

# The Cognitive Enterprise

*- Perspectives for the Industry*

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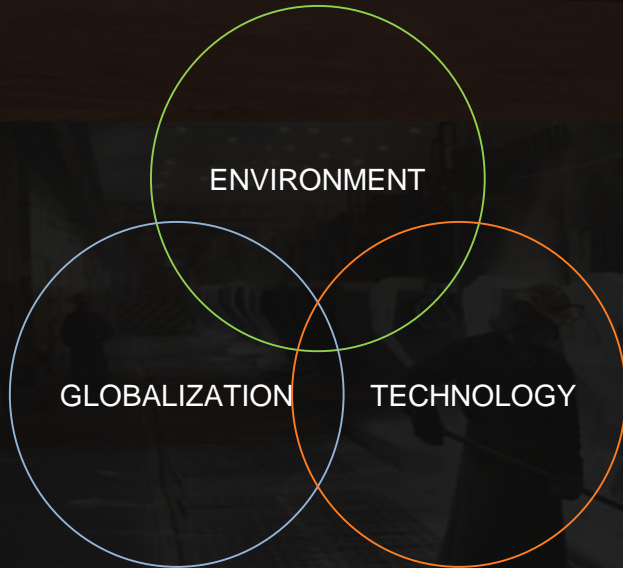
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# Disruptive environmental forces are driving seismic shifts within the Industry

*"We're in the middle of three Climate Changes, not Just one. The world is moving from being an interconnected one, to being interdependent, and it is the most adaptive that survive"* - Thomas Friedman, Business Commentator

## The Change



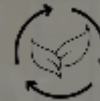
Organizations  
need adaptive  
ecosystem-  
coalitions

## The Imperatives



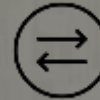
Increase  
Customer  
Centricity

**Strengthen  
Core**



Leverage  
Sustainability  
Trends

**Invest with  
Future Focus**



Grow through  
Substitution

**Focus on  
Profitability**



Portfolio and  
assets  
optimization

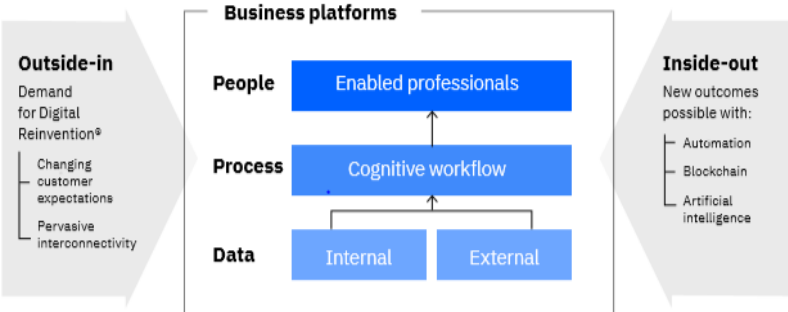
The digital experimentation of the recent past decade has set the stage for deeper transformation at-scale

**CHAPTER 1**  
“Outside-in”

**CHAPTER 2**  
“Inside-out”

<b>Innovation</b>	Consumer-driven Additive to core business	Enterprise-driven Transformative of mission-critical
<b>New ways of working</b>	Incubated in labs, “digital islands”	Transformed enterprise-wide
<b>Digital / exponential technologies</b>	Inspire broad experimentation	Embed in the business, with focus and scale
<b>Legacy process &amp; infrastructure</b>	Supportive of innovation – but rate-limiting	Modernized and responsive to future need
<b>Data leverage</b>	20% structured, visible, public	80% “behind the firewall”
<b>Definition of done</b>	Pilots, POCs	In production
<b>Advantage</b>	Pure plays	End-to-end integration

A platform-centric business model



# VIDEO-1

# We call this holistically transformed organization ... the Cognitive Enterprise

Culture of agile innovation

Ecosystem of business platforms

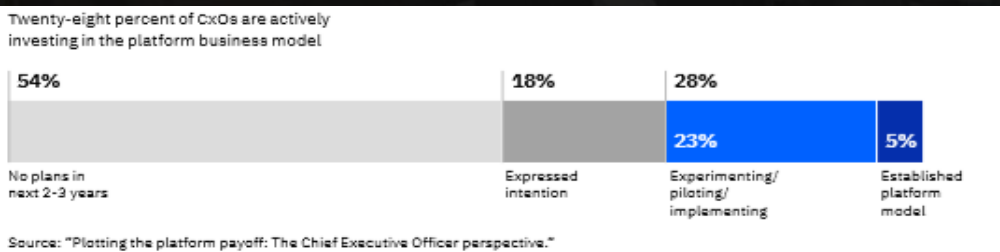
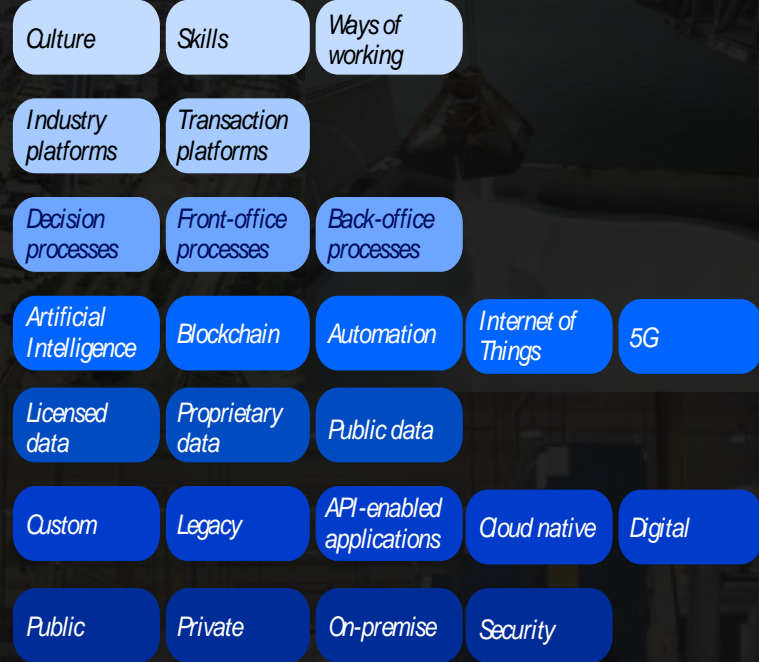
Cognitive-enabled enterprise workflows

Exponential technologies

Fueled by data

Next-generation applications

Secure multicloud infrastructure



## Key success factors

**1.**

Create platforms to unleash Digital Darwinism

**2.**

Leverage the incumbent advantage in data

**3.**

Architect your business for change

**4.**

Redesign company workflows around AI

**5.**

Get agile, change fast and build things

**6.**

Reinvent your workforce to ignite talent

**7.**

Win with trust and security

# VIDEO-2





# 1

## Create platforms to unleash Digital Darwinism

- Strategic clarity
- Ecosystem expansion potential
- Accelerative approaches

## Tradelens

**Problem:** Inconsistent information across organizational boundaries and “blind spots” throughout the supply chain hinder the efficient flow of goods.

**Solution:** Use IBM Blockchain to create a Global Logistics Platform that provides instant, secure access to end-to-end supply chain information; single source of the truth.

**+15% total trade volume**



## CEMEX built a platform to provide superior customer experience

IBM helped CEMEX revolutionize the way they conduct commerce with their consumers. A digital platform enabled CEMEX to connect with large contractors and individual consumers on a personal level, delivering the best product to an entire market of customers.

# 2

## Leverage the incumbent advantage in data

- Curated for platform purpose
- Bias avoidance
- Data ownership



### Yara

**Challenge:** To feed a growing global population sustainably, farmers must increase food production on existing farmland to avoid deforestation

**Solution:** Yara's vast trove of data unlocked with IBM AI and analytics to build a digital farming platform, providing holistic digital services and instant agronomic advice



### JFE Steel Corp

**Challenge:** To keep production schedules moving and workers safe, detecting and fixing equipment failures is key.

**Solution:** AI capabilities mining vast pools of unstructured Japanese text creates safer, more efficient plants, helping technicians diagnose, fix and prevent failures



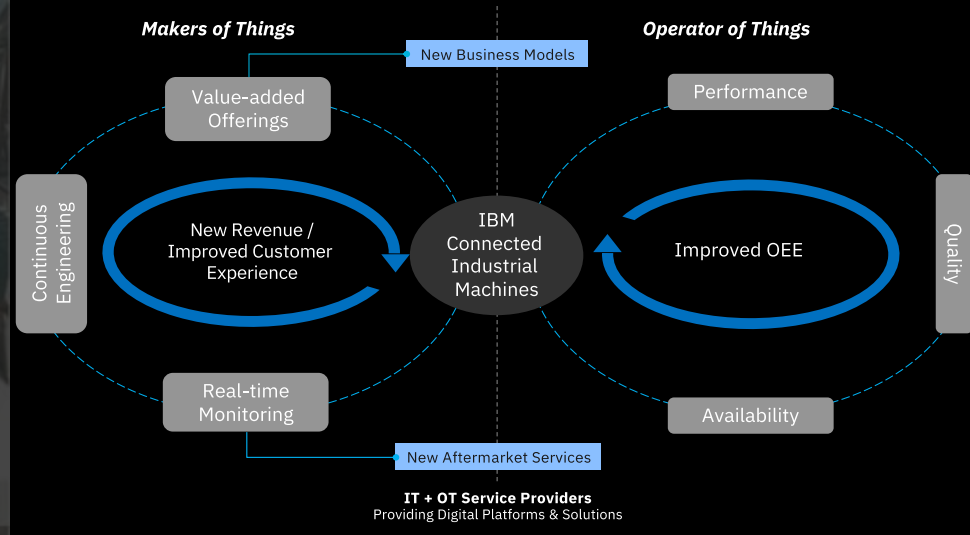
### Substantial

Reduction in Mean Time to Repair

# 3

## Architect your business for change

- Target operating model
- Enabling architectures
- Open to ecosystem



# 10%

Productivity Increase in Mining Operations

## Sandvik Mining

Built a platform to enable Sandvik to provide high value aftermarket services to their clients.

The solution results in an increase of about 10% in productivity, increase field workforce efficiency & reduce repair costs, improve customer satisfaction & increase retention while increasing equipment lifecycle revenue for Sandvik.



# 6

## Reinvent your workforce to ignite talent

- New skills & continuous learning
- AI-enabled skills development
- Agile teaming



75%

Reduction in searching time across multiple data sources in exploration

### Skill Transfer using Watson

Woodside Engineers have the knowledge of 1000

IBM Watson

IBM developed an easily accessible body of knowledge that all engineers can access, effectively placing the combined history and knowledge of all engineers into the hands of every single engineer.

**Accelerates** expertise by giving staff unlimited access to 30 years of tribal knowledge

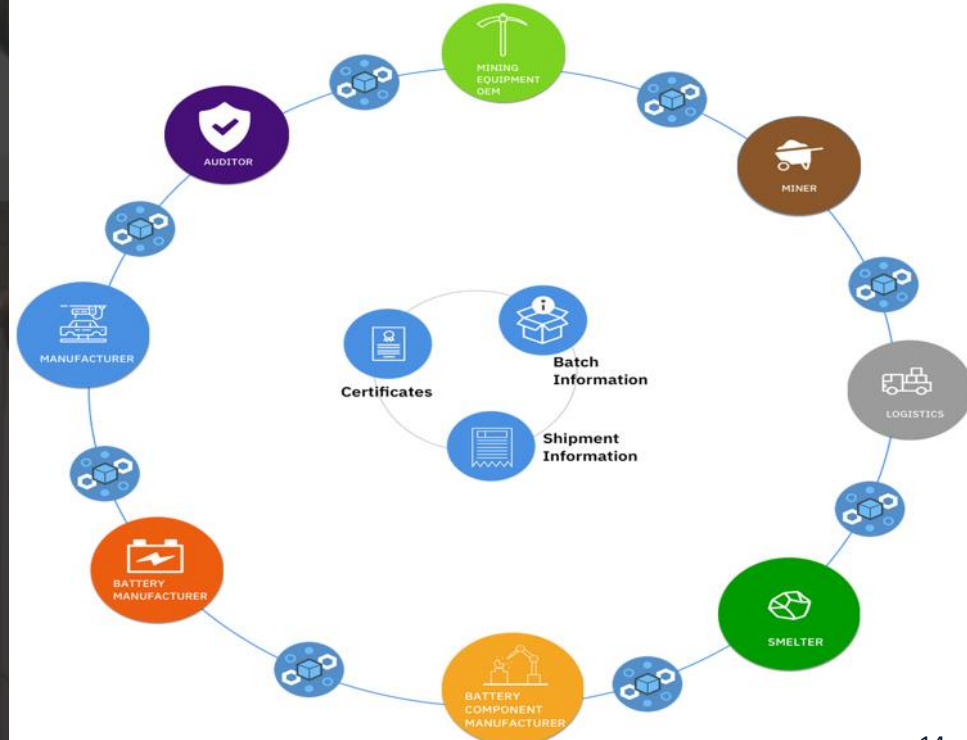
# 7

## Win with trust and security

- Bias-free automation and algorithms
- Protected workflows and data
- Expertise with integrity and values

## IBM and Industry Partners

Working together as part of a larger consortium across the mining and metals industry leveraging blockchain technology to ensure a secure and trusted environment for business transactions .



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