Digital Transformation How Do we get there

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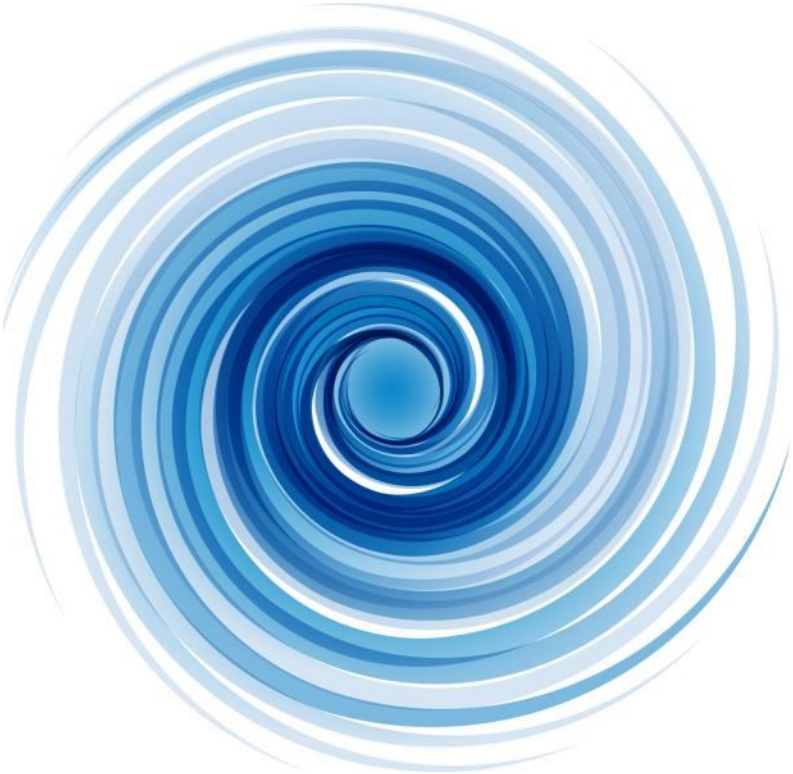
Digital Disruption Is Impacting All Industries

What Is Digital Disruption?

The effect of **digital business models** and **technologies** on value proposition and market position

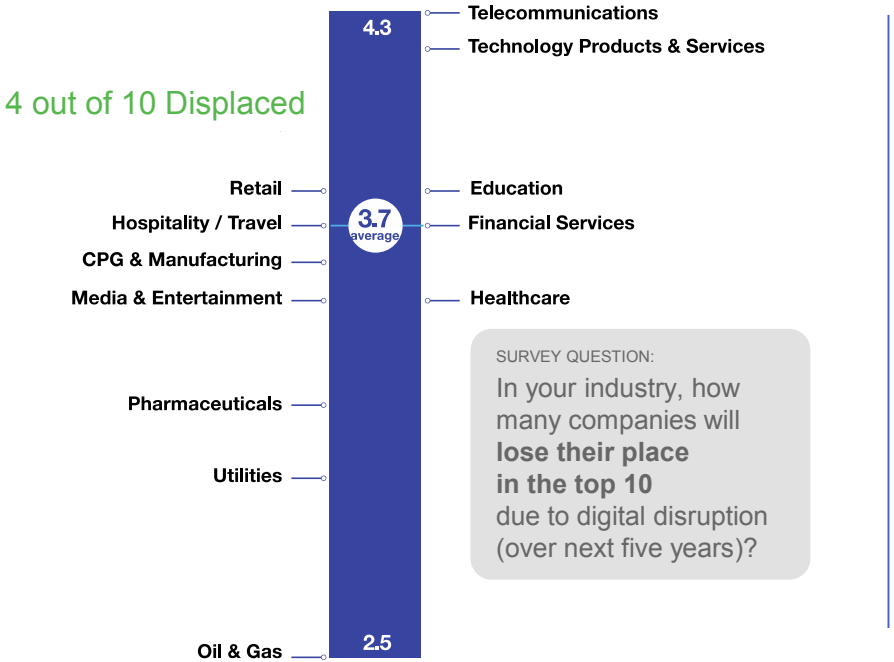
Distinguished from traditional competitive dynamics by **velocity of change** and **high stakes**

Like a vortex, digital disruption **pulls everything toward the digital center**, where everything that can be digitized, is



Source: *Digital Vortex*, Global Center for Digital Business Transformation 2015

Seismic Changes Will Displace Nearly 40% of Top Incumbents, and It Will Happen Soon



Expected time to disruption: 3 years

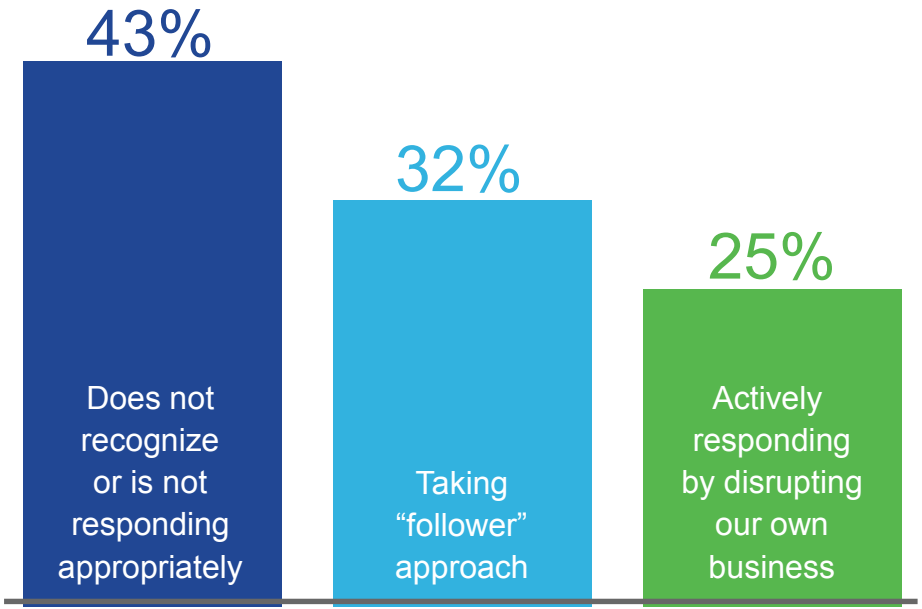
Disruption = Substantial change in market share among incumbents

Source: *Digital Vortex*, Global Center for Digital Business Transformation 2015

However, Most Companies Are Not Responding to the Threat

45%

of respondents say digital disruption is "not a board-level concern"



SURVEY QUESTION:
What is the attitude of your company's leadership toward digital disruption?

Source: *Digital Vortex*, Global Center for Digital Business Transformation 2015

Even with the Risk of Market Turbulence, Most See Digital Disruption as a Force for Good

Digital disruption…

…is a form of progress (75%)

…improves value for customers (72%)

…empowers individuals (66%)

…is good for society (63%)

…improves quality of life (63%)

Percentage of respondents who “somewhat” or “strongly” agree with each of the statements

Source: *Digital Vortex*, Global Center for Digital Business Transformation 2015

What Does It Mean To Become Digital?

The ‘Digital Business’ Defined

Digital businesses create new value by **enabling** efficient business processes, **differentiating** the customer experience, and **defining** new categories of value.

Digital businesses drive **sustainable differentiation** through **continuous innovation** of processes and offerings.

Digital businesses are **data-driven** and **outcome-based.**

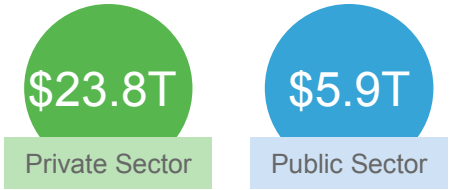
Digitization Is Driving an Increase in Value at Stake

Digital adoption
is accelerating:
95% of Fortune 1000 expects to undertake an IoT project by 2017 (The Economist)

Digital technologies
are maturing:
Wearables, connected vehicles among use cases no longer "ahead of their time"

Digital Value at Stake

The potential **bottom-line value** (higher revenue and lower costs) that can be **created** or that will **migrate** among organizations and industries based on the ability to harness digital capabilities over the next decade (2015-2024)



Digital business models
are changing the nature of competition

"Combinatorial disruption" recombines traditional means of delivering customer value. Apple, Uber, Tesla, and others have used this approach to launch competitive threats across industry lines.

Digital value
increasingly comes from consumers, not just B2B

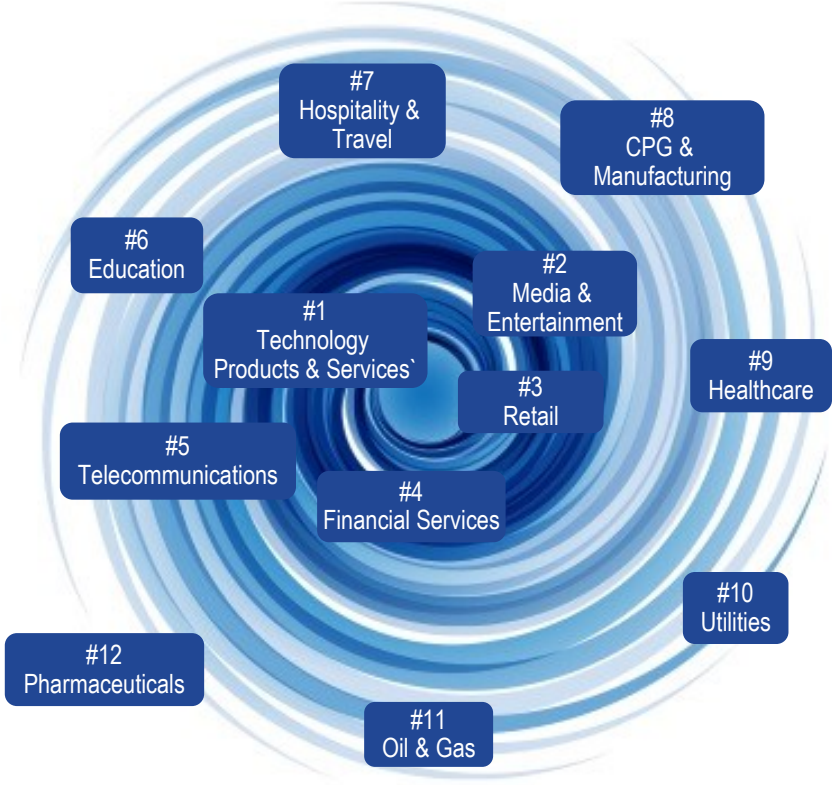
Examples: telehealth, pay-as-you-drive insurance, wearables

Source: Cisco, 2015

Digital Disruption by Industry

In the Digital Vortex All Industries Are Vulnerable to Disruption

Ranking of industries according to vulnerability to disruption in the next five years.



Industries near the center are well on their way to disruption.

Source: *Digital Vortex*, Global Center for Digital Business Transformation 2015

This “Combinatorial Disruption” Is Already Blurring the Lines Between Industries

	Disruptive Offering	Redefined Industries
	Pay in-store or online using mobile phone or watch.	Financial services + technology + retail + CPG (Is Apple a watch company?)
coursera	Open interactive education, delivered entirely online	Education + media & entertainment + technology
houzz	Social home décor site making major push into e-commerce	Retail + media & entertainment
proteus DIGITAL HEALTH	Connected pill is an ingestible sensor that will transform pharmaceuticals	Pharmaceuticals + technology
TESLA SolarCity	Residential solar and car battery storage technology combine to enable consumers to go “off grid”	Utilities + manufacturing + technology

Source: *Digital Vortex*, Global Center for Digital Business Transformation 2015

Combinatorial Disruption: Tesla Impacting Multiple Industries

Cost Value

Lower fuel costs
Lower electricity costs
Free upgrades

Experience Value

Innovative capabilities (self-driving)
Customization
Direct sales model
Concierge service

Platform Value

Software platform (apps)
Modular design
Supercharging network

Industries Being Unbundled

Automotive Manufacturing | Oil & Gas | Transportation | Electric Utilities | Mining | Technology

Source: *Digital Vortex*, Global Center for Digital Business Transformation 2015

Keys to Success

To Succeed, the Digitally Transformed Organization Requires 3 Basic Attributes

Hyper-Aware

Sense the location, status, and context of assets, users

Monitor customer sentiment and behaviors in real time

Identify market and competitive changes

Predictive

Anticipate market transitions

Optimize performance of assets, operations

Foresee and proactively address security threats

Agile

Achieve differentiation by responding more quickly

Foster disruptive innovation, build “platforms” for sustainable advantage

Respond to rapidly evolving threats

Source: Cisco, 2014

Digital Transformation Depends Upon the Ability To Turn Data into Insights

Analytics
will drive nearly
40%
of Digital Value at Stake

To progress from data to insight requires **analytics across:**

- People
- Process
- Data
- Things

Analytics at the "edge"
[at or near the location where the data is generated]
can be particularly valuable where there are latency or bandwidth constraints

Source: *Attaining IoT Value: How To Move from Connecting Things to Capturing Insights*, Cisco 2014

Industry Transformation Perspectives

Financial Services

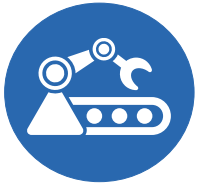
Retail

Oil & Gas

Manufacturing

Public Sector

Digital Transformation Will Be a Major Factor Across Industries …



Manufacturing
$6.4T

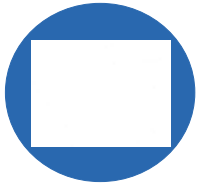
Financial Services
$3.1T

Retail
$2.8T

Service Provider
$2.0T

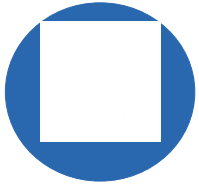
Healthcare
$1.4T

Oil & Gas
$1.1T

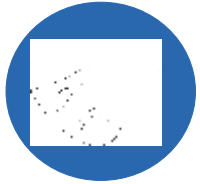


Administrative / Waste Management
$899B

Transportation
$845B



Construction / EPCM
$779B



Arts / Ent. / Recreation
$706B

Top 10 industries for Digital Value at Stake, 2015-2024

Source: Cisco, 2015

Top Private Sector Use Cases by Industry

Manufacturing

1. Predictive Maintenance (Analytics)
2. Quality & Defect Controls Automation
3. Energy Management
4. Connected Products Maintenance
5. Remote Maintenance
6. Visual Factory
7. Assembly Line Changeovers

Healthcare

1. Patient/Medication Safety
2. Predictive Equipment Maintenance
3. Big Data Analytics
4. Administrative Process Automation
5. Physician Performance Analytics
6. Consumables Tracking
7. Healthcare Claims Management

Financial Services

1. Omnichannel Capabilities
2. Mortgage Advisor / Video-based Experts
3. Wealth Management — Asset Transfer
4. Mobile Banking & Payments
5. Self-serve Segment / Direct Relationship
6. Virtualized Delivery Model
7. Claims Management

Oil & Gas

1. Recovery Efficiency
2. Lifting-Process Automation
3. Remote Monitoring
4. Drilling Optimization
5. Project Planning
6. Oil-spillage Control
7. Spares / Inventory Management

Retail

1. In-store Analytics
2. Remote Expert
3. Theft / Physical Security
4. Endless Aisles
5. Checkout Optimizer
6. Smart Lockers
7. Out-of-stock Optimizer

Transportation

1. Predictive Maintenance
2. Analytics-driven Fuel Efficiencies
3. Driver Efficiency
4. Connected Train
5. Smart Stations
6. Below-Wing Operations
7. Connected Track & Trackside

Telecom SP

1. SP as an IOT Enabler
2. Network Transformation
3. Personalized Service (Analytics)
4. Churn Control
5. Intelligent Marketing
6. Safety and Security
7. Home Network Remote Access

“Horizontals”

1. Mobile Collaboration
2. Digital Advertising
3. Cyber Security
4. Smart Grid
5. CoE for Support Functions
6. Supply Chain
7. Connected Workplace
8. Telecommuting
9. SME Virtualization
10. Payments

Source: Cisco, 2015

Public Sector

In Public Sector, Going Digital Helps Meet New Citizen Demands

There is a gap between what **citizens expect** and what governments deliver

Digitization helps public sector organizations:

Increase **efficiency**

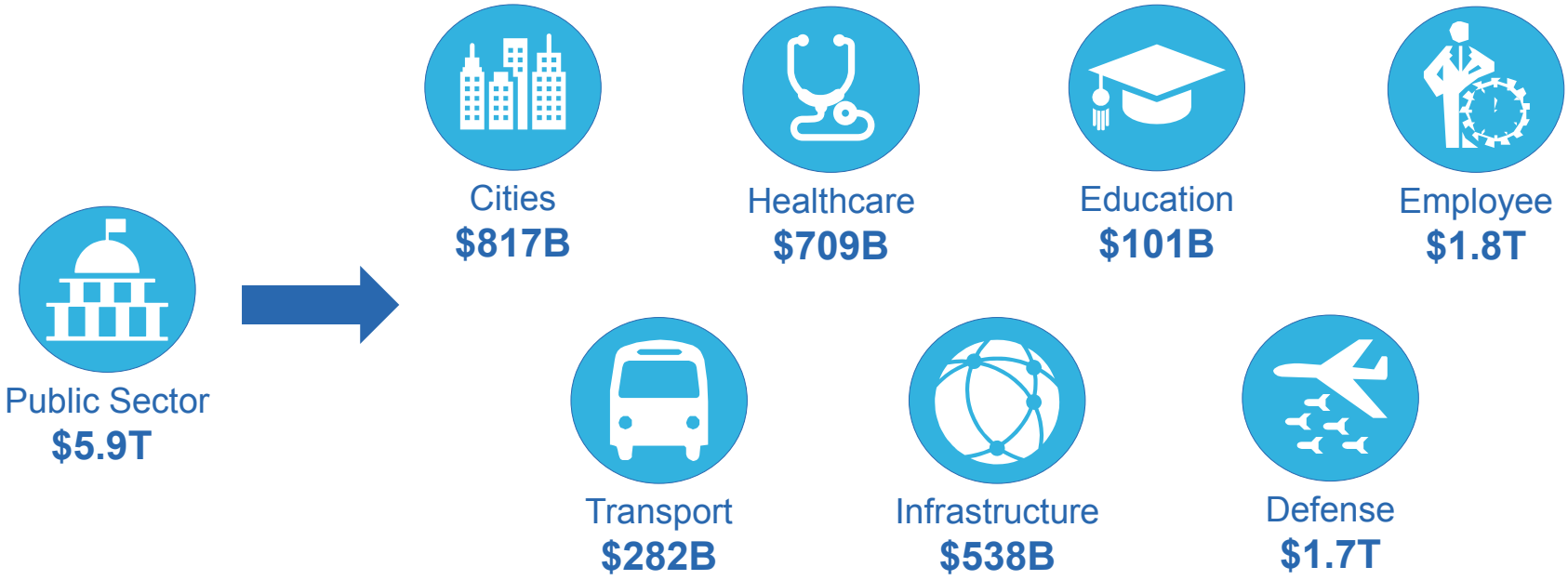
Reduce **costs**

Save **energy**

Improve **lives** of citizens

Digitization enables government services that are **hyperaware**, **predictive**, and **agile**.

… the Public Sector …



Digital Value at Stake, 2015-2024

Source: Cisco, 2015

Areas of Focus for Public Sector Digital Transformation

Build a powerful **network foundation** to expand the art of the possible

Data analytics magnify impact of digital technologies

Digitization is a catalyst for breaking down **organizational silos**

Digital solutions must address **people/process**, not just data/things


CISCO