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# Digital Supply Chain in a connected world, and why you should care

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USC Featured Speaker Presentation  
Dave Padmos



# Why should you care about Digital?

## Because it has already changed everything...



### 18<sup>th</sup> century

First Industrial Revolution

#### Mechanical

Technology was steam and water powering the first factories

### 19<sup>th</sup> century

Second Industrial Revolution

#### Electrical

Electricity made possible the division of labor and mass production

### 20<sup>th</sup> century

Third Industrial Revolution

#### Automated

IT enabled programmable work and an end to reliance on manual labor



### Today

Fourth Industrial Revolution

#### Connected



Cyber-physical systems, powered by IoT and fueled by data, create a fully interconnected and digital world

#### Unprecedented pace

 **35** days

For a new technology to reach a critical mass of 50m users

#### Extreme experiences

 **87** %

Percentage of customers looking for a more seamless experience

#### Connected chaos

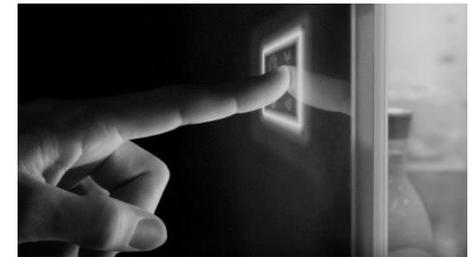
 **50** bn

Internet connected "things" by 2020\*\* including sensors, RFID chips etc.

#### Digital natives

 **75** %

By 2025, the makeup of the workforce is projected to be majority digital native



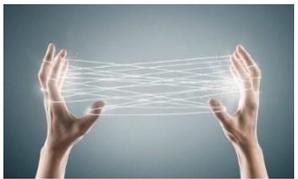
# Why does this affect you?

## You adapt, get left behind, or worse...



### Threats

**2 Bn** Jobs will be displaced by 2030 as a result of technology advances



**20** Years to catch up with the cyber-security skills shortage

**29%** Unilever's CMO's estimated rate of click fraud, prompting a claim that the industry was wasting \$8-10bn per year on fake clicks

**4%** Of Global Group Turnover as maximum fine for a data privacy breach in the European Union



**52%** of the Fortune 500 since 2000 has been demolished because of Digital disruption  
- Constellation Research

At the current run rate, **75%** of companies in the S&P 500 will be new entrants by 2027

**25-50%** Typical cost savings from RPA enabling automation



More than **10%** of work will be sourced in the shared economy by 2019

By 2020, there will be **26** smart objects for every human being on Earth

**35%** New P&G products come from outside the company via it's open Innovation approach



**5 days** For a drone capturing and analyzing high definition video of off shore oil rigs to capture more data than a traditional "rope lift" team can capture in 8 weeks

**80%** believe the digital supply chain will be the predominate model within 5 years...  
**16%** say it is today

### Opportunities

# How should you think about Digital?

## To transform you must embrace the total Digital experience...



Cyber-physical systems

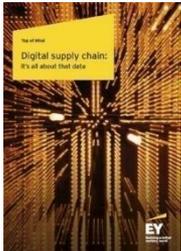


Powered by IoT:



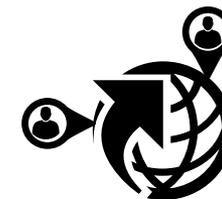
# Connected

fueled by data



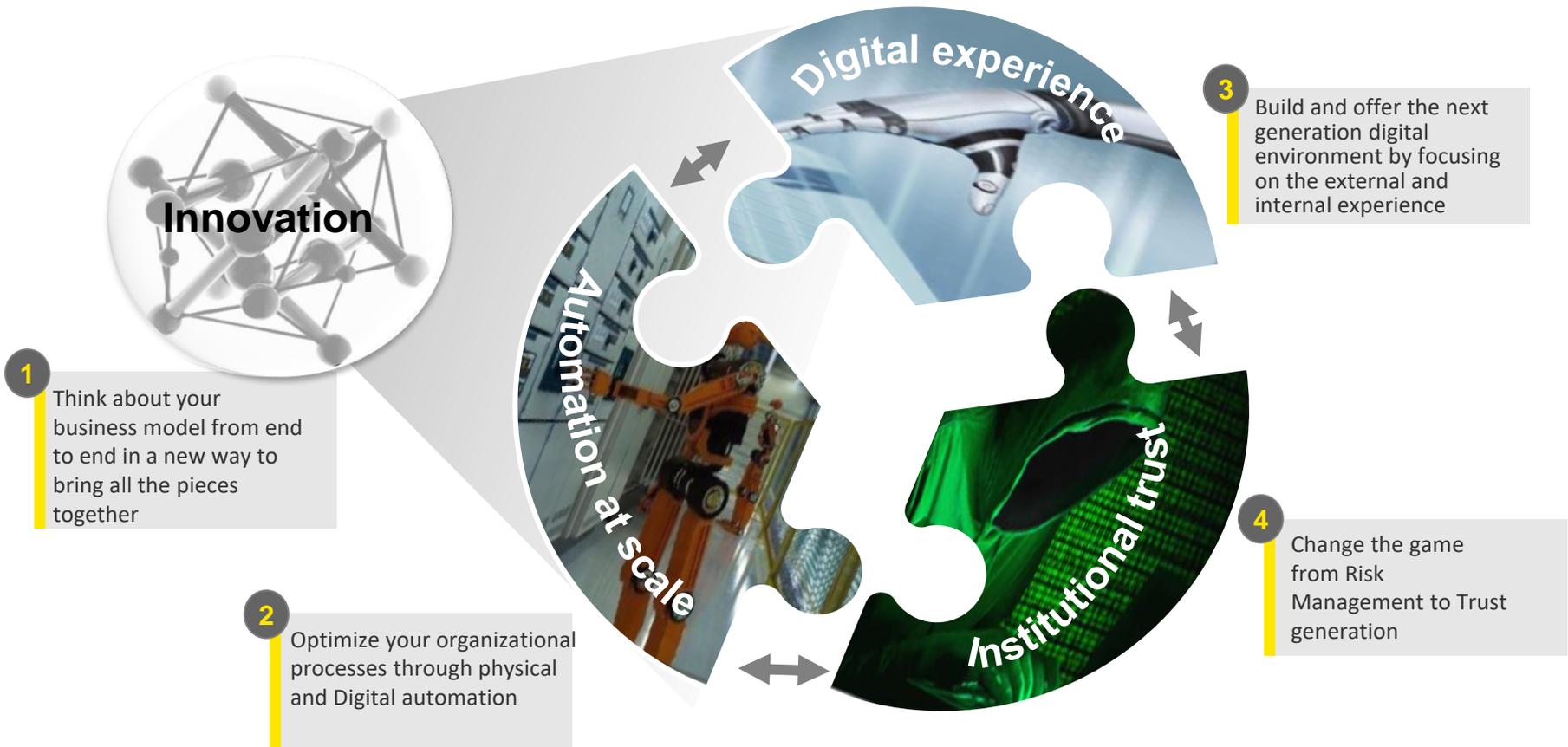
Cyber-physical systems, powered by IoT and fueled by data, create a fully interconnected and digital world

Fully interconnected and digital world



“Its not the most intelligent or the strongest, but the most adaptable that survive ”

# Where must you focus your Digital thinking? Innovation, experience, trust and scale...



# Design a compelling and relevant Digital experience for customers and employees



Key questions:

1. Will it still be shopping if there are no shops?
2. Is the next evolution of big data, big judgment?
3. Why is the best digital strategy a human one?
4. How do you become a disruptor before you become disrupted?

As of 2015, millennials make up

**34%**

of the workforce, surpassing Gen X

**66%**

of consumers are likely to order from a company offering faster delivery

**50%**

of the total workforce will be contingent by 2020

Digital experience enablers:

- ▶ Personalization
- ▶ Customized 3D printing
- ▶ Intelligent tracking and updates
- ▶ Smart delivery and transportation
- ▶ Empathy and security

It's predicted that

**65%**

of today's students will be employed in jobs that don't exist yet

**1Bn**

digital transactions initiated from a single large e-tailer on cyber Monday



**87%**

of consumers prefer ordering from a company offering delivery transparency

With Millennials in the workforce:

- ▶ Intense competition for talent
- ▶ Non-traditional ways of earning a living are on the rise
- ▶ Increased demand for innovative work experiences

**1 in 5**

Jobs will disappear in the next five years

**81%**

of consumers are willing to pay for a better experience



**4 years**

for Airbnb to reach the same inventory level that Hilton Hotels built in 93 years

# How should you make a difference in the Digital Experience?



## What should be done

- ▶ Drive the experience transformation by **digitizing customer journeys** focusing on **personalization**
- ▶ Increase **speed and agility** by leveraging rapid prototyping, visualization and testing
- ▶ Harness **innovation and design**
- ▶ Rigorously design and **prioritize customer experience** investments
- ▶ Enable organizational change

“In this age of the customer, the only sustainable competitive advantage is knowledge and engagement with customers”



**97.8%**  
Customer retention rate



**37%**  
of primetime downstream  
internet bandwidth



**1.2M**  
hits on its AI mobile  
platform for personalized  
skin regimen since launch in  
late 2016

# Why is building Institutional Trust and Cyber-Security more important than before?



## Key questions

1. Can digital uncertainty be transformed into trust?
2. Is simple actually overly complex?
3. How can you build cyber security across the extended digital supply chain?
4. Can you protect your business by better protecting your customers' information?

**56%**

of organizations do not have a role or department focused on emerging technologies and their impact on information security

**4,149**

breaches reported during 2016, exposing over

**4.2Bn**

more records than the previous all-time high exposed in 2013

Best in class companies are

**29%**

more likely than others to have the ability to monitor and detect fraud



**36%**

of GISS respondents do not have a threat intelligence program

**37%**

of GISS respondents say that real time insight on cyber risk is not available

Drivers of new vulnerabilities :

- ▶ The speed of change
- ▶ A network of networks
- ▶ Ease of access
- ▶ Storage demands
- ▶ Bandwidth consumption

**70%**

of the most commonly used IoT devices contain vulnerabilities

# How do you turn Institutional Trust into sustainable differentiation?



## What should be done

- ▶ Understand the “risk boundary” of your supply chain ecosystem
- ▶ Stop reacting and start acting
- ▶ **Activate:** a foundational approach to improve your cybersecurity
- ▶ **Adapt:** a dynamic approach because organizations are constantly changing and cyber threats are evolving
- ▶ **Anticipate:** take a proactive approach to predict what is coming so you can be better prepared for the inevitable cyber attacks

"Trust is like blood pressure. It's silent, vital to good health, and if abused it can be deadly." --Frank Sonnenberg



**73,000**

Potentially unsanctioned products available on Amazon through third party vendors



**50%**

Market share from QNX in advanced automotive software



**\$209M**

in ransomware payments in Q1 2016

# How should you leverage Digital Automation to drive efficiencies of scale into your business?



Key questions

1. How can the digitalized, agile organization of the future still be rooted in human values?
2. What should you automate versus outsource?
3. Is your binary thinking heading in creative directions?
4. Is it better to automate the digital or physical supply chain?

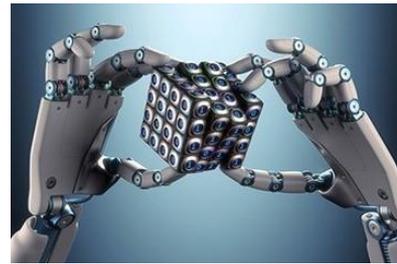
**45%**  
of the fastest-growing companies will have fewer employees than instances of smart machines by 2018

Robots could replace  
**1.7M**  
American truckers in the next decade

RPA considerations:

- ▶ Consistency, accuracy and reliability
- ▶ Compliance
- ▶ Right-sizing and right-shoring

**90%**  
of employees to be replaced by bots, Foxconn announced in Dec 2016



**4 to 6**  
Times faster processing speeds compared to human beings

**\$150Bn**  
Invested to robotize factories to make them dark, China announced in 2016

**60,000**  
projected US sales of self-driving trucks by 2025

**70%**  
of data entry costs cut through RPA

**\$5Bn+**  
potential market for Global RPA industry by 2020

# How can you place the right bets on automation technology?



## What should be done

- ▶ Align **technological aspirations** with the overall business strategy
- ▶ Look to technology investments as a **portfolio of investments**
- ▶ Make sure to **invest in people** with the right skills
- ▶ Invest in **“innovation labs”** to nurture and develop ideas
- ▶ **Pilot ideas** to test concepts in the “real world”
- ▶ Collaborate in the **“sharing economy”** to enable real scale

“You’re either the one that creates the automation or you’re getting automated.” – Tom Preston-Werner



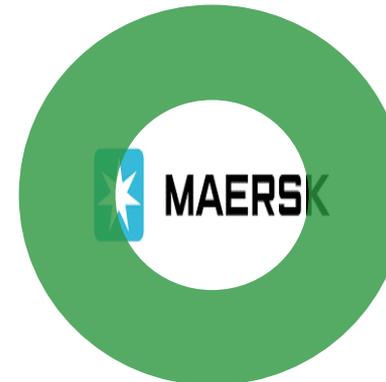
**100k**

Size of Amazon's robot army (doubled since December)



**50k**

cans of Beer delivered by Uber's autonomous truck



**10M**

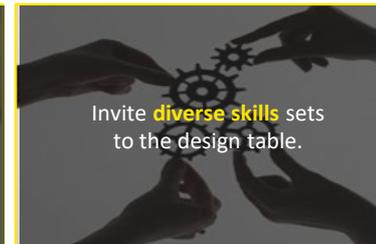
Goal for number of containers on blockchain freight tracking by end of 2017

# How do you win in a digital world? Demonstrate Digital in the way you work by Thinking Digital!

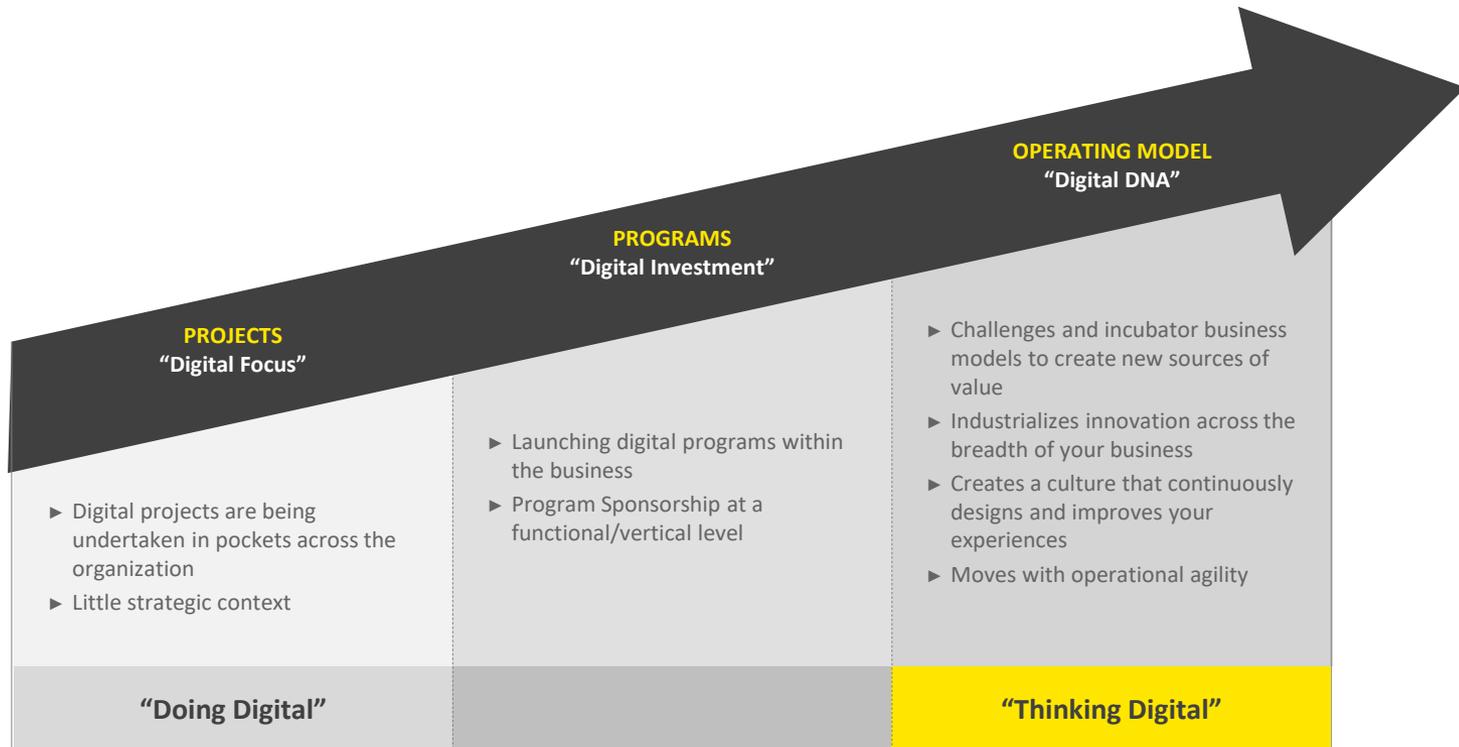


## Key steps to Thinking Digital™

- ▶ Keep pace without knowing the future...
- ▶ Compete against a company that doesn't exist yet...
- ▶ Employ teams with skills of digital natives...
- ▶ Balance what is working today with what needs to change for tomorrow...



# You should stop “Doing Digital” and start “Thinking Digital”, then you can run like a digital leader



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