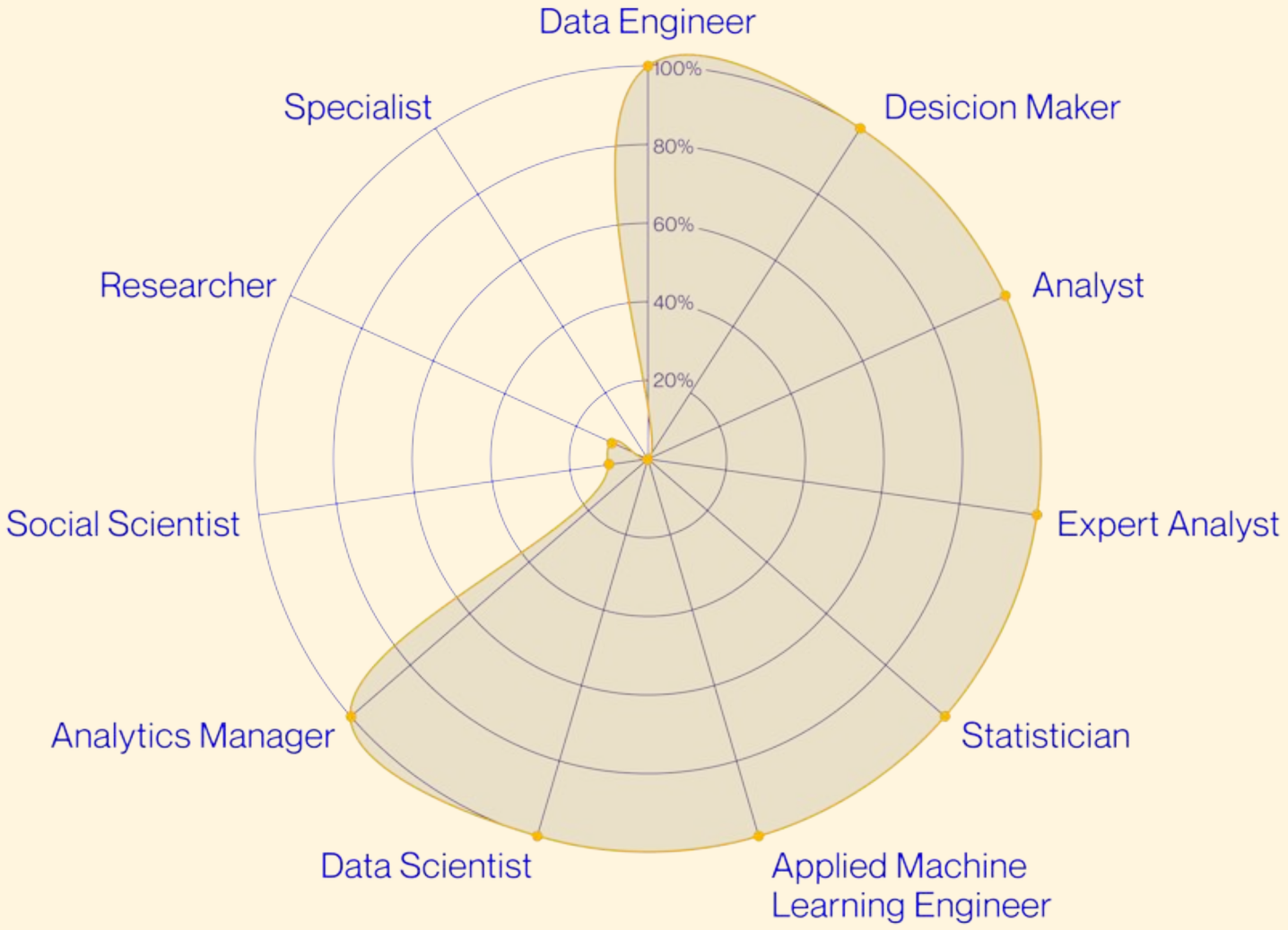



Data Engineer
Desicion Maker
Analyst
Expert Analyst
Statistician
Applied Machine
Learning Engineer
Data Scientist
Analytics Manager
Social Scientist
Researcher
Specialist
100%
80%
60%
40%
20%

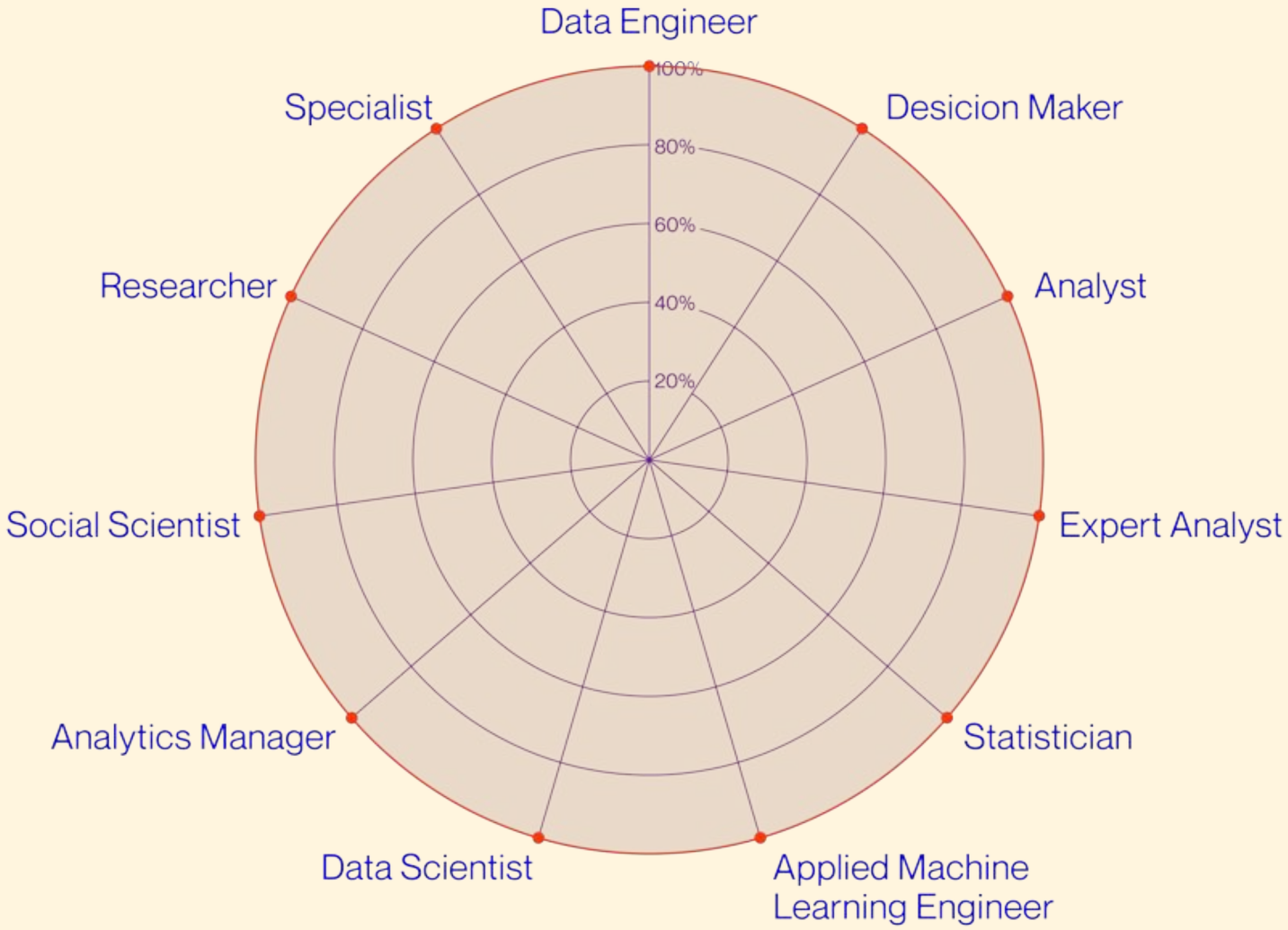
Year 1


Data Engineer
Desicion Maker
Analyst
Expert Analyst
Statistician
Applied Machine
Learning Engineer
Data Scientist
Analytics Manager
Social Scientist
Researcher
Specialist
100%
80%
60%
40%
20%

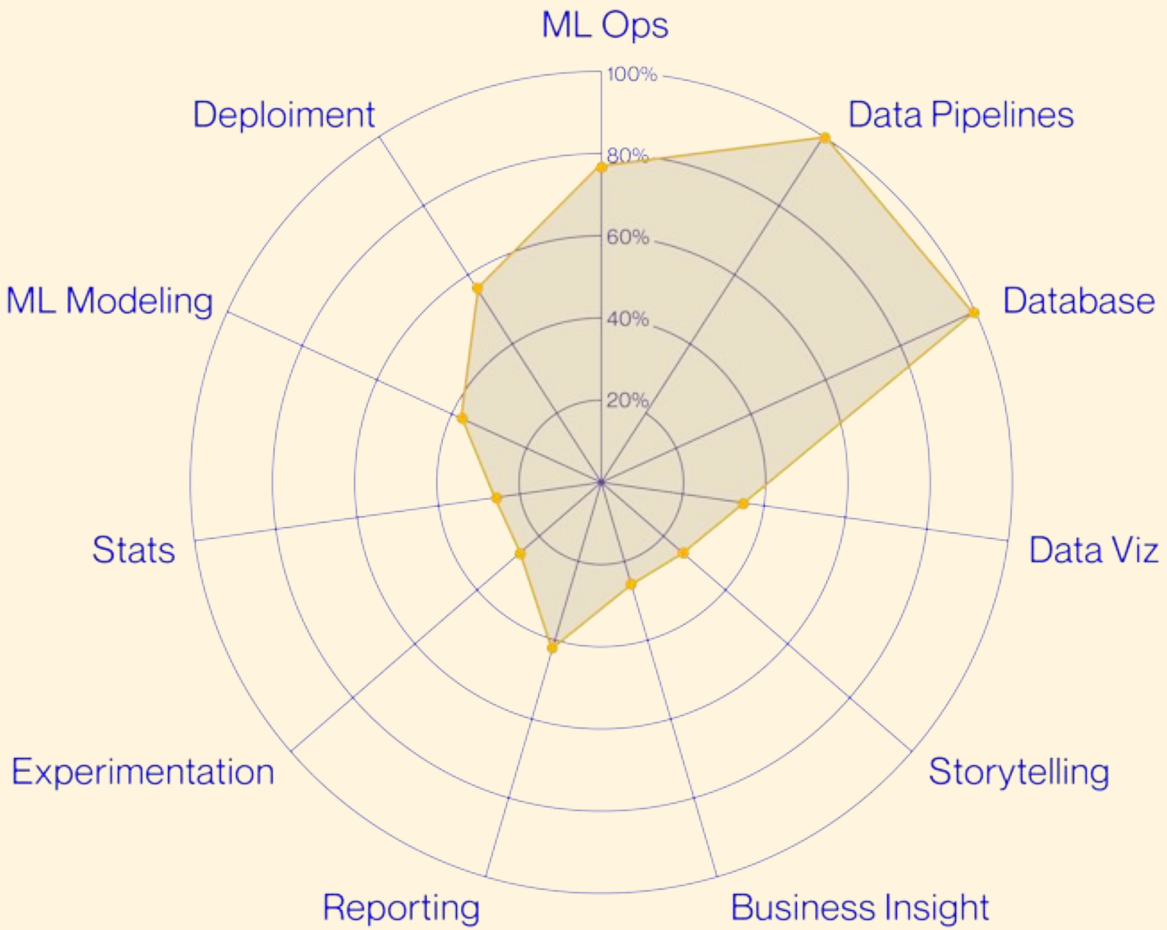
Year 2


Data Engineer
Desicion Maker
Analyst
Expert Analyst
Statistician
Applied Machine
Learning Engineer
Data Scientist
Analytics Manager
Social Scientist
Researcher
Specialist
100%
80%
60%
40%
20%

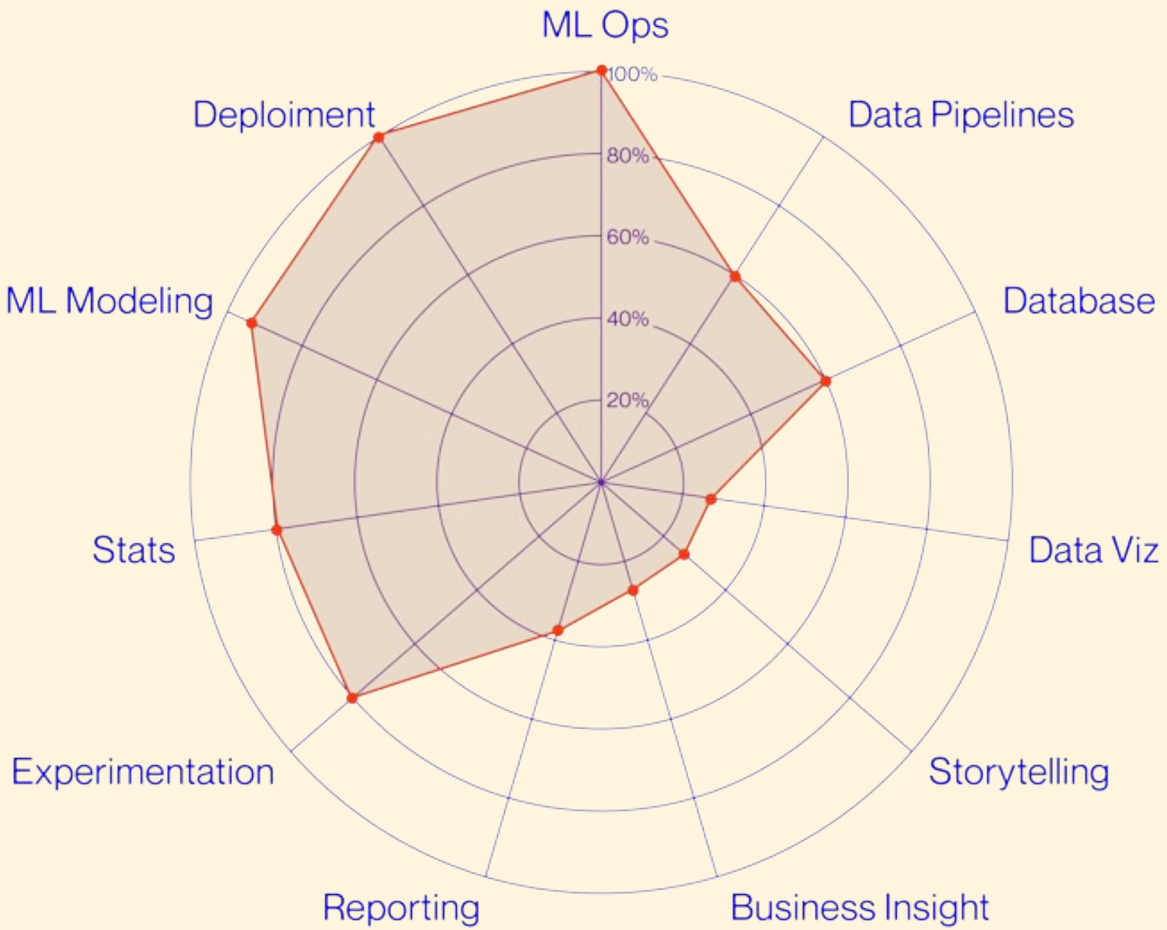
Year 3


Data Engineer
Desicion Maker
Analyst
Expert Analyst
Statistician
Applied Machine Learning Engineer
Data Scientist
Analytics Manager
Social Scientist
Researcher
Specialist
100%
80%
60%
40%
20%

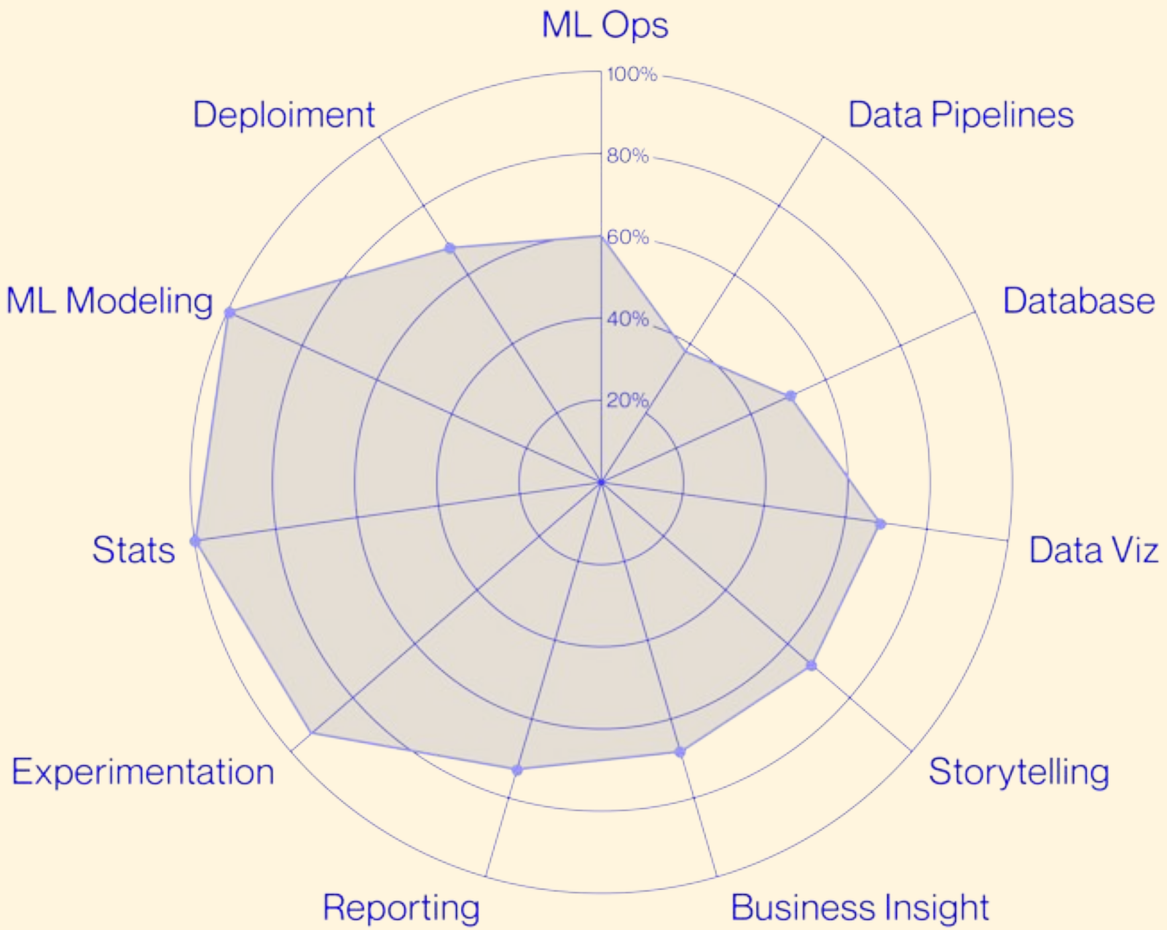
Year 4



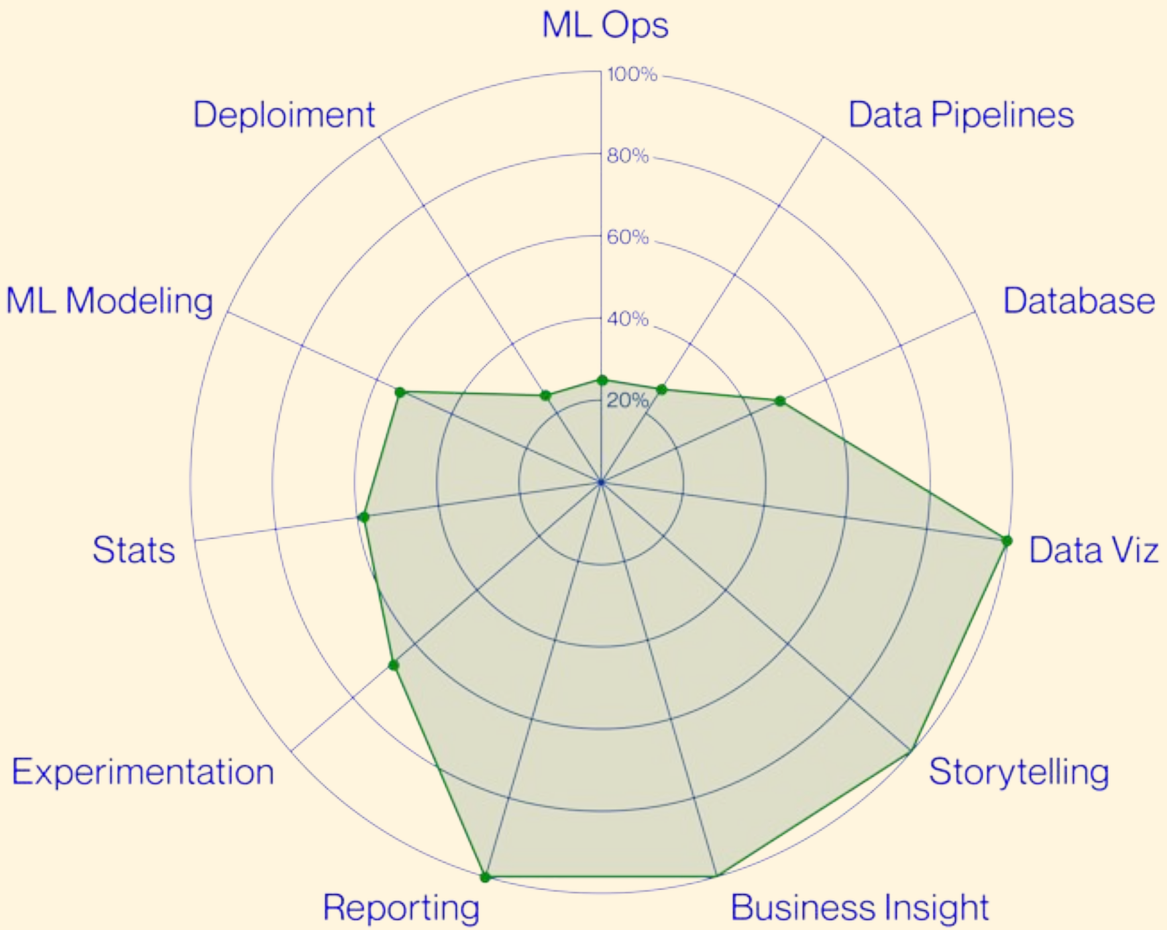
Data Engineer



ML Engineer

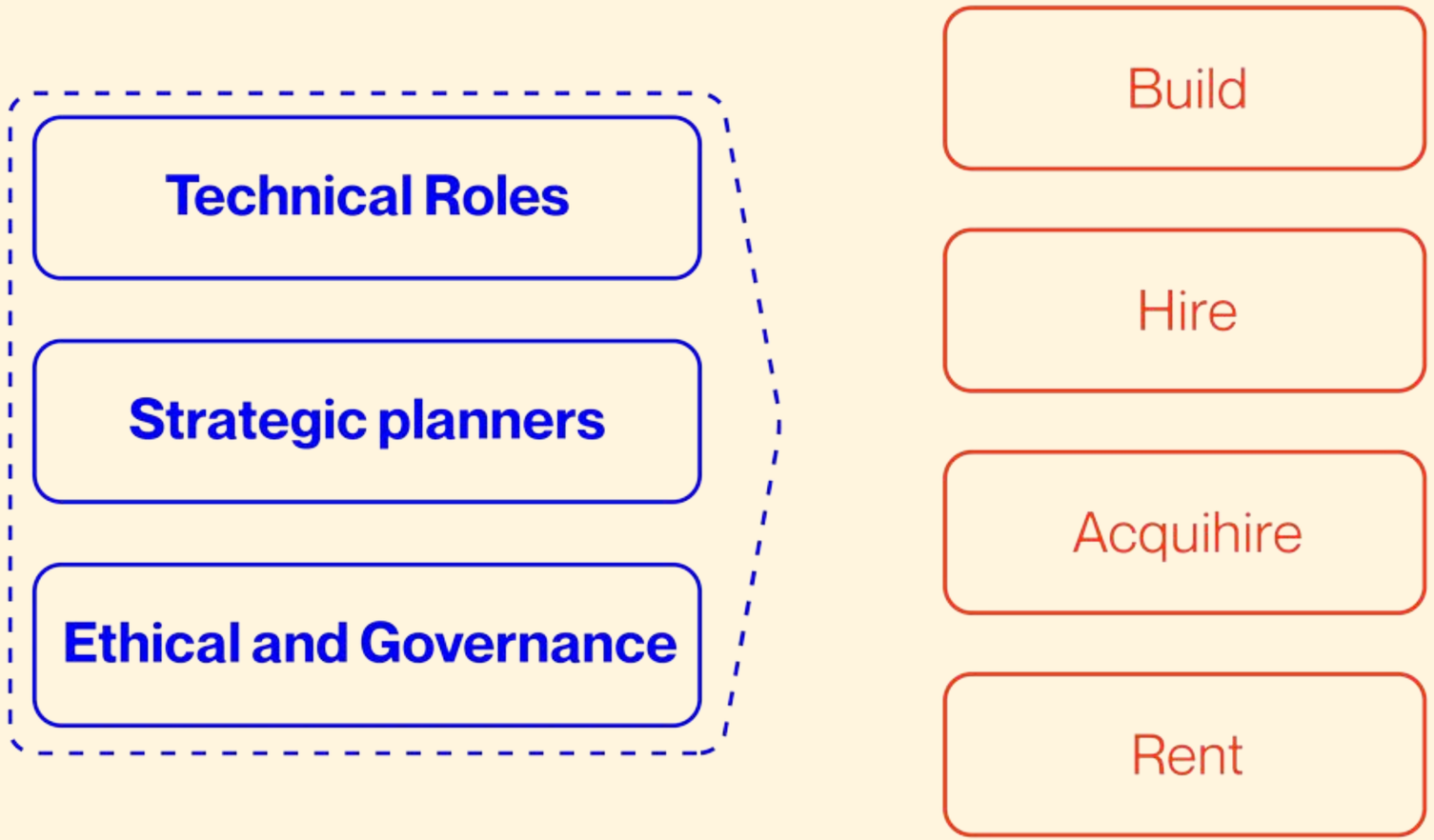


Data Scientist



Data Analyst

Acquiring Talent



- What AI skills are we currently missing, and how could we develop them?
- Do we recruit for AI expertise, or prefer to train existing staff?
- How does our organization stay updated with the latest in AI developments?
- What partnerships could we form to enhance our AI talent pool?
- How do we measure AI competency within our workforce?

Discussion in plenum

12:30 Uhr - 13:30 Uhr - Mittagspause

13:30 Uhr - 14:00 Uhr - **KI-zentrierte Kultur | Vortrag + Gruppenarbeit**

- "Wie gelingt die Integration einer KI-Kultur in die bestehende Unternehmenskultur", gefolgt von einer Gruppen-Diskussionen über Vorgehensweisen zum Thema.

14:00 Uhr - 14:30 Uhr - **Strukturen für KI-Initiativen: Aufbau und Verwaltung | Format: Vortrag + Gruppenarbeit**

- "Wie sehen optimale Organisationsstrukturen zur Förderung von KI-Initiativen aus?", gefolgt von einer Gruppen-Diskussionen über Vorgehensweisen zum Thema.

14:30 Uhr - 15:00 Uhr - **AI-Talent & Skills | Format: Strategie-Workshop**

- Interaktiver Workshop, der sich auf die Entwicklung von Strategien zur Talent-Akquise und den Aufbau von KI-Fachkompetenzen konzentriert.

15:00 Uhr - 15:30 Uhr - **Data Strategy und Data Governance | Format: Vortrag + Gruppenarbeit**

- Impulsvortrag und Diskussion zu bewährten Praktiken im KI-Datenmanagement.

CIONET

Technology Data

Data Strategy and Governance

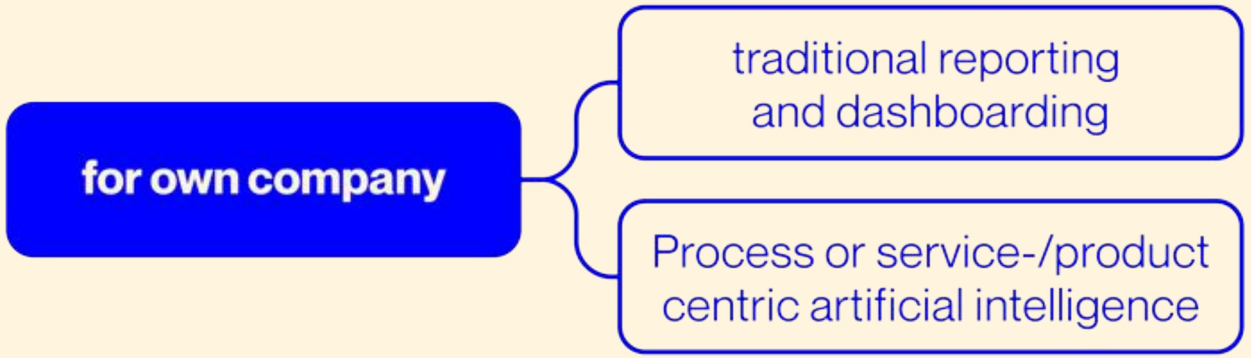
Data-Driven Foundation

- **Description:** Involves having a robust data strategy and governance model that ensures quality, accessibility, security, and ethical use of data.
- **Purpose:** Since AI systems are only as good as the data they are trained on, effective data management is crucial for successful AI implementation.
- **Implementation:** Develop a comprehensive data strategy, establish data governance policies, ensure data quality and accessibility, and implement ethical guidelines for data usage.

Data is a strategic asset for every organization

> The world's most valuable resource is **no longer oil, but data.**

Adapting Data Strategy



Source of Value

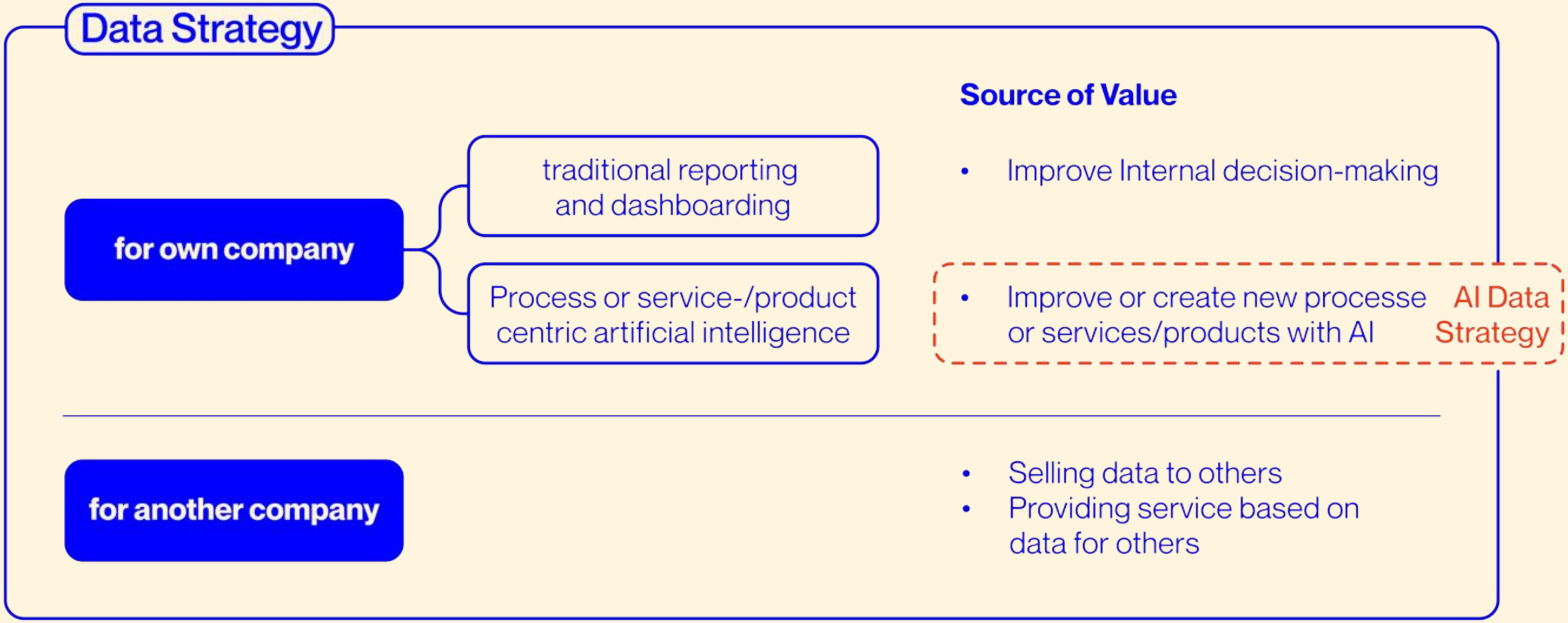
- Improve Internal decision-making
- Improve or create new processe or services/products with AI

---

for another company

- Selling data to others
- Providing service based on data for others

Adapting Data Strategy



Data Sources	• **High variety of data** from different systems and environments can be integrated via AI Models
Data Quality	• **Change of data characteristics** over time reduces model quality • Manual data preparation and cleansing from PoC phase has to be transferred to production environments
Data Infrastructure	• **Increasing bandwidth requirements**
AI Metadata	• **Versioning** of models and training datasets • **Hyperparameter tracking**

AI Ambition & use cases

AI Data Strategy

Execution

Identify the Relevant Data

- Existing use cases
- Potential future use cases

1

Source the Data

- Internal Data
- External Data
- Synthetic Data
- Labeling

2

Store the Data

- Bandwitdth requirements
- Central vs decentral storage
- Integration of data sources

3

Manage Data Quality

- Quality requirements
- Ownership
- Monitoring

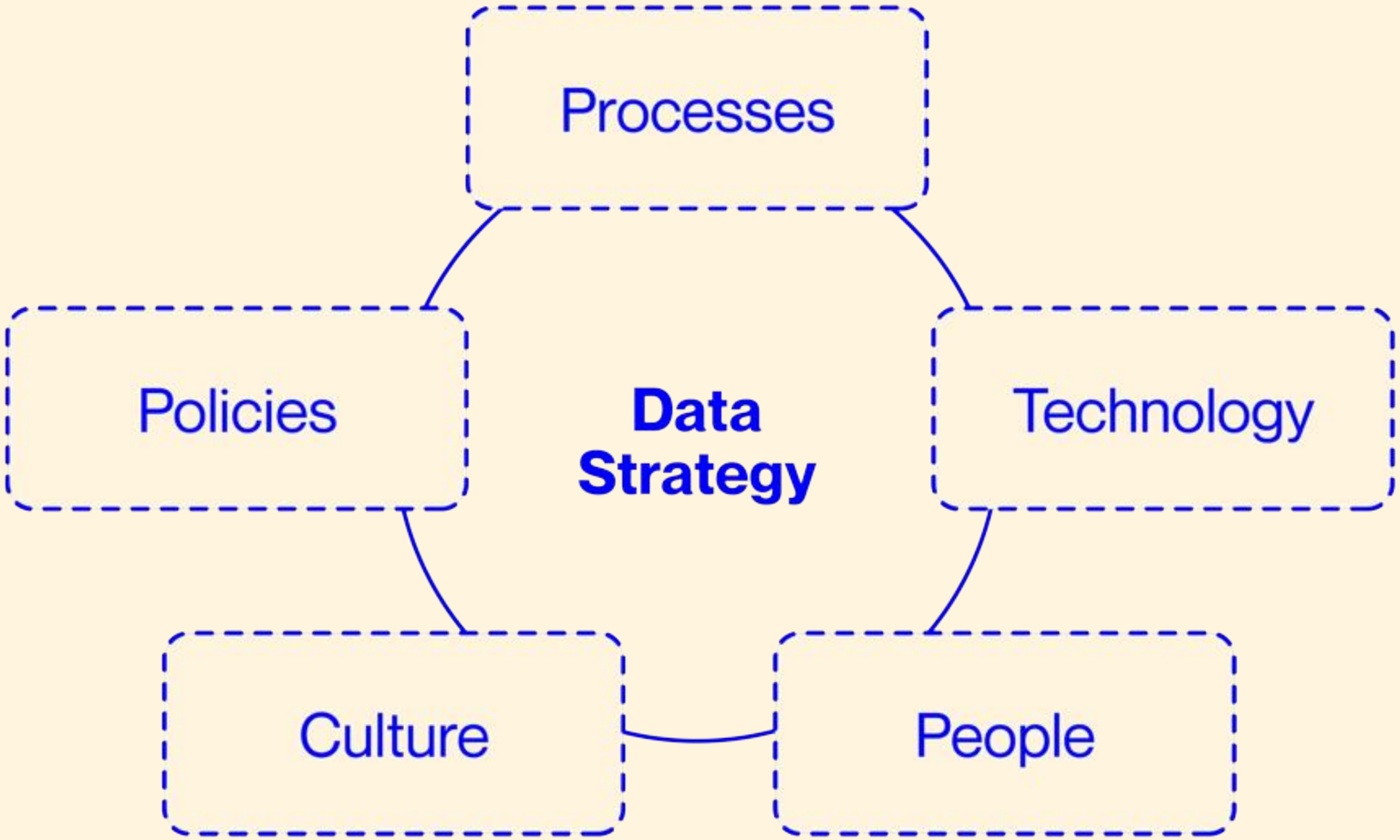
4

Build model & Data Pipelines

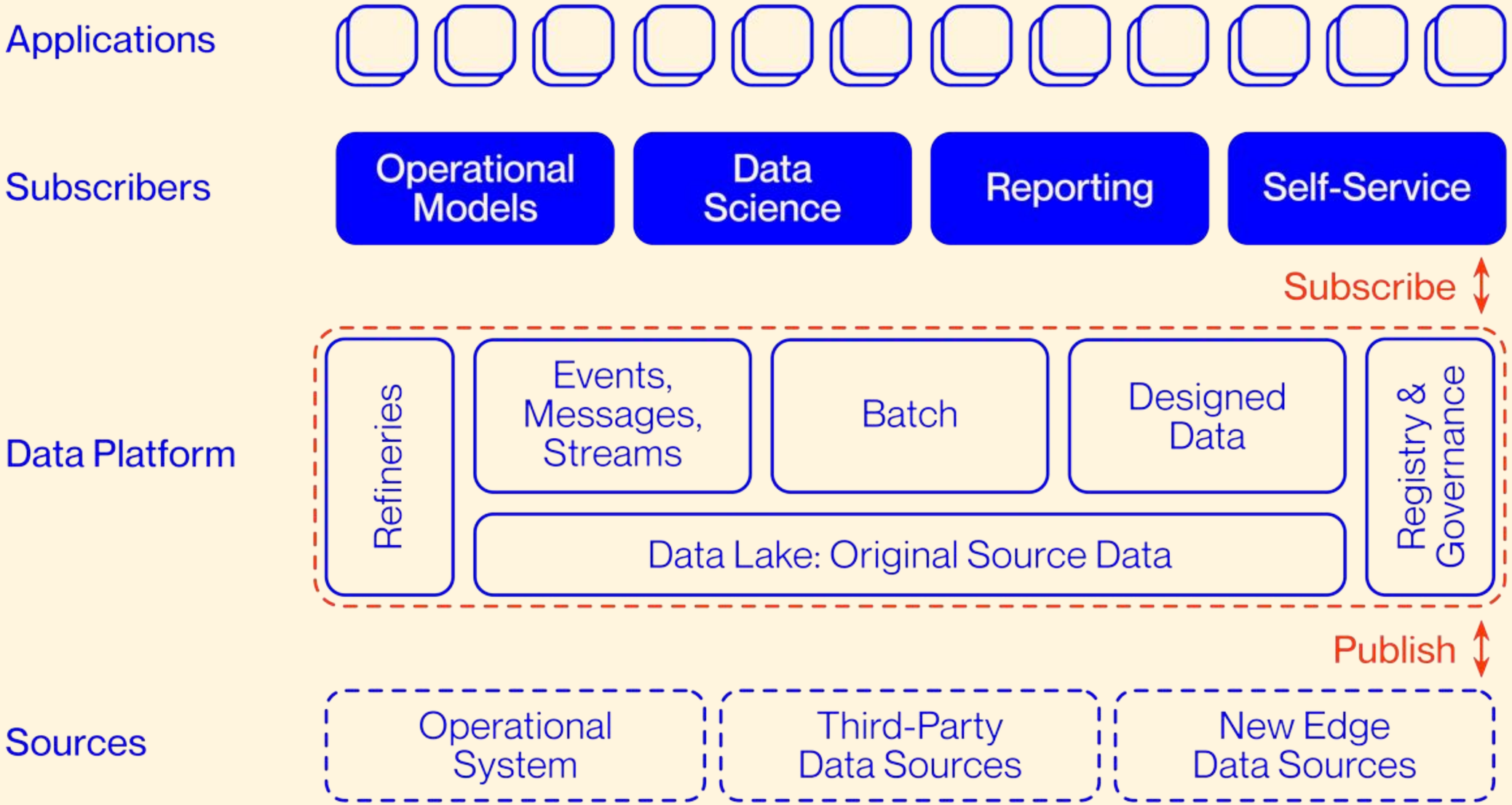
- Lab to production environment
- Real-time data preparation
- Tracking of learning

5

Data Excellence for AI Success



The Data Platform



- How is data quality maintained, and who is responsible for it?
- Are our data management practices aligned with our AI goals?
- What data governance policies do we have in place?
- How do we handle data privacy and security in relation to AI?
- What ethical considerations are included in our data strategy?

Discussion in plenum

15:30 Uhr - 16:00 Uhr - Pause (Kaffee und Kuchen)

16:00 Uhr - 16:30 Uhr - **Infrastruktur und Architektur | Format: Vortrag mit Q&A**

- " Wie baue ich eine robuste KI-Infrastruktur", mit anschließender Q&A Session.

16:30 Uhr - 17:00 Uhr - **KI-Ökosystem Integration | Format: Vortrag + Gruppenarbeit**

- Impulsvortrag mit Roundtable Diskussion über die Nutzung vonPartnerschaften in einem KI-Ökosystem, mit Schwerpunkt auf kollaborativen Strategien.

17:00 Uhr - 18:00 Uhr - **KI-Ethik und -Regulierung | Format: Vortrag + Gruppenarbeit**

- Einführung in die Fragestellung "Ethik-Kodex für die Nutzung von KI", gefolgt von einer interaktiven Gruppendiskussion über regulatorische und ethische Fragestellungen.

19:00 Uhr - 21:45 Uhr - Abendliches Networking mit inspirierender Keynote | Format: Abendessen und Networking

CIONET

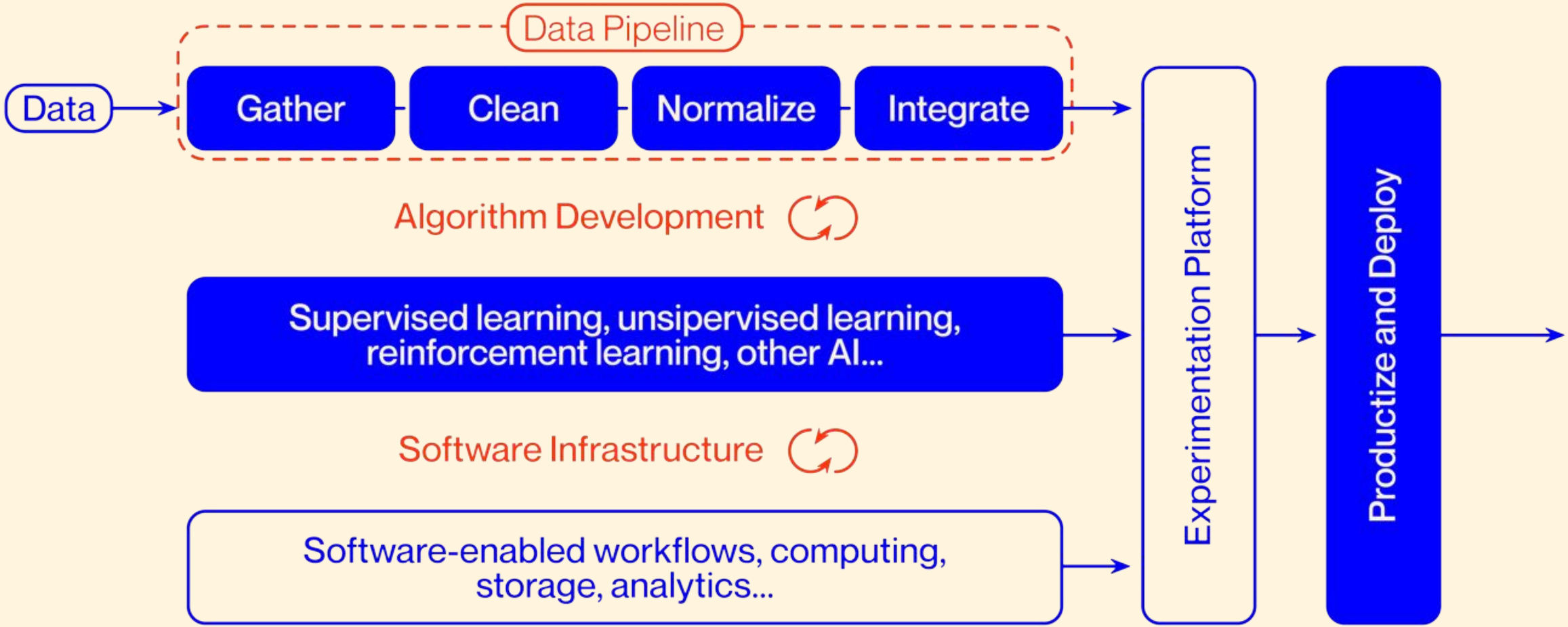
Technology
AI/IT Infrastructure

AI Infrastructure and Architecture

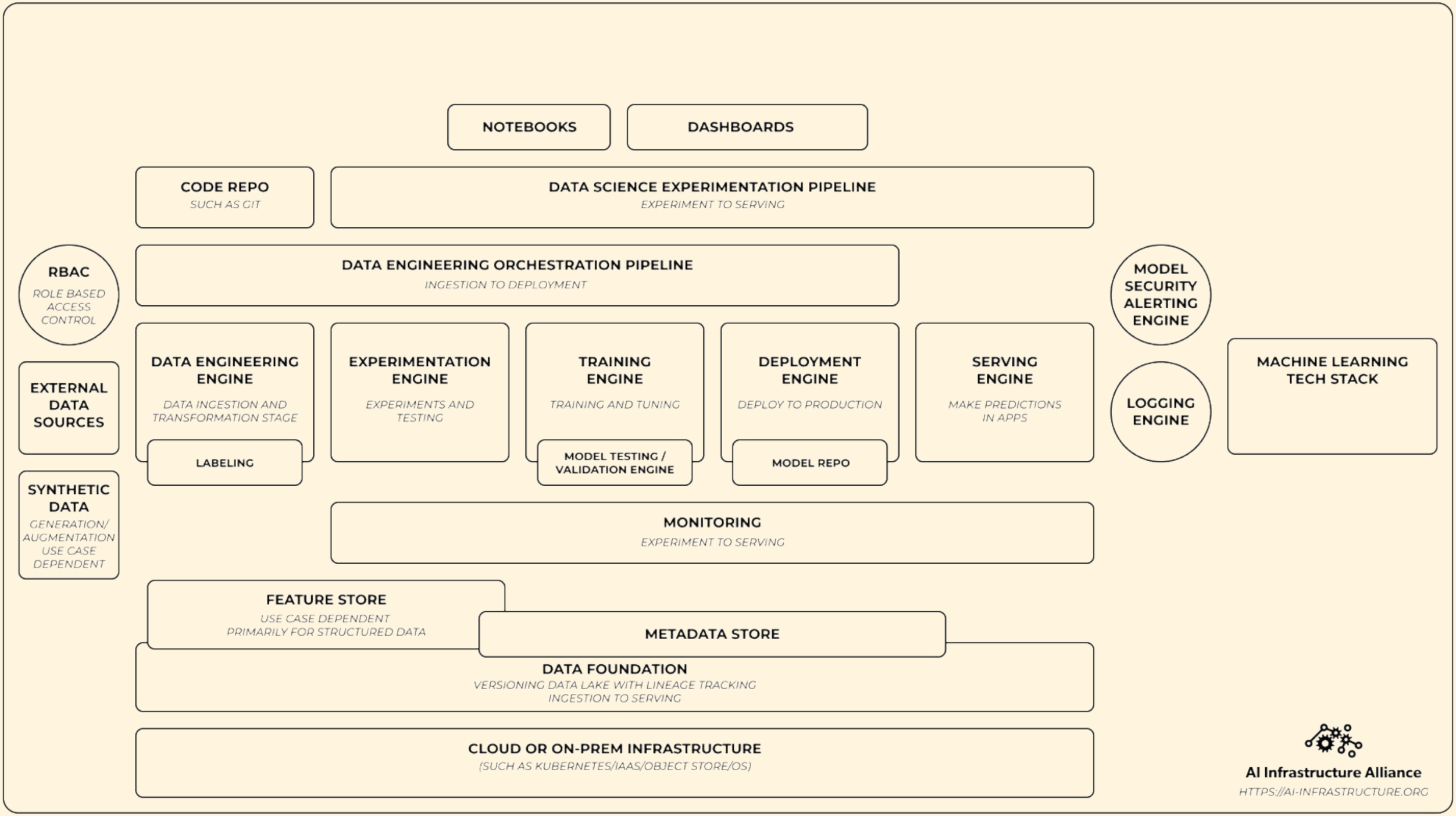
AI-Ready Technology Framework

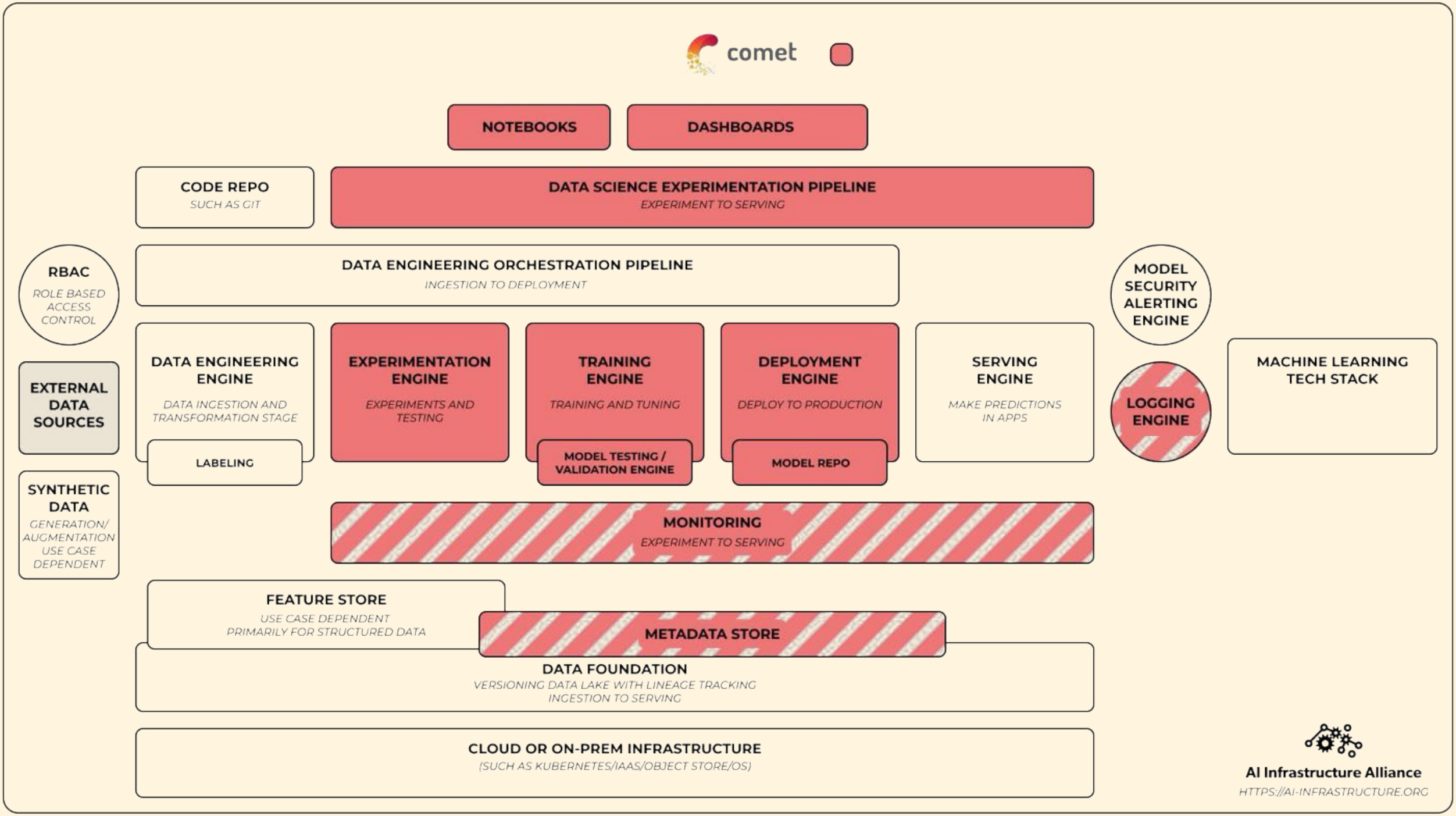
- **Description:** This factor relates to the technical infrastructure and architecture required to support AI initiatives, including hardware, software, cloud services, and other technological tools.
- **Purpose:** To provide a robust and scalable technological foundation that can support various AI applications and data processing needs.
- **Implementation:** Assess current IT infrastructure, invest in necessary upgrades, and ensure scalability and security in the technological architecture to support AI initiatives.

The AI Factory



ML / AI Infrastructure


NOTEBOOKS
DASHBOARDS
CODE REPO
SUCH AS GIT
DATA SCIENCE EXPERIMENTATION PIPELINE
EXPERIMENT TO SERVING
RBAC
ROLE BASED ACCESS CONTROL
DATA ENGINEERING ORCHESTRATION PIPELINE
INGESTION TO DEPLOYMENT
MODEL SECURITY ALERTING ENGINE
EXTERNAL DATA SOURCES
DATA ENGINEERING ENGINE
DATA INGESTION AND TRANSFORMATION STAGE
LABELING
EXPERIMENTATION ENGINE
EXPERIMENTS AND TESTING
TRAINING ENGINE
TRAINING AND TUNING
MODEL TESTING / VALIDATION ENGINE
DEPLOYMENT ENGINE
DEPLOY TO PRODUCTION
MODEL REPO
SERVING ENGINE
MAKE PREDICTIONS IN APPS
LOGGING ENGINE
MACHINE LEARNING TECH STACK
SYNTHETIC DATA
GENERATION/ AUGMENTATION USE CASE DEPENDENT
MONITORING
EXPERIMENT TO SERVING
FEATURE STORE
USE CASE DEPENDENT
PRIMARILY FOR STRUCTURED DATA
METADATA STORE
DATA FOUNDATION
VERSIONING DATA LAKE WITH LINEAGE TRACKING
INGESTION TO SERVING
CLOUD OR ON-PREM INFRASTRUCTURE
(SUCH AS KUBERNETES/IAAS/OBJECT STORE/OS)
AI Infrastructure Alliance
HTTPS://AI-INFRASTRUCTURE.ORG


comet
NOTEBOOKS
DASHBOARDS
CODE REPO
SUCH AS GIT
DATA SCIENCE EXPERIMENTATION PIPELINE
EXPERIMENT TO SERVING
RBAC
ROLE BASED ACCESS CONTROL
DATA ENGINEERING ORCHESTRATION PIPELINE
INGESTION TO DEPLOYMENT
MODEL SECURITY ALERTING ENGINE
EXTERNAL DATA SOURCES
DATA ENGINEERING ENGINE
DATA INGESTION AND TRANSFORMATION STAGE
LABELING
EXPERIMENTATION ENGINE
EXPERIMENTS AND TESTING
TRAINING ENGINE
TRAINING AND TUNING
MODEL TESTING / VALIDATION ENGINE
DEPLOYMENT ENGINE
DEPLOY TO PRODUCTION
MODEL REPO
SERVING ENGINE
MAKE PREDICTIONS IN APPS
LOGGING ENGINE
MACHINE LEARNING TECH STACK
SYNTHETIC DATA
GENERATION/ AUGMENTATION USE CASE DEPENDENT
MONITORING
EXPERIMENT TO SERVING
FEATURE STORE
USE CASE DEPENDENT
PRIMARILY FOR STRUCTURED DATA
METADATA STORE
DATA FOUNDATION
VERSIONING DATA LAKE WITH LINEAGE TRACKING
INGESTION TO SERVING
CLOUD OR ON-PREM INFRASTRUCTURE
(SUCH AS KUBERNETES/IAAS/OBJECT STORE/OS)
AI Infrastructure Alliance
HTTPS://AI-INFRASTRUCTURE.ORG

PACT *STACK*

Pachyderm · ALGORITHMIA · CLEAR ML · tecton

NOTEBOOKS | **DASHBOARDS**

CODE REPO
SUCH AS GIT

DATA SCIENCE EXPERIMENTATION PIPELINE
EXPERIMENT TO SERVING

RBAC
ROLE BASED ACCESS CONTROL

DATA ENGINEERING ORCHESTRATION PIPELINE
INGESTION TO DEPLOYMENT

MODEL SECURITY ALERTING ENGINE

EXTERNAL DATA SOURCES

DATA ENGINEERING ENGINE
DATA INGESTION AND TRANSFORMATION STAGE
- LABELING

EXPERIMENTATION ENGINE
EXPERIMENTS AND TESTING

TRAINING ENGINE
TRAINING AND TUNING
- MODEL TESTING / VALIDATION ENGINE

DEPLOYMENT ENGINE
DEPLOY TO PRODUCTION
- MODEL REPO

SERVING ENGINE
MAKE PREDICTIONS IN APPS

LOGGING ENGINE

MACHINE LEARNING TECH STACK

SYNTHETIC DATA
GENERATION/ AUGMENTATION USE CASE DEPENDENT

MONITORING
EXPERIMENT TO SERVING

FEATURE STORE
USE CASE DEPENDENT
PRIMARILY FOR STRUCTURED DATA

METADATA STORE

DATA FOUNDATION
VERSIONING DATA LAKE WITH LINEAGE TRACKING
INGESTION TO SERVING

CLOUD OR ON-PREM INFRASTRUCTURE
(SUCH AS KUBERNETES/IAAS/OBJECT STORE/OS)

AI Infrastructure Alliance
HTTPS://AI-INFRASTRUCTURE.ORG

PACTF STACK

Pachyderm · ALGORITHMIA · CLEAR ML · tecton · fiddler

NOTEBOOKS | **DASHBOARDS**

CODE REPO
SUCH AS GIT

DATA SCIENCE EXPERIMENTATION PIPELINE
EXPERIMENT TO SERVING

RBAC
ROLE BASED ACCESS CONTROL

DATA ENGINEERING ORCHESTRATION PIPELINE
INGESTION TO DEPLOYMENT

MODEL SECURITY ALERTING ENGINE

EXTERNAL DATA SOURCES

DATA ENGINEERING ENGINE
DATA INGESTION AND TRANSFORMATION STAGE
- LABELING

EXPERIMENTATION ENGINE
EXPERIMENTS AND TESTING

TRAINING ENGINE
TRAINING AND TUNING
- MODEL TESTING / VALIDATION ENGINE

DEPLOYMENT ENGINE
DEPLOY TO PRODUCTION
- MODEL REPO

SERVING ENGINE
MAKE PREDICTIONS IN APPS

LOGGING ENGINE

MACHINE LEARNING TECH STACK

SYNTHETIC DATA
GENERATION/ AUGMENTATION USE CASE DEPENDENT

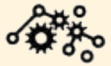
MONITORING
EXPERIMENT TO SERVING

FEATURE STORE
USE CASE DEPENDENT
PRIMARILY FOR STRUCTURED DATA

METADATA STORE

DATA FOUNDATION
VERSIONING DATA LAKE WITH LINEAGE TRACKING
INGESTION TO SERVING

CLOUD OR ON-PREM INFRASTRUCTURE
(SUCH AS KUBERNETES/IAAS/OBJECT STORE/OS)



AI Infrastructure Alliance
HTTPS://AI-INFRASTRUCTURE.ORG

- Does our current IT infrastructure support the scale of AI we aim for?
- Are our data storage and processing capabilities AI-ready?
- How quickly can we integrate new AI technologies into our existing system?
- What are the biggest infrastructure challenges we face in adopting AI?
- How do we approach cybersecurity in the context of AI?

Discussion in plenum

15:30 Uhr - 16:00 Uhr - Pause (Kaffee und Kuchen)

16:00 Uhr - 16:30 Uhr - **Infrastruktur und Architektur | Format: Vortrag mit Q&A**

- " Wie baue ich eine robuste KI-Infrastruktur", mit anschließender Q&A Session.

16:30 Uhr - 17:00 Uhr - **KI-Ökosystem Integration | Format: Vortrag + Gruppenarbeit**

- Impulsvortrag mit Roundtable Diskussion über die Nutzung vonPartnerschaften in einem KI-Ökosystem, mit Schwerpunkt auf kollaborativen Strategien.

17:00 Uhr - 18:00 Uhr - **KI-Ethik und -Regulierung | Format: Vortrag + Gruppenarbeit**

- Einführung in die Fragestellung "Ethik-Kodex für die Nutzung von KI", gefolgt von einer interaktiven Gruppendiskussion über regulatorische und ethische Fragestellungen.

19:00 Uhr - 21:45 Uhr - Abendliches Networking mit inspirierender Keynote | Format: Abendessen und Networking

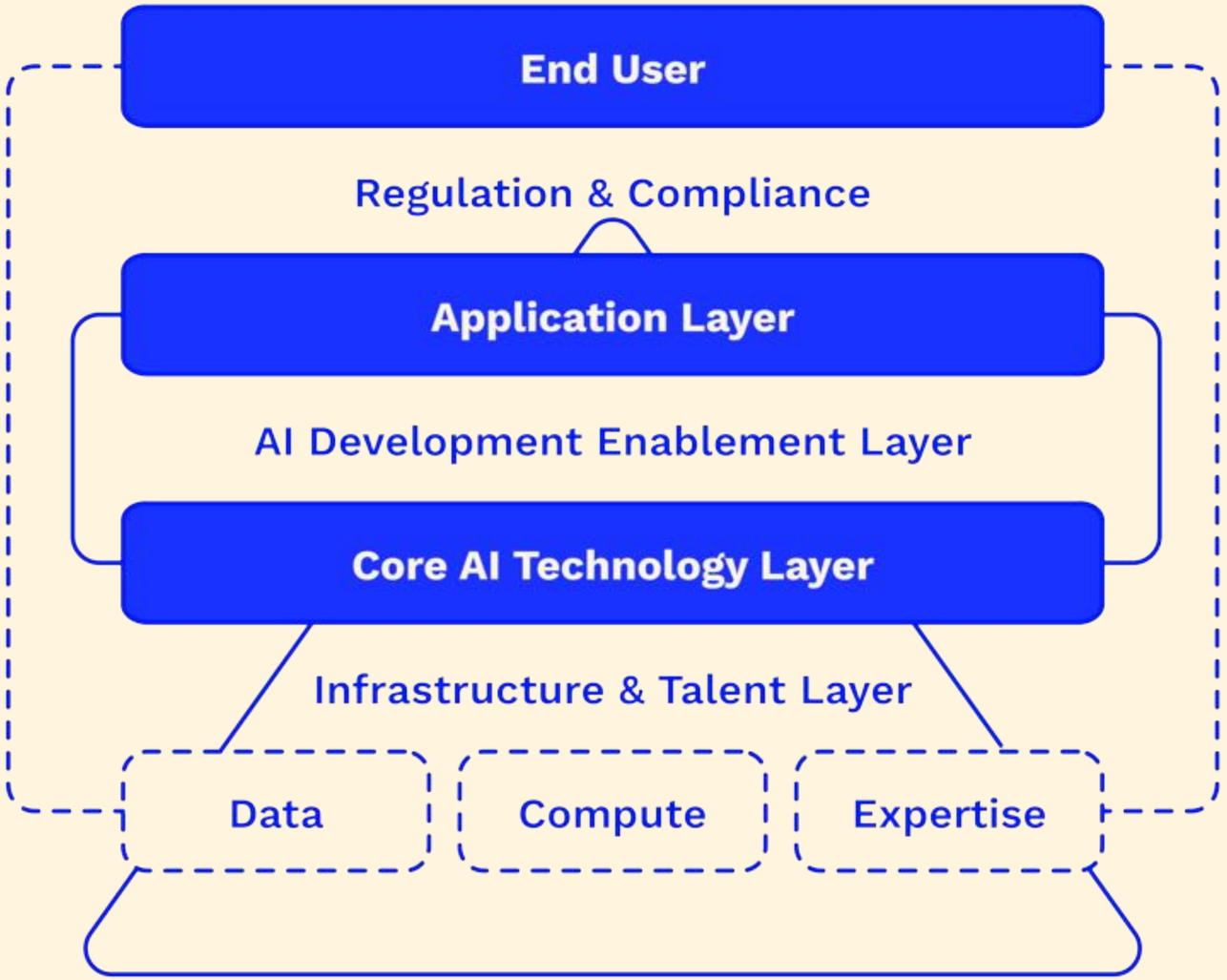
CIONET

Organizational Ecosystem Partnerships (external)

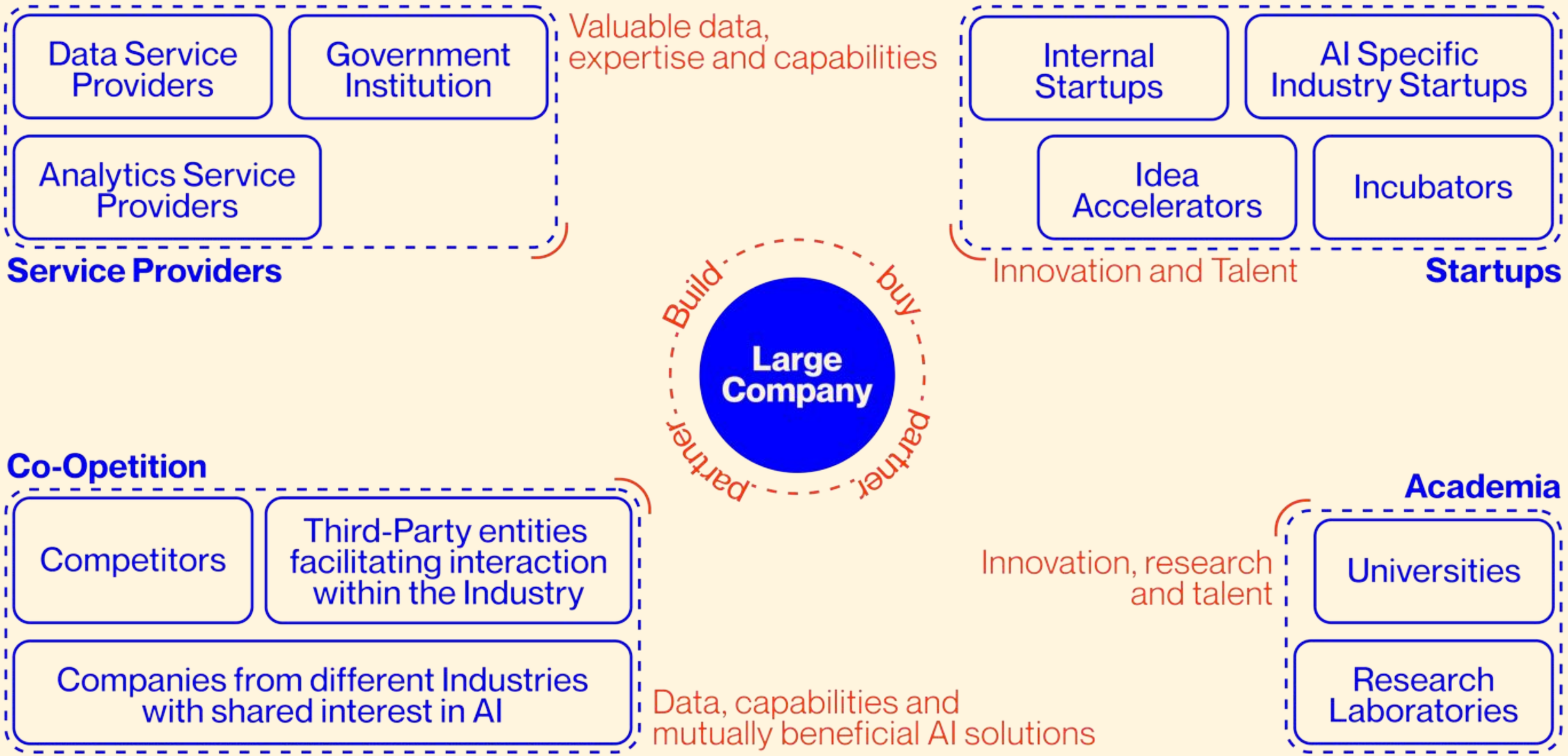
AI Ecosystem Integration

Strategic AI Partnerships

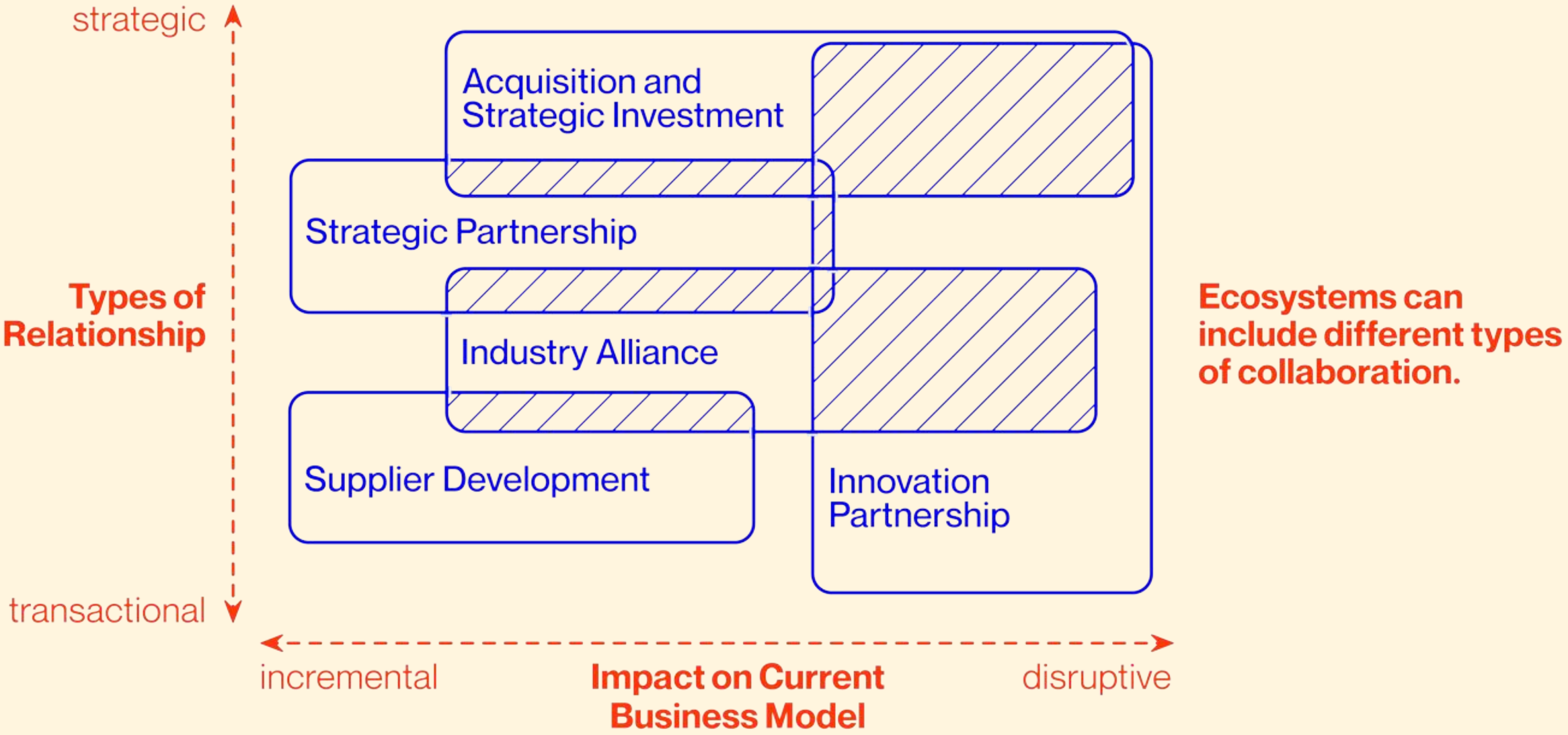
- **Description:** This factor focuses on how the organization interacts with the broader AI ecosystem, including partnerships with academic institutions, industry consortiums, technology vendors, and startups.
- **Purpose:** To leverage external knowledge, technologies, and trends, thereby enhancing the organization's own AI capabilities and staying ahead of the curve.
- **Implementation:** Identify and establish strategic partnerships, participate in AI-focused consortiums, and engage with the academic community for research collaborations.


End User
Regulation & Compliance
Application Layer
AI Development Enablement Layer
Core AI Technology Layer
Infrastructure & Talent Layer
Data
Compute
Expertise

AI Ecosystem Partners



Collaboration in AI



- How do we currently leverage external AI knowledge and technologies?
- What strategic AI partnerships have we established or are we lacking?
- How do we collaborate with startups and academia in the AI space?
- What do we contribute to the broader AI ecosystem?
- How can we better harness the AI ecosystem to accelerate our goals?

Discussion in plenum

15:30 Uhr - 16:00 Uhr - Pause (Kaffee und Kuchen)

16:00 Uhr - 16:30 Uhr - **Infrastruktur und Architektur | Format: Vortrag mit Q&A**

- " Wie baue ich eine robuste KI-Infrastruktur", mit anschließender Q&A Session.

16:30 Uhr - 17:00 Uhr - **KI-Ökosystem Integration | Format: Vortrag + Gruppenarbeit**

- Impulsvortrag mit Roundtable Diskussion über die Nutzung vonPartnerschaften in einem KI-Ökosystem, mit Schwerpunkt auf kollaborativen Strategien.

17:00 Uhr - 18:00 Uhr - **KI-Ethik und -Regulierung | Format: Vortrag + Gruppenarbeit**

- Einführung in die Fragestellung "Ethik-Kodex für die Nutzung von KI", gefolgt von einer interaktiven Gruppendiskussion über regulatorische und ethische Fragestellungen.

19:00 Uhr - 21:45 Uhr - Abendliches Networking mit inspirierender Keynote | Format: Abendessen und Networking

CIONET