Embedding Big Data Analytics Culture In the Organisation:

Getting Started

17th April 2019

DRIVERS, STRATEGY

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What's **Driving the Data Revolution?**

- People
- Industry Boundaries
- Technology

Digital Transformation Trends for 2019

Top Business Trends

- CEO leading digital transformation
- Digital education and skill building of workers
- Better integration of digital initiatives
- Digital regulation as headwind
- Improved leadership communication
- Scaling digital change more sustainably

Top Tech Trends

- Strong enterprise data foundation
- Investment to reduce technical debt
- Refining and updating cloud strategy
- Delivering on CX faster and better
- Adopting emerging tech even faster
- Betting on analytics to the highest degree

From http://zdnet.com/blog/hinchcliffe on ZDNet. by Dion Hinchcliffe

The Fourth Industrial Revolution

1st Industrial Revolution
Steam

1784

2nd Industrial Revolution
Electricity

1870

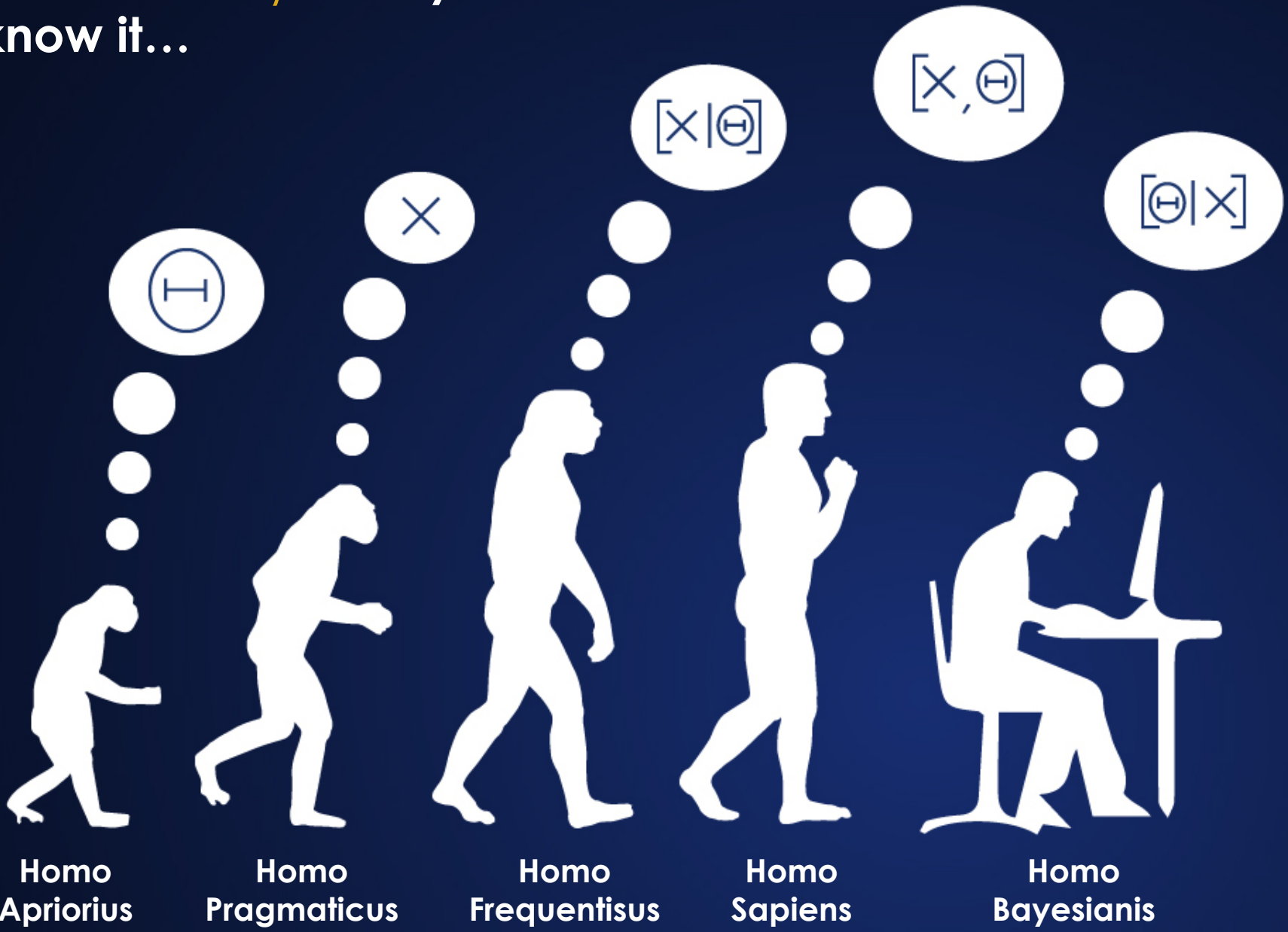
3rd Industrial Revolution
Computing

1969

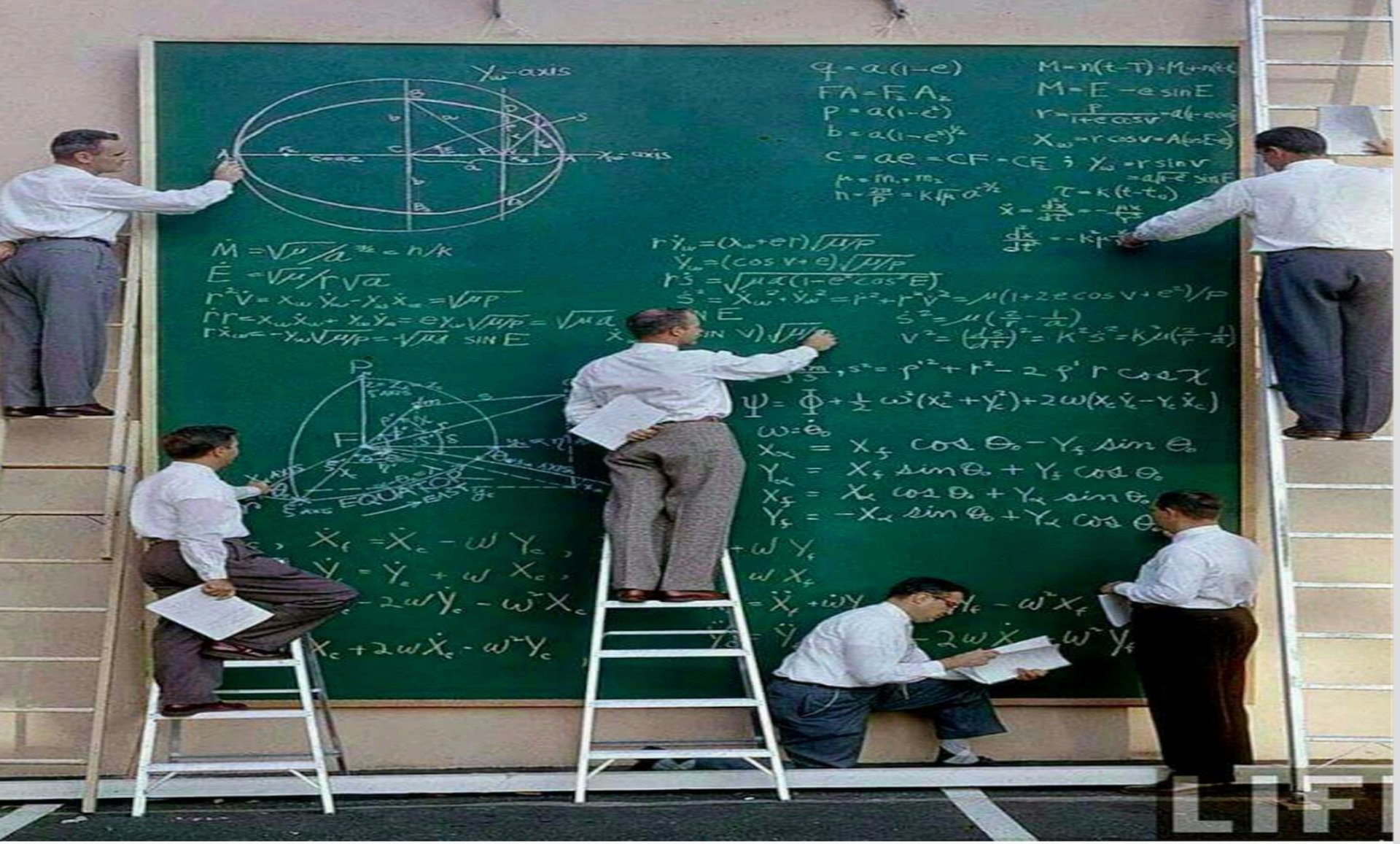
1st Industrial Revolution
Intelligence

TODAY

(Yet another) History of life as we know it…

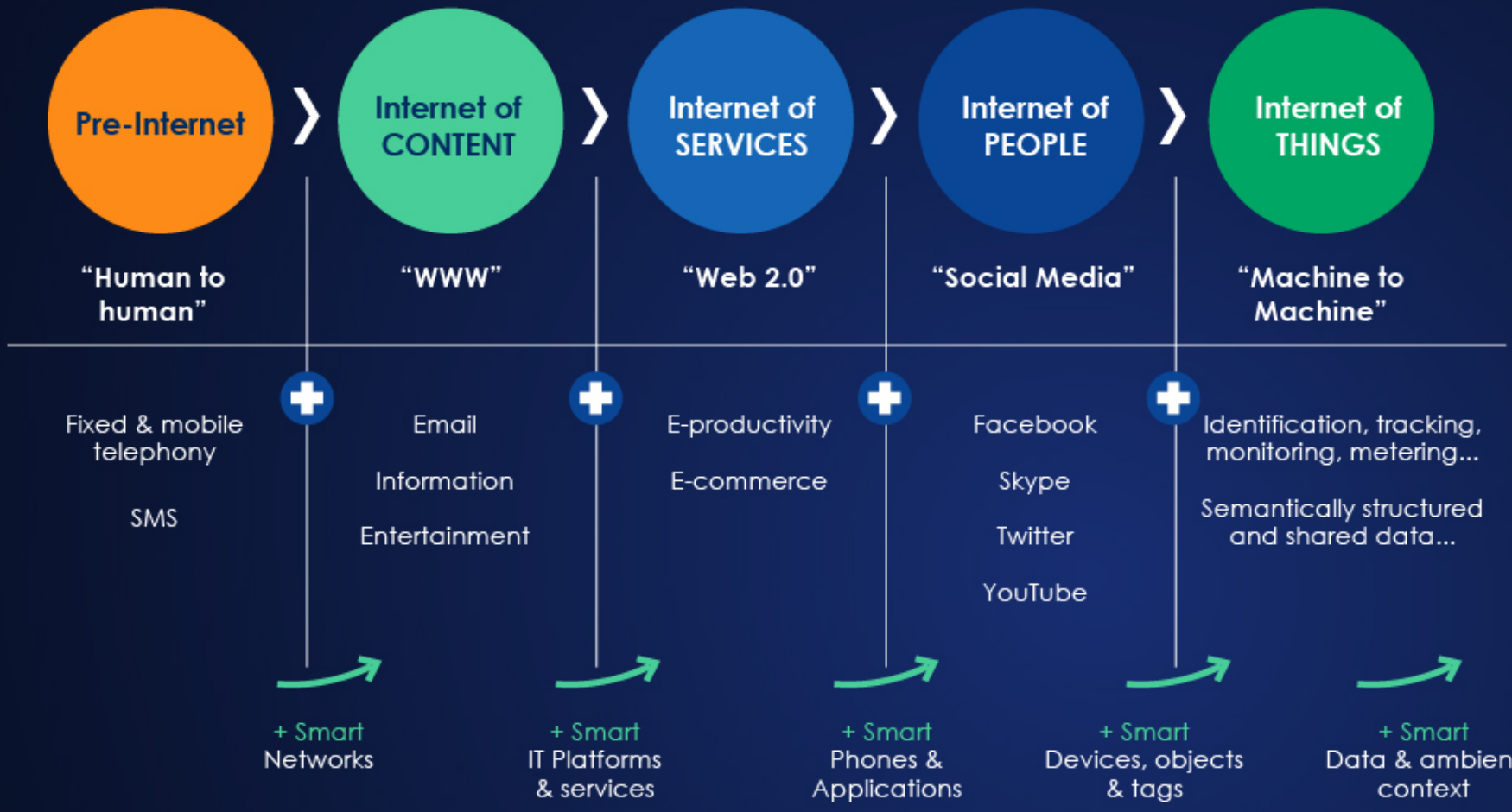


AUTOMATION



NASA scientists with their board of calculations, 1961

Evolution of Internet of things



Levels of Big Data Maturity

LEVEL 5
Data & Analytics as a Service

Operating as a "data service provider"

Self-serve data

Collaboration and sharing analytics across the enterprise

LEVEL 4
Enterprise Adoption

Leveraging use cases for multiple LOBs

Integrated metadata, quality, and governance across Big Data

Predictive insights integrated into business operations

LEVEL 3
Business Adoption

Leveraging discrete LOB use cases

Structured and unstructured analysis

Predictive analytics applied to Big Data

LEVEL 2
Technical Adoption

Using Big Data mostly for storage/transform

Usage primarily by IT

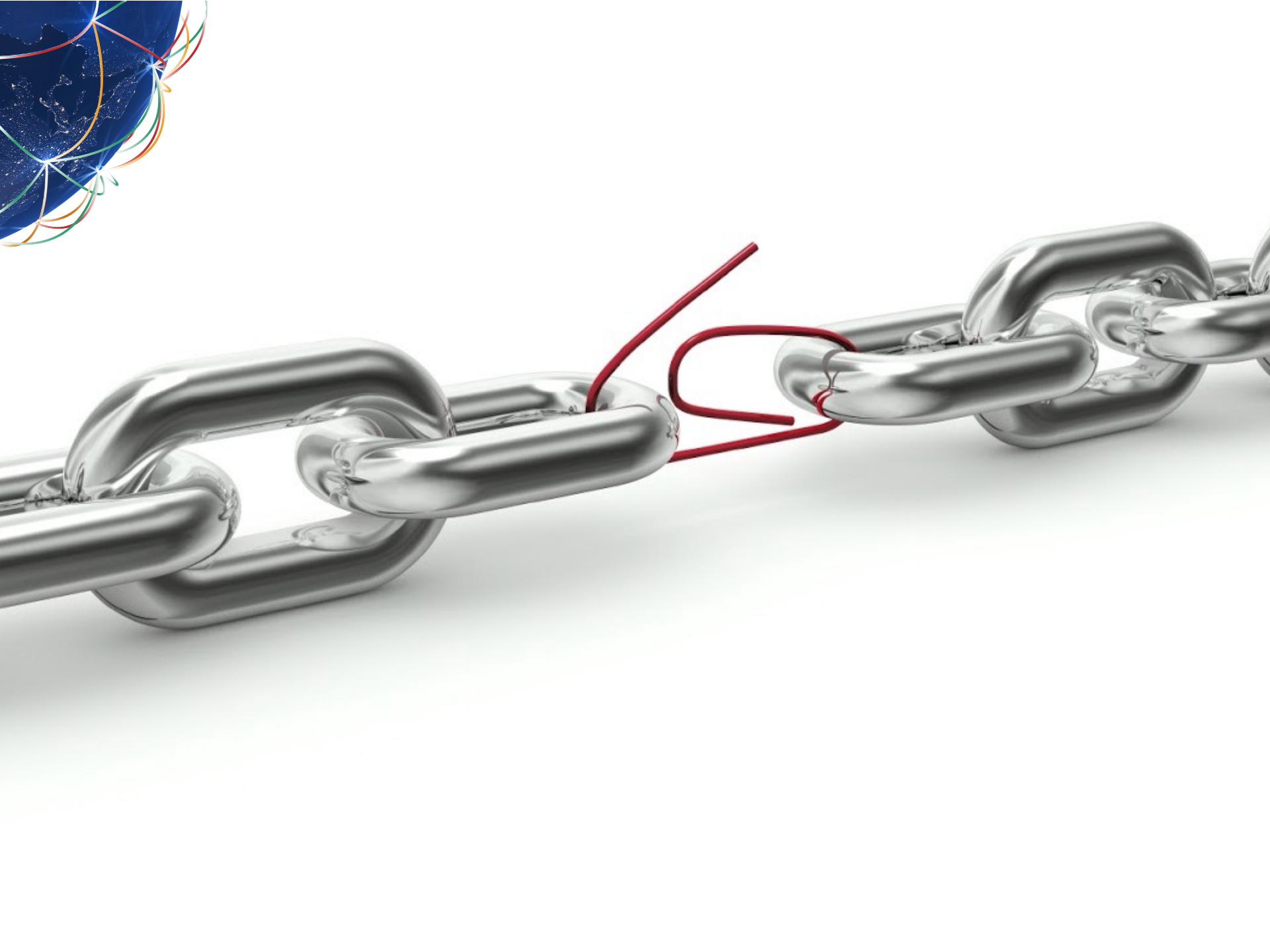
Some Big Data exploratory analytics

LEVEL 1
Infancy

Thinking about it

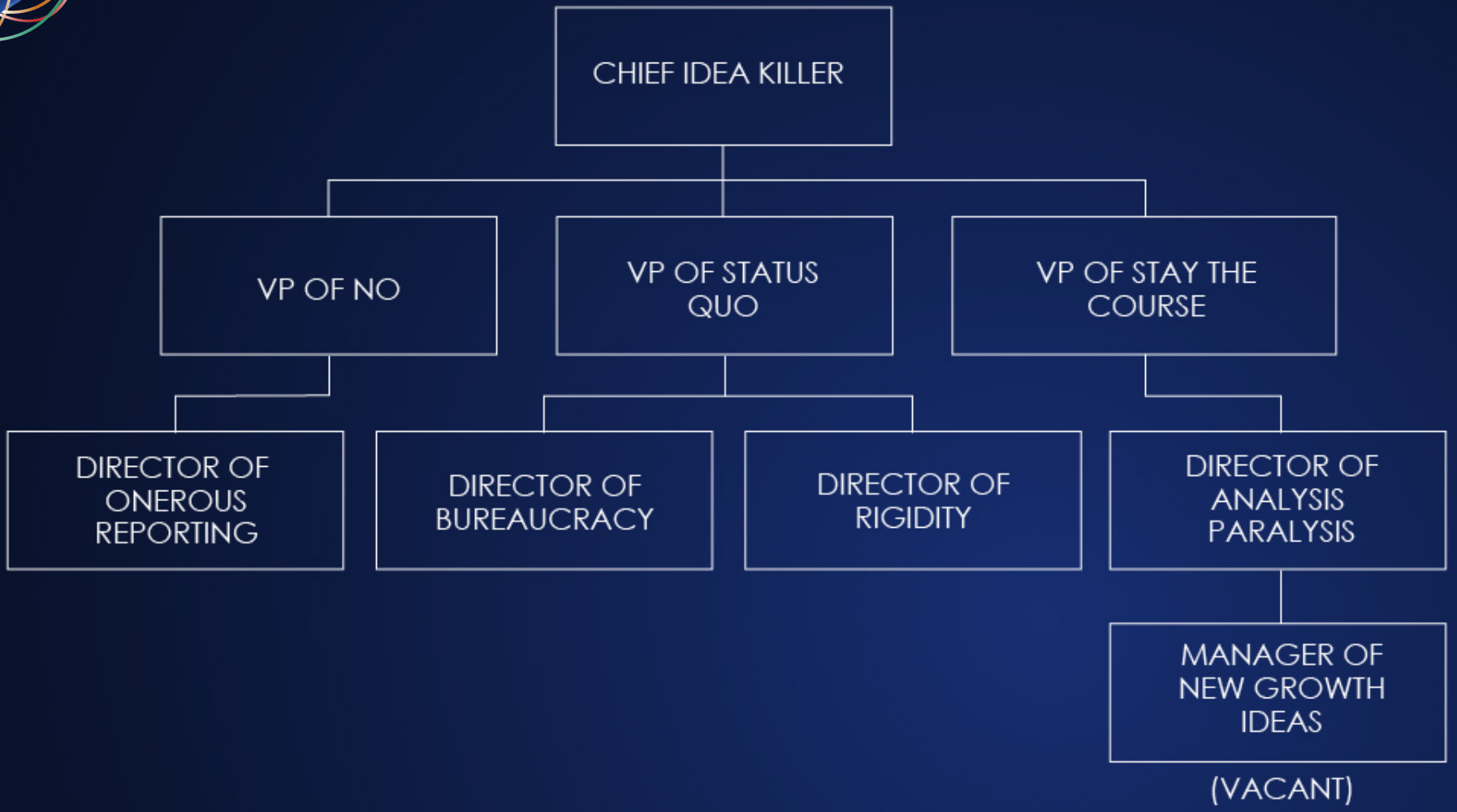
Initial Big Data environment in place

Proof-Of-Concept / Pilot



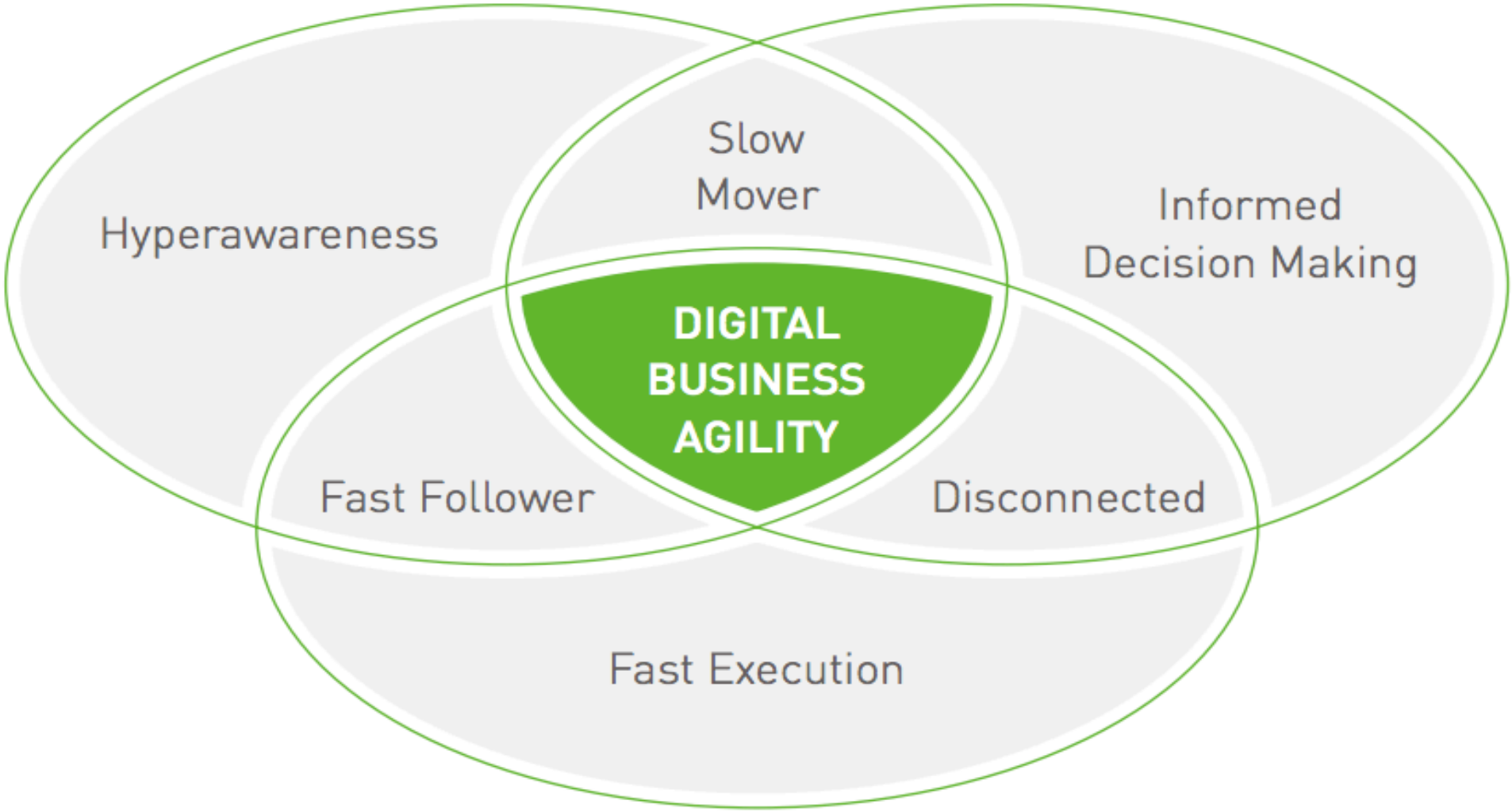
Digital Transformation Requirements


Supervisor
Engineer
Senior Officer
Specialist
Executive
Operation Manager
HOD
MD
CEO
COO
Worker
Hiring so many managers will not resolve your problems. It will just slow things down and confuse the only one person that is really doing the job.


CHIEF IDEA KILLER
VP OF NO
VP OF STATUS QUO
VP OF STAY THE COURSE
DIRECTOR OF ONEROUS REPORTING
DIRECTOR OF BUREAUCRACY
DIRECTOR OF RIGIDITY
DIRECTOR OF ANALYSIS PARALYSIS
MANAGER OF NEW GROWTH IDEAS
(VACANT)

NEW SKILLS FOR A NEW ERA

To become a digital leader, organizations must develop digital business agility, which combines hyperawareness, informed decision making, and fast execution:



HUMAN DECISION MAKING

1. **TRAP : OVER CONFIDENCE**
   This is when a decision maker places greater weight or value on what they know, and assumes that what they don't know isn't important

2. **TRAP : ANCHORING BIAS**
   This is tendancyto lock onto a single fact as a reference point for future decisions, even though that reference point may not have logical relevance to the decision at hand

3. **TRAP : FRAMING EFFECT**
   This is a bias in which a person's decision is influenced by how the decision is presented. For example humans avoid risk when a positive frame is presented but seek risks when a negative frame is presented

4. **TRAP : RISK AVERSION**
   This is the result of people's preference for certainty over uncertainity, and for minimizing the magnitude of the worst possible outcomes to which they are exposed

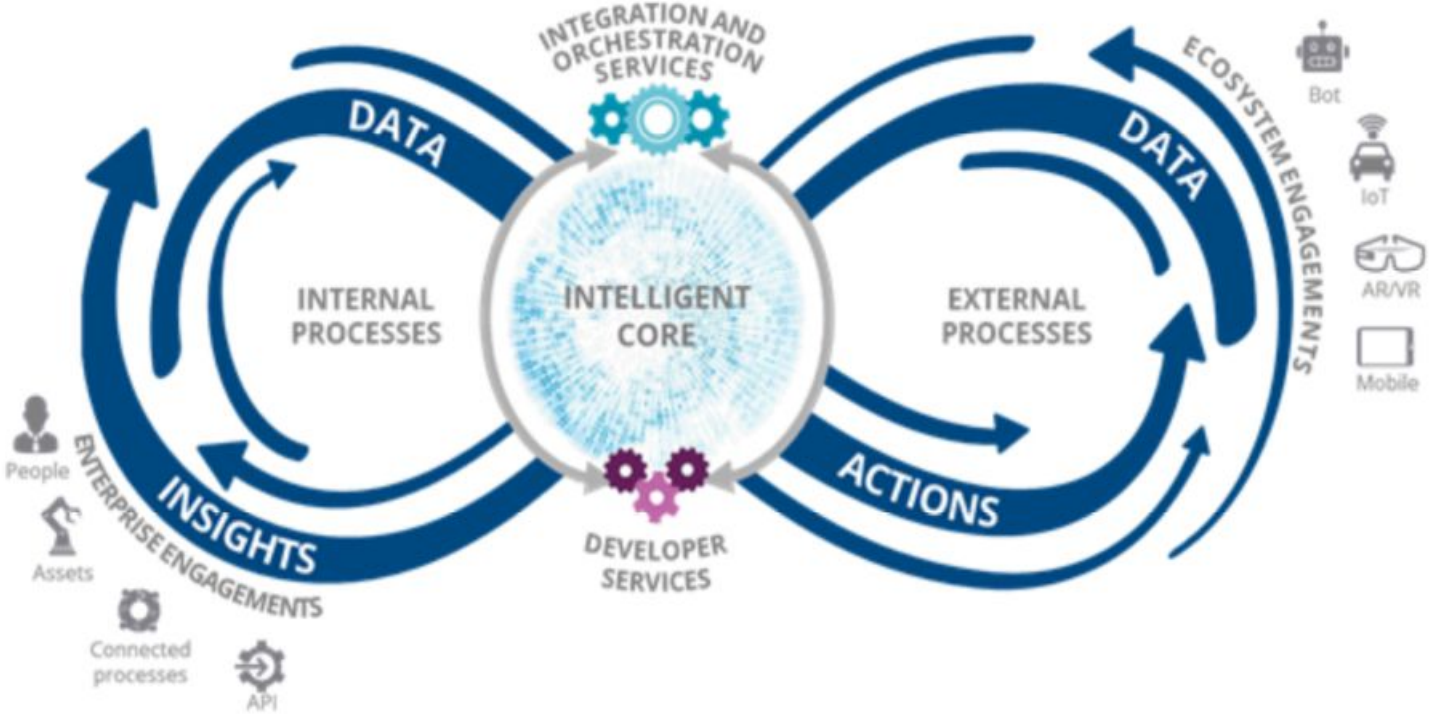
5. **TRAP : SUNK COSTS**
   This is are retrospective costs that have already been incurred and cannot be recovered. Consequently, sunk costs should not factor into going foward decisions, and should be ignored as if they never happened

6. **TRAP : ENDOWMENT EFFECT**
   This is the hypothesis that people ascribe more value to things merely because they own them. We over-value what we have which leads to unrealistic expectations on price terms

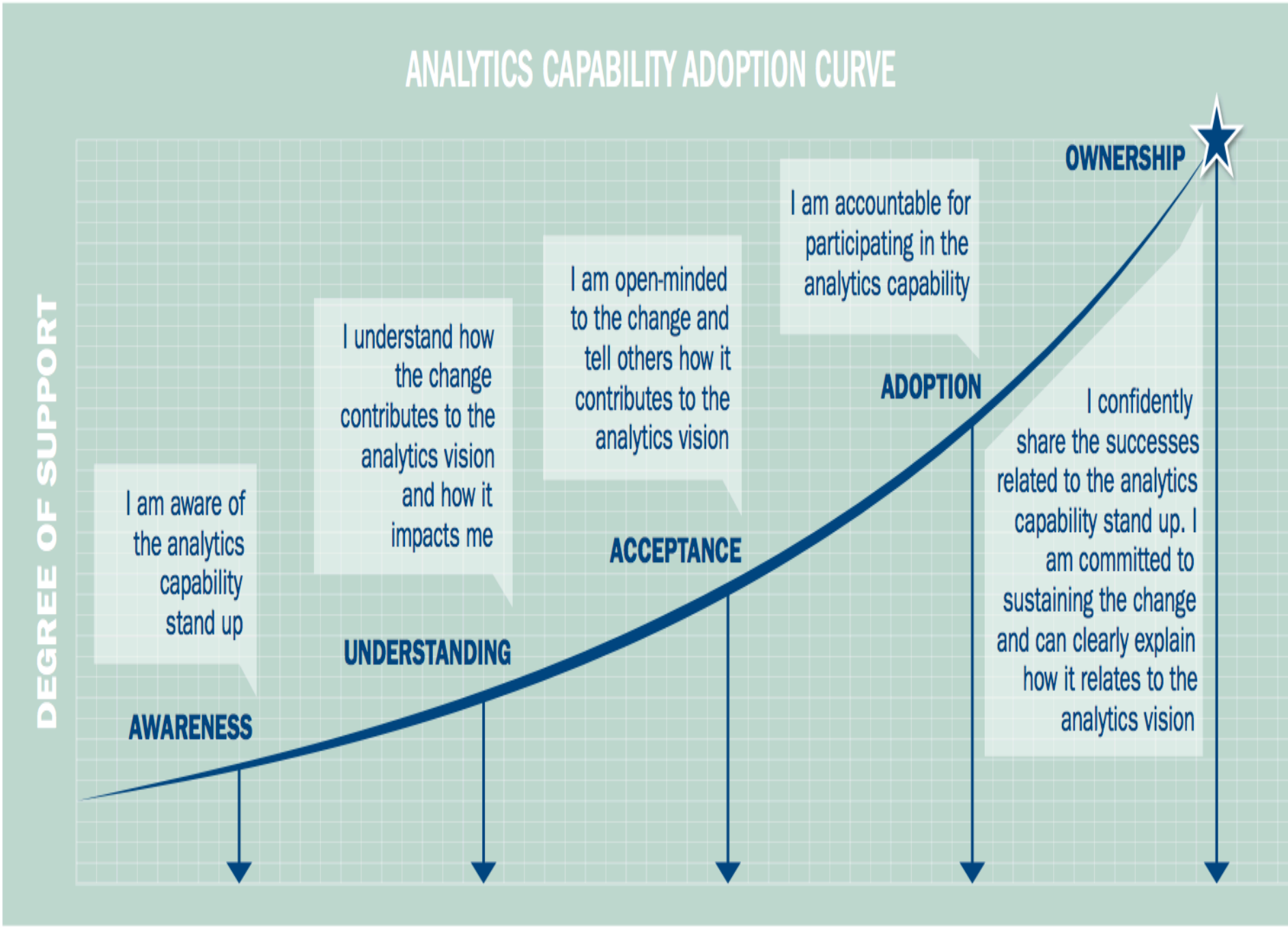
7. **TRAP : CONFIRMATION BIAS**
   This is the tendency to interpret evidence as confrimation of one's existing beliefs of theories. Confirmation Biases Impact how people gather, interpret and recall information

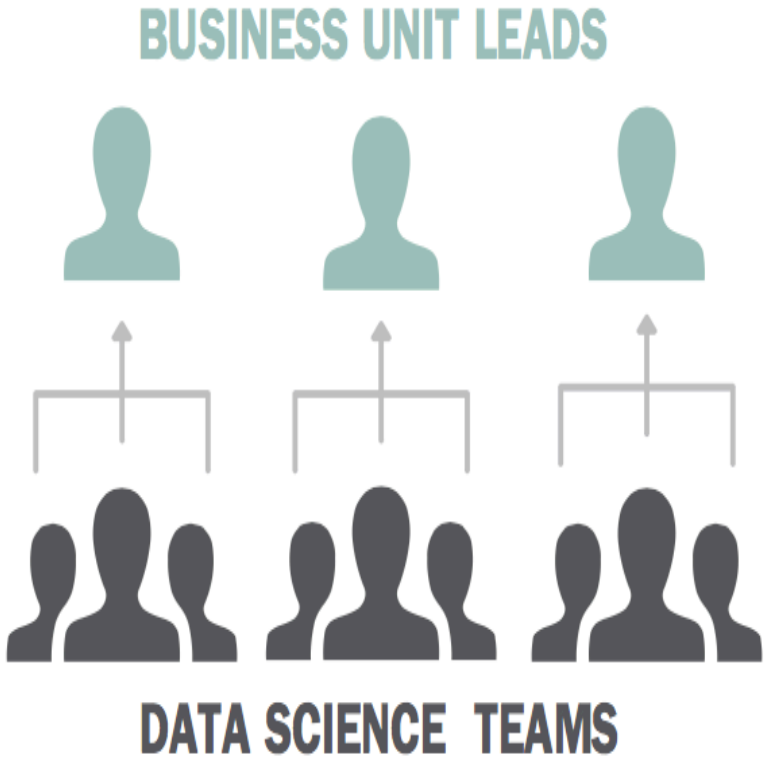
FIGURE 2

The Digital Transformation Platform



Source: IDC, 2018


ANALYTICS CAPABILITY ADOPTION CURVE
DEGREE OF SUPPORT
AWARENESS
I am aware of the analytics capability stand up
UNDERSTANDING
I understand how the change contributes to the analytics vision and how it impacts me
ACCEPTANCE
I am open-minded to the change and tell others how it contributes to the analytics vision
ADOPTION
I am accountable for participating in the analytics capability
OWNERSHIP
I confidently share the successes related to the analytics capability stand up. I am committed to sustaining the change and can clearly explain how it relates to the analytics vision



Data science teams are fully embedded in business units and report to individual business unit leaders.

Data science teams are overseen by a chief data scientist and forward deploy to business units.


responsibility
trust
morality
behaviour
Business Ethics
reliability
principle
choice
relationship

Thank You