TRANSPONDO BARREIRAS À ADOÇÃO DE IOT A PARTIR DE UMA VISÃO DO NEGÓCIO

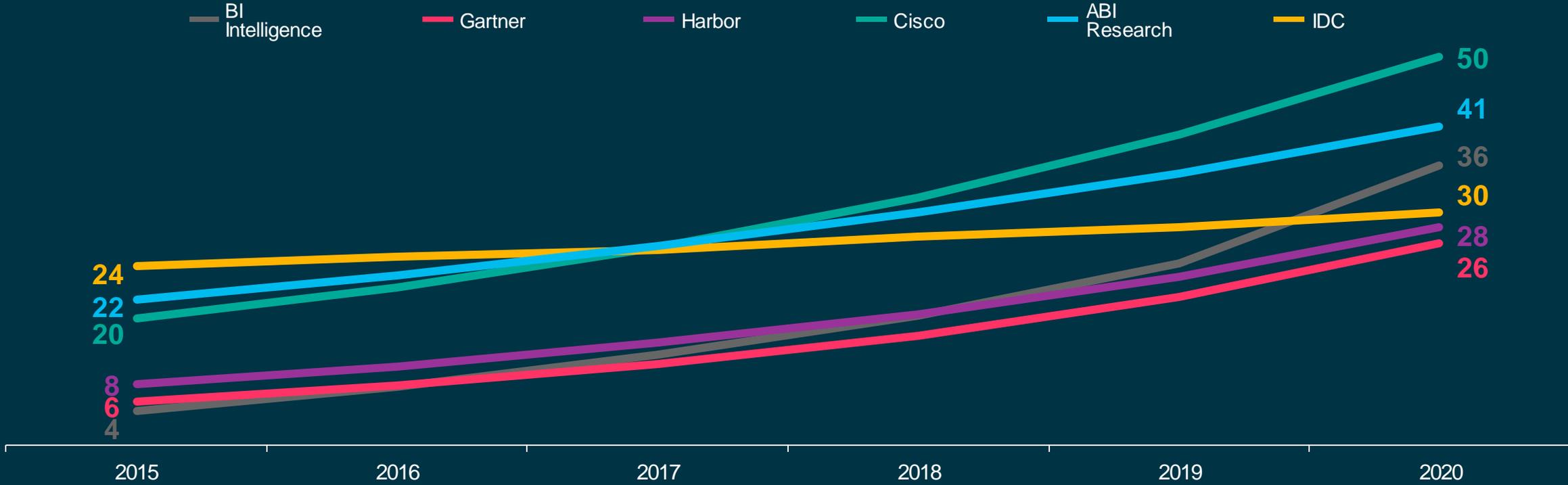## SEMINÁRIO - IOT - A REVOLUÇÃO DAS COISAS

accenturedigital

IOT MARKET AND TECHNOLOGY PERSPECTIVE

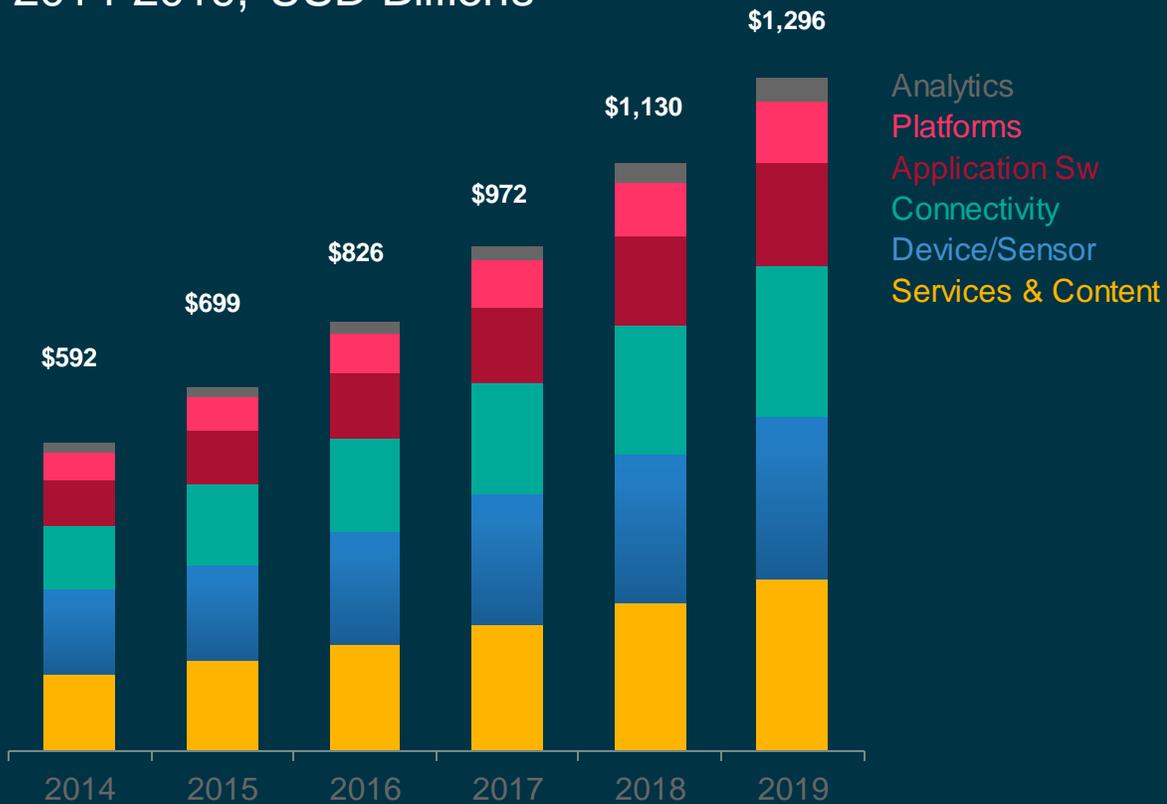# DATA CONSULTING FIRMS BETS IN A STRONG IOT MARKET GROWTH

Estimates of Internet of Things Devices
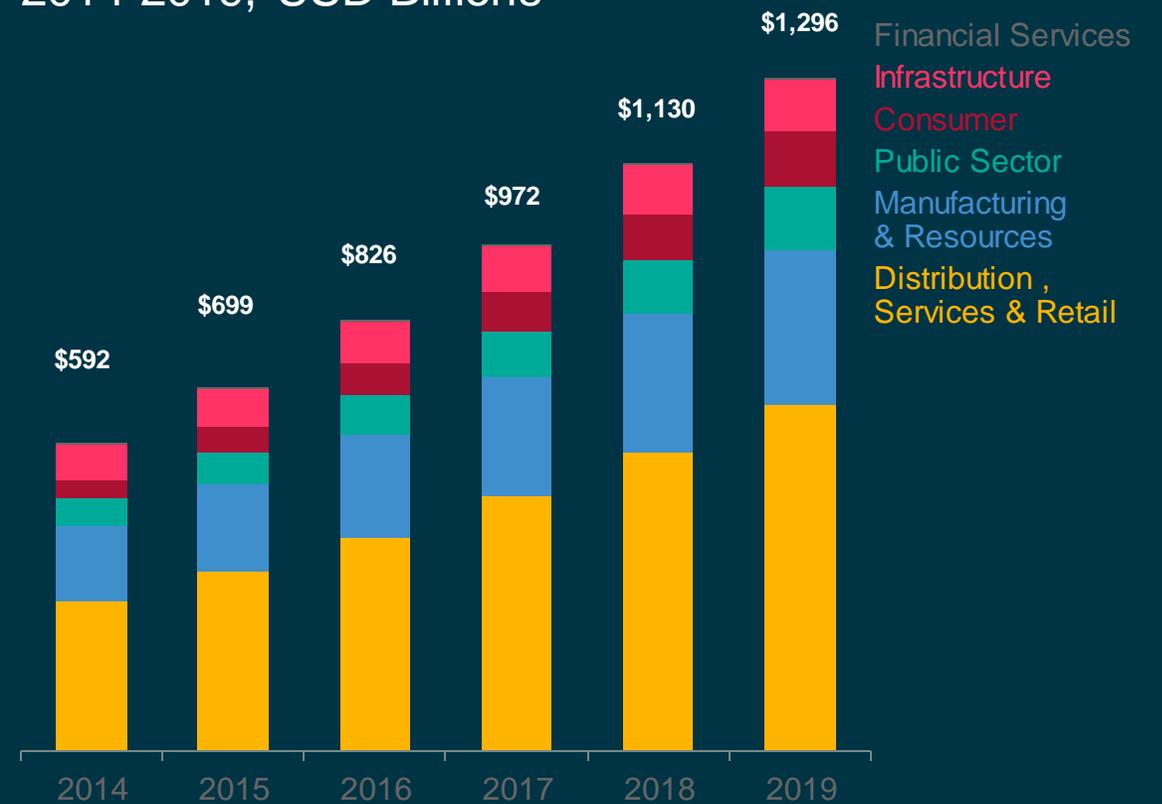2015-2020, Billions of Devices

Legend: BI Intelligence · Gartner · Harbor · Cisco · ABI Research · IDC

IoT market and technology perspective

A $1.3T REVENUE OPPORTUNITY BY 2019

Worldwide IoT Revenue by Technology Split
2014-2019, USD Billions

$1,296
$1,130
$972
$826
$699
$592

Analytics
Platforms
Application Sw
Connectivity
Device/Sensor
Services & Content

2014 2015 2016 2017 2018 2019

Worldwide IoT Revenue by Industry Sector
2014-2019, USD Billions

$1,296
$1,130
$972
$826
$699
$592

Financial Services
Infrastructure
Consumer
Public Sector
Manufacturing
& Resources
Distribution ,
Services & Retail

2014 2015 2016 2017 2018 2019

IoT market and technology perspective

IOT PLAYERS LANDSCAPE HAS GROWN 6X IN LESS THAN 3 YEARS

6x

MAY 2013
200 VENDORS
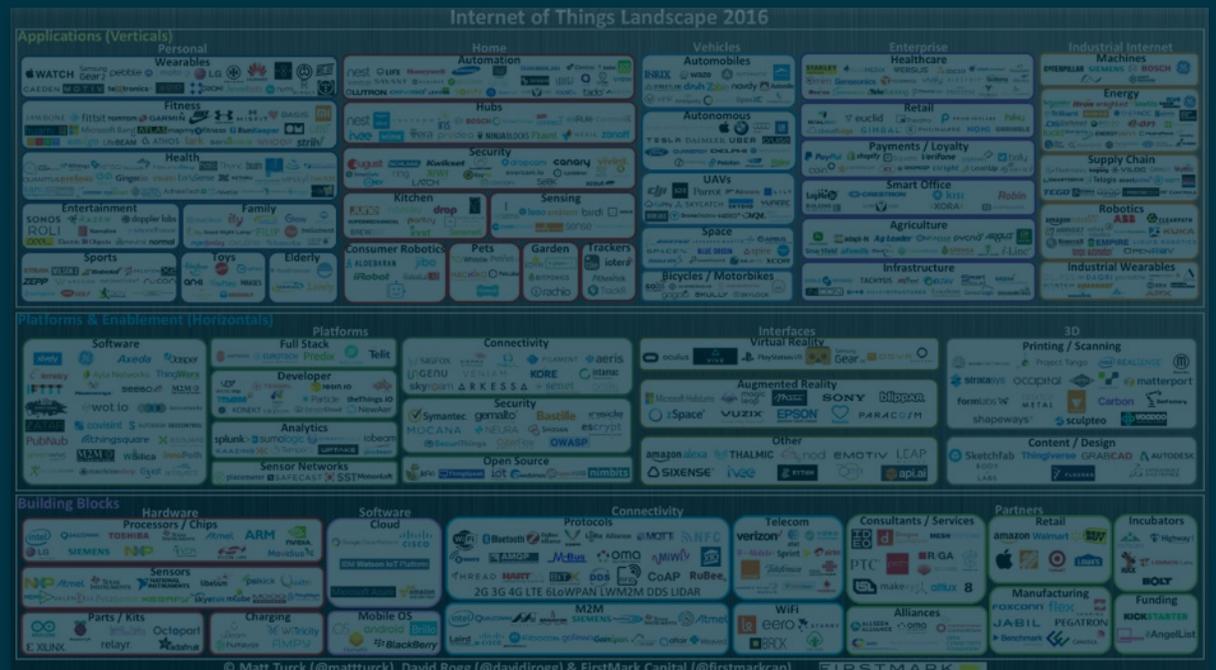
MAR 2016
MORE THAN 1200 VENDORS

IoT market and technology perspective
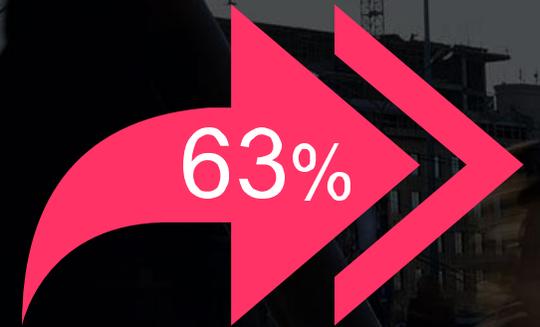
IOT WILL TOUCH EVERY BUSINESS WITHIN THE NEXT THREE YEARS...
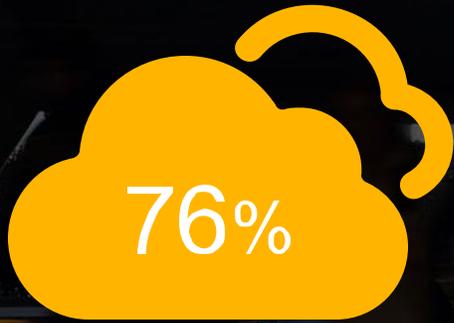
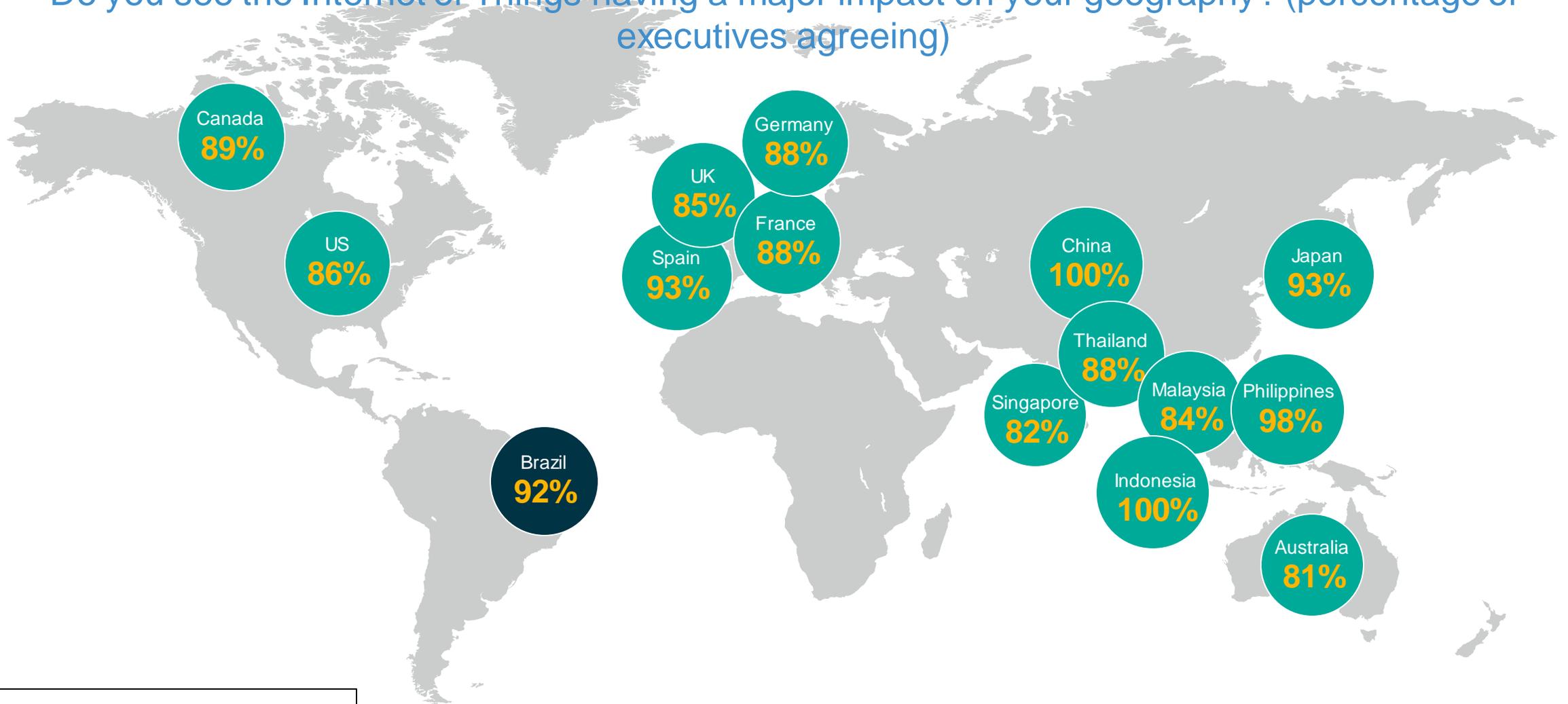**76%** of executives worldwide are exploring IoT today

95% of them expect their company to use IoT within the next three years

63% of executives believes the IoT offers them a competitive advantage and if they don't implement IoT solutions they will fall behind competition

IoT market and technology perspective

...IN EVERY GEOGRAPHY

Do you see the Internet of Things having a major impact on your geography? (percentage of executives agreeing)

Canada
89%

US
86%

Germany
88%

UK
85%

France
88%

Spain
93%

Brazil
92%

China
100%

Japan
93%

Thailand
88%

Singapore
82%

Malaysia
84%

Philippines
98%

Indonesia
100%

Australia
81%
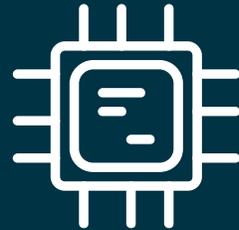
IoT market and technology perspective

ENABLING FACTORS FUELING IOT GROWTH POTENTIAL

0.5X
DECREASE IN COST OF SENSORS

60X
DECREASE IN COST OF PROCESSING

40X
DECREASE IN COST OF BANDWIDTH

50X
DECREASE IN COST OF STORAGE

IoT market and technology perspective

IF THE MARKET AND TECHNOLOGY IS THERE, WHY IOT HAVEN'T BOOMED YET?

THERE ARE SEVERAL EXAMPLES OF PROMISING SOLUTIONS THAT HAVEN'T TAKEN OFF YET

USE-BASED INSURANCE

CONNECTED FRIDGES

REMOTE HEALTHCARE

SMART HOME

SMART CITIES

Why IoT haven't boomed yet?

BUSINESS CASE IS HOLDING BACK THE COMPANIES

What do you think will hinder the deployment of an "Internet of Things" solution at your organization in the next two years?

Top 5

Legend: LATAM, North America, EMEA, Asia/Pacific

Categories: Up-front costs; Existing infrastructure limits possibilities; Other IT priorities; Ongoing costs (monthly connectivity charges, data storage or analytics fees, etc.); Security and/or privacy concerns

Why IoT haven't boomed yet?
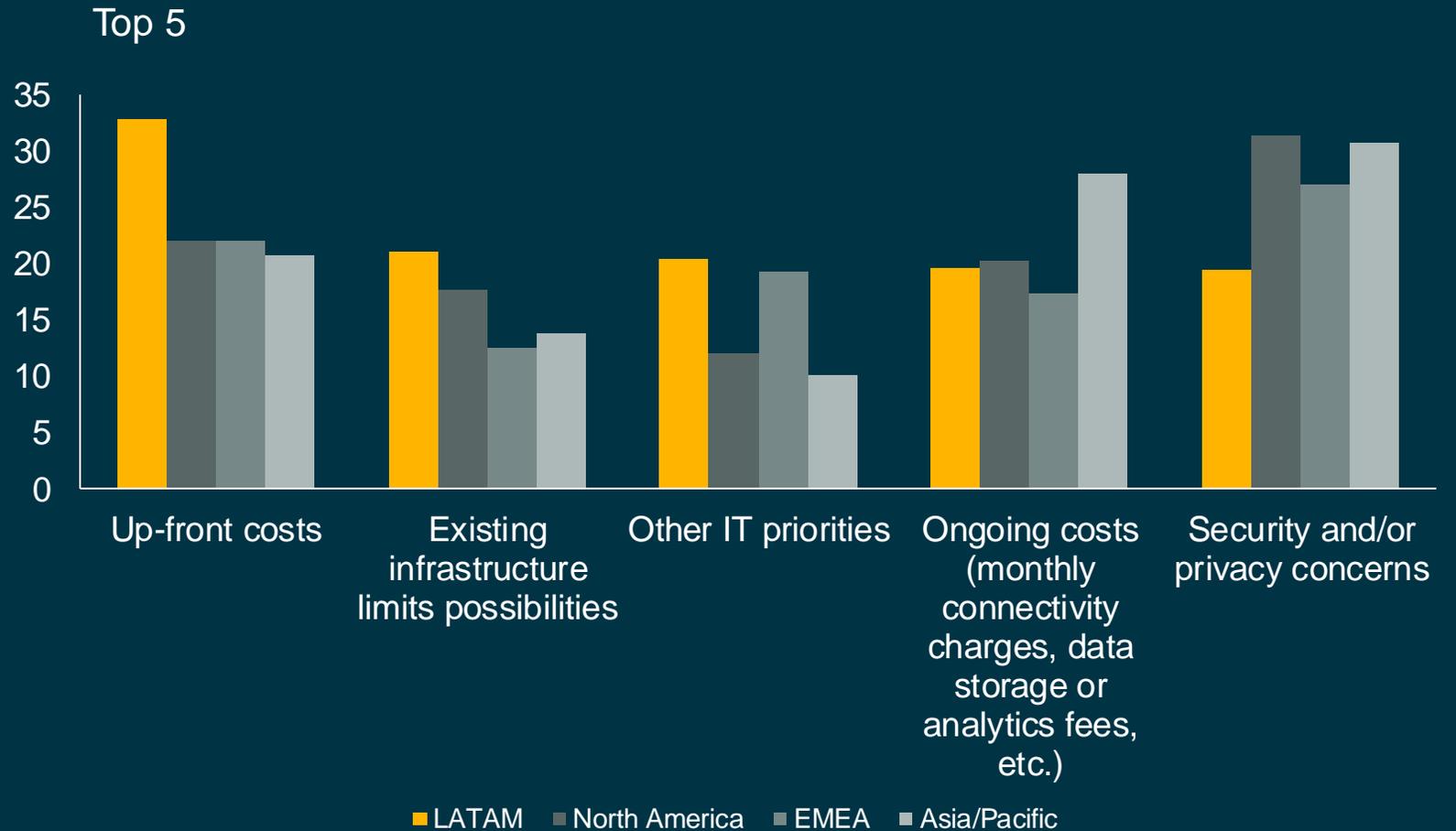
IOT IS A MEAN, NOT AN END

In the next three years executives believe the IoT will

Top 5

87%
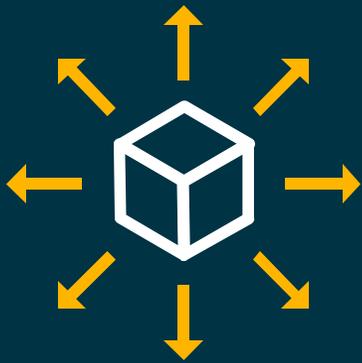
…enable us to enhance our products and services

87%

…increase levels of engagement with our solutions

86%

…improve our supply chain

85%

…allow us to develop new revenue streams

83%

…empower employees

Why IoT haven't boomed yet?

WHAT COMPANIES ARE LOOKING FOR USING IOT?
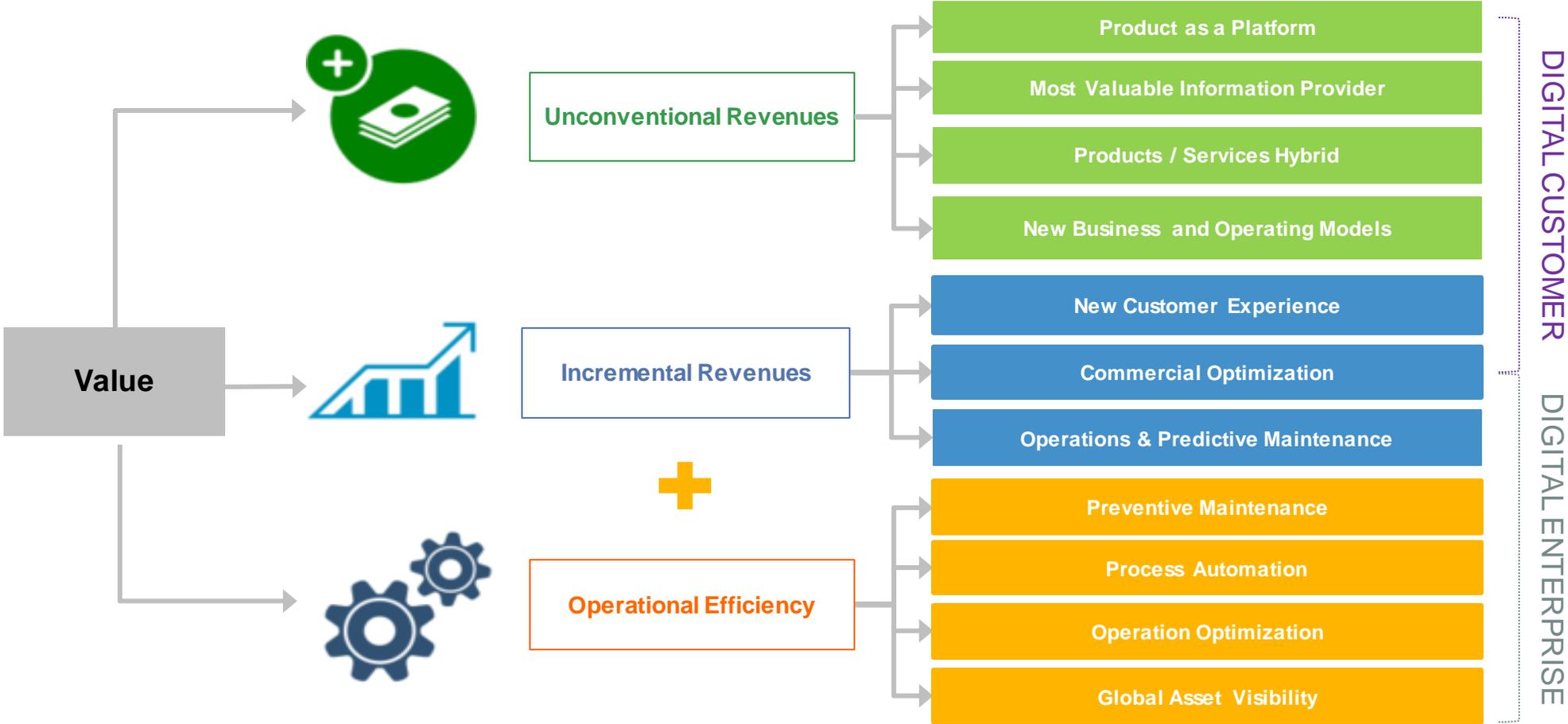
Value

Unconventional Revenues
- Product as a Platform
- Most Valuable Information Provider
- Products / Services Hybrid
- New Business and Operating Models

Incremental Revenues
- New Customer Experience
- Commercial Optimization
- Operations & Predictive Maintenance

Operational Efficiency
- Preventive Maintenance
- Process Automation
- Operation Optimization
- Global Asset Visibility

DIGITAL CUSTOMER

DIGITAL ENTERPRISE

Why IoT haven't boomed yet?

SIMPLIFYING IOT IS KEY TO BECOMING A SUCCESSFUL IOT BUSINESS

WHEN THE BUSINESS ISSUE/OPPORTUNITY IS IDENTIFIED A SOLUTION MUST BE FOUND

Ecosystem complexity and lack of standards is the other issue to overcome

Sensors	Devices	Networks	APIs	Apps	Data
212B	**50B**	**4.2B**	**80%**	**6.1B**	**31EB**
Sensors expected by 2020	Devices expected by 2020	People accessing 4G-LTE networks by 2020	Fortune 1000 could offer public APIs by end of 2014	Total number of app users by 2020	Mobile data traffic per month by 2020

Sensors	Devices	Networks	APIs	Apps	Data
Location			Billing	Touch Interfaces	User Data
Motion			Mapping	Gesture Tracking	Transaction Data
Chemical			Social		Field Data
Light		NFC	Search	Augmented Reality	Inventory Data
Heat					
Sound		4G LTE	Marketing	Voice Recognition	Performance Data

Simplifying IoT is key to becoming a successful IoT business

THE VALUE OF IOT IS IN TURNING RAW DATA INTO SIMPLE, ACTIONABLE INFORMATION

70M
drivers on Waze

~60M miles tracked
~34K accidents reported
~17K hazardous weather conditions reported

Sample data captured per day

Smart routing algorithm

Simple driving recommendation app UI

80M+
hours of time in traffic saved per year

Simplifying IoT is key to becoming a successful IoT business

DIGITAL ENTERPRISE OPERATIONAL EFFICIENCY AND INCREMENTAL REVENUES

IOT CAN BOOST OPERATIONAL EFFICIENCY

		Sample IoT solutions	Estimated impact on business	Estimated Value Over 15 Years
✈	**Aviation**	Real-time jet engine monitoring and fuel consumption optimization	1% fuel savings	$30B
🏭	**Power Generation**	Gas turbine predictive maintenance	1% fuel savings	$66B
💼	**Healthcare**	Shift to automated data collection, testing and diagnosis	1% increase in system efficiency	$63B
🚆	**Rail**	Smart routing and increased utilization rate	1% increase in system efficiency	$27B
⛏	**Oil & Gas**	Drilling process automation, connected refineries	1% increase in capital expenditures	$90B

Source: GE

Operational efficiency and incremental revenues
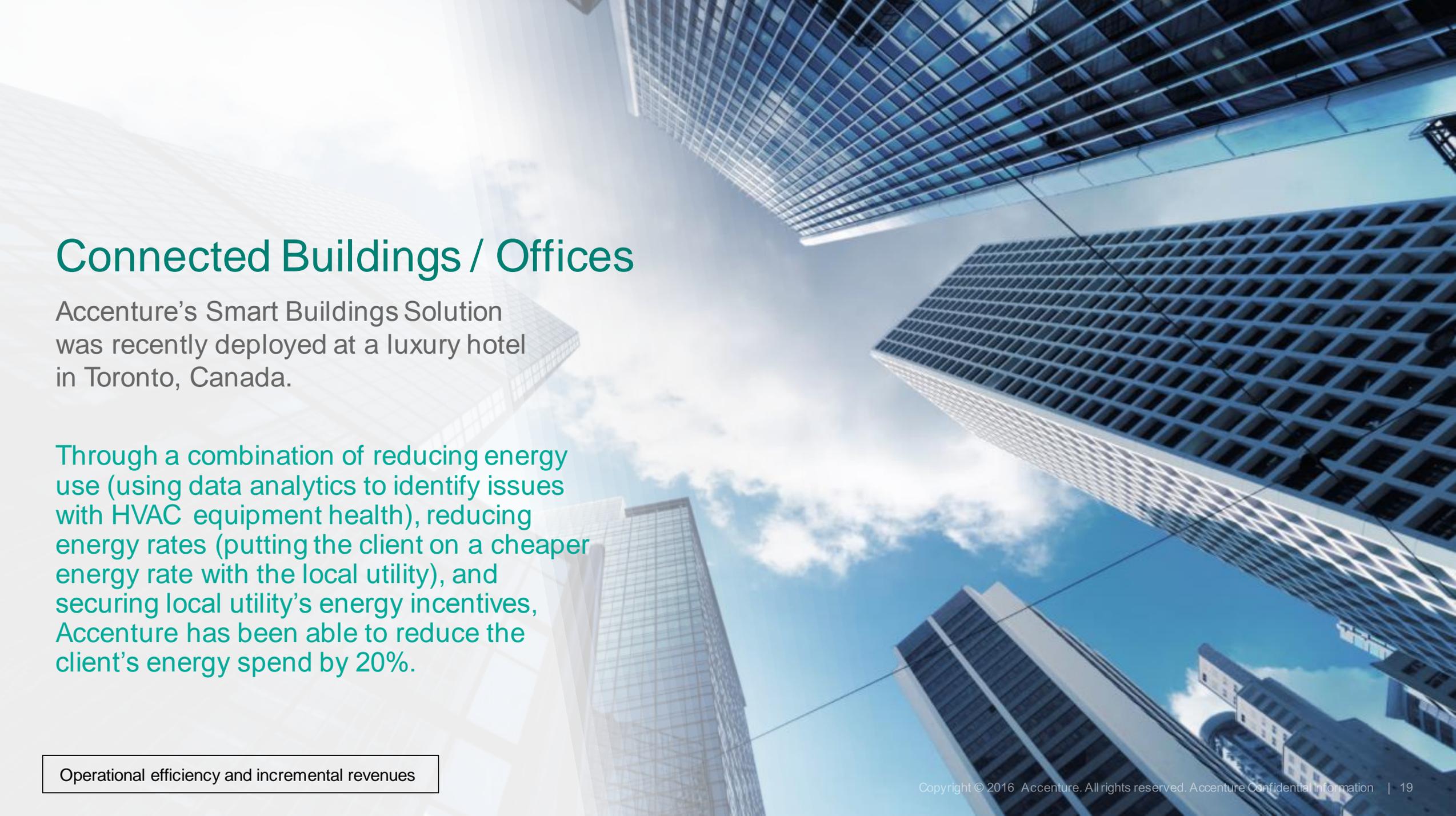
Connected Buildings / Offices

Accenture's Smart Buildings Solution was recently deployed at a luxury hotel in Toronto, Canada.

Through a combination of reducing energy use (using data analytics to identify issues with HVAC equipment health), reducing energy rates (putting the client on a cheaper energy rate with the local utility), and securing local utility's energy incentives, Accenture has been able to reduce the client's energy spend by 20%.

Operational efficiency and incremental revenues

RIOgaleão
aeroporto
internacional
tom jobim

Contexto e Desafios

- Disponibilizar uma solução de connected passenger em um dos aeroportos mais movimentados do Brasil.

- Integrar o aplicativo móvel a mais de 3.000 beacons de localização indoor

Solução

- Solução desenvolvida para 2 plataformas:
  - Android
  - iOS
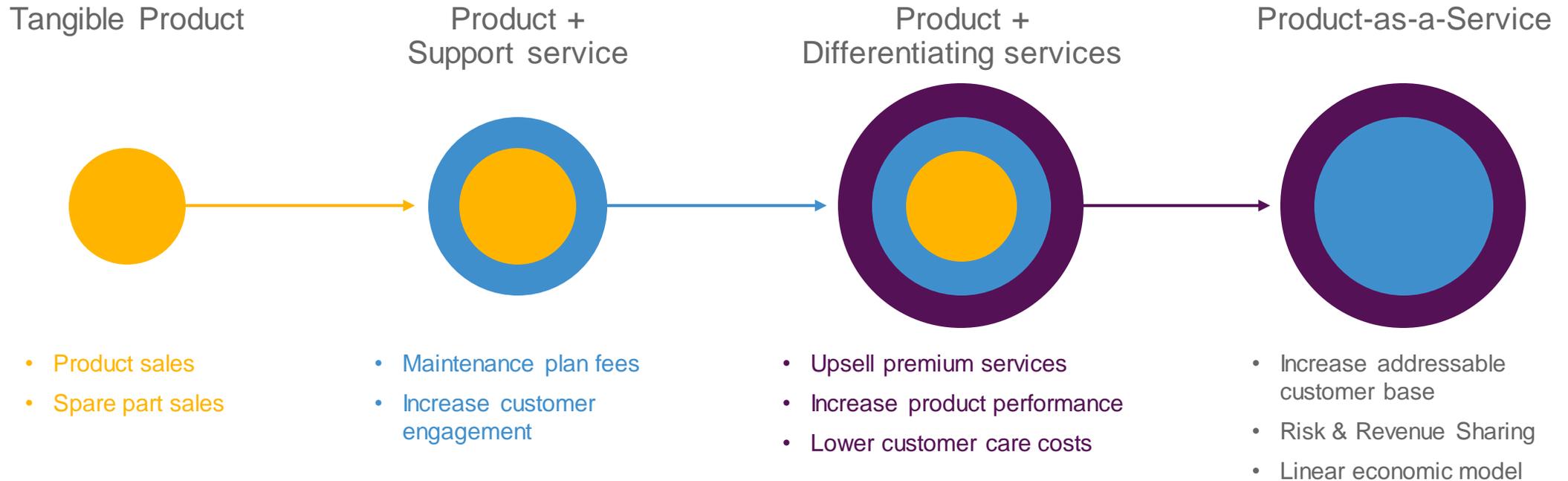 - Integração com plataformas de IoT para localização e roteirização indoor

Operational efficiency and incremental revenues
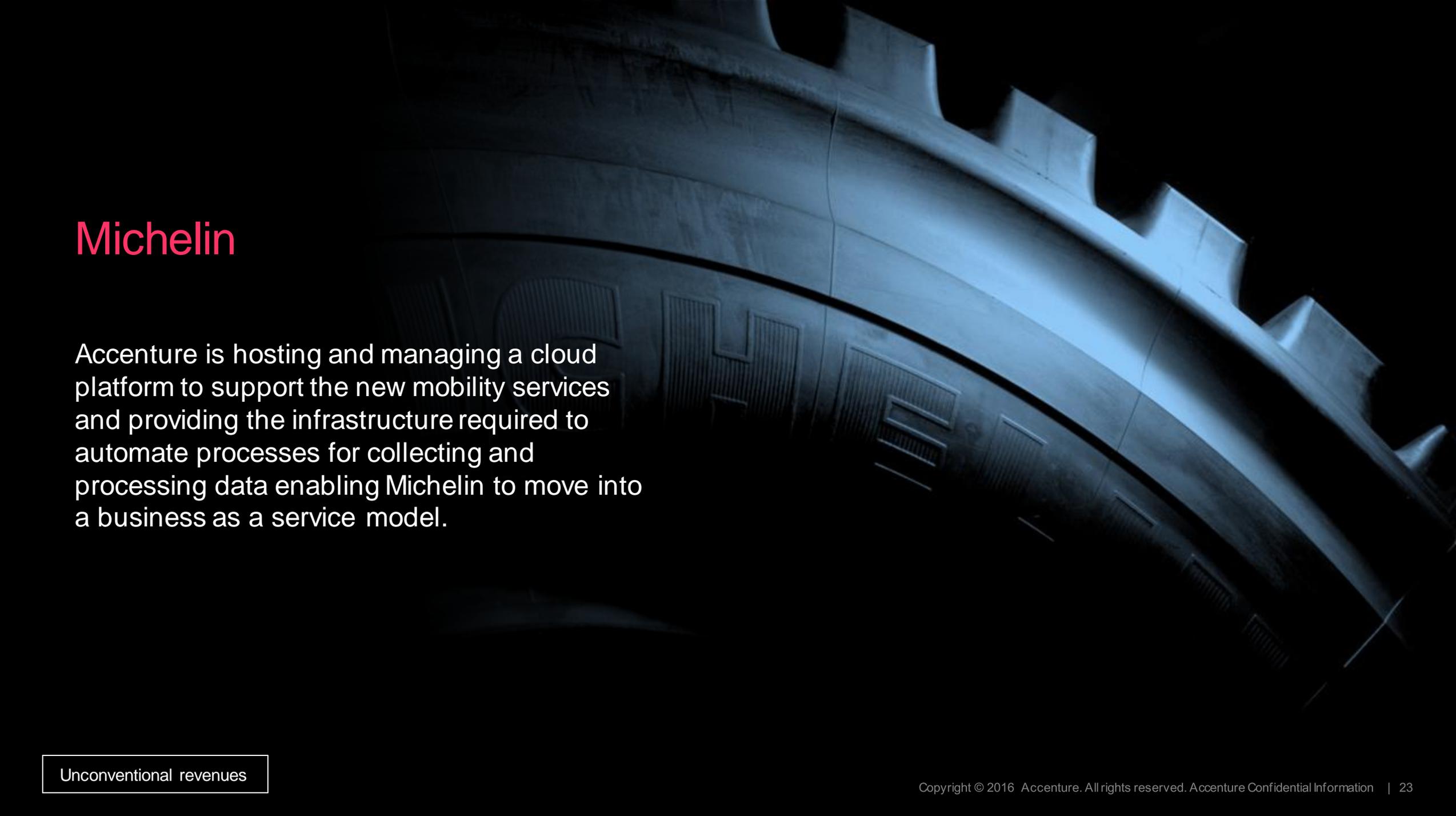
public app
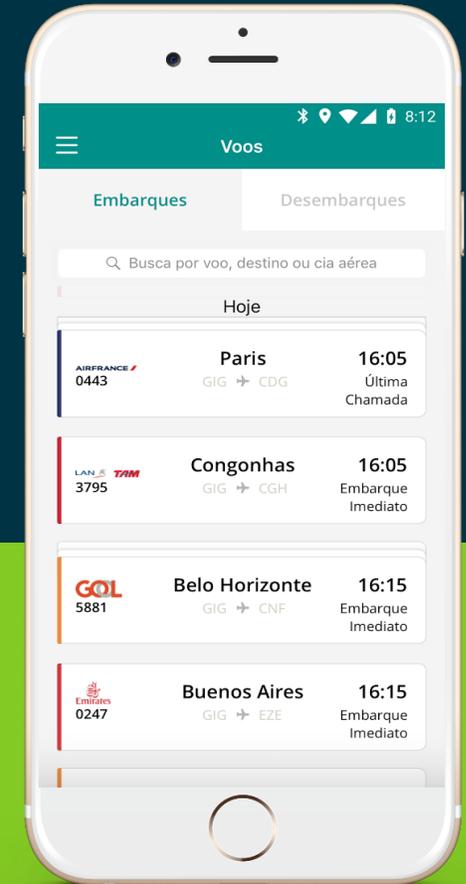
DIGITAL CUSTOMER UNCONVENTIONAL REVENUES

IOT ALLOWS BUSINESSES TO SHIFT FROM PRODUCT TO SERVICE MODELS

Tangible Product	Product + Support service	Product + Differentiating services	Product-as-a-Service

• Product sales • Spare part sales	• Maintenance plan fees • Increase customer engagement	• Upsell premium services • Increase product performance • Lower customer care costs	• Increase addressable customer base • Risk & Revenue Sharing • Linear economic model

Tire manufacturing example

Tires	Field service workforce	Predictive analytics on sensor-based tires	Tires sold by the mile

Unconventional revenues

Michelin

Accenture is hosting and managing a cloud platform to support the new mobility services and providing the infrastructure required to automate processes for collecting and processing data enabling Michelin to move into a business as a service model.

Unconventional revenues

Smart Home
A Global Utility Company

Accenture delivered a technology platform for a top ten global utility in a competitive energy retailing market.

The platform allows the utility to provide its residential customer with energy information, including tips on how to reduce consumption through behavioral change and equipment upgrades.

The platform can be extended to allow the client to offer new home automation and security services to its residential clients.

Unconventional revenues

City of Chicago
Urban infrastructure innovation for Chicago

As a founding member of a consortium designed to solve urban infrastructure challenges, Accenture is embarking on a number of digital solutions for the City of Chicago which could lead to transformative improvements in cities around the world.
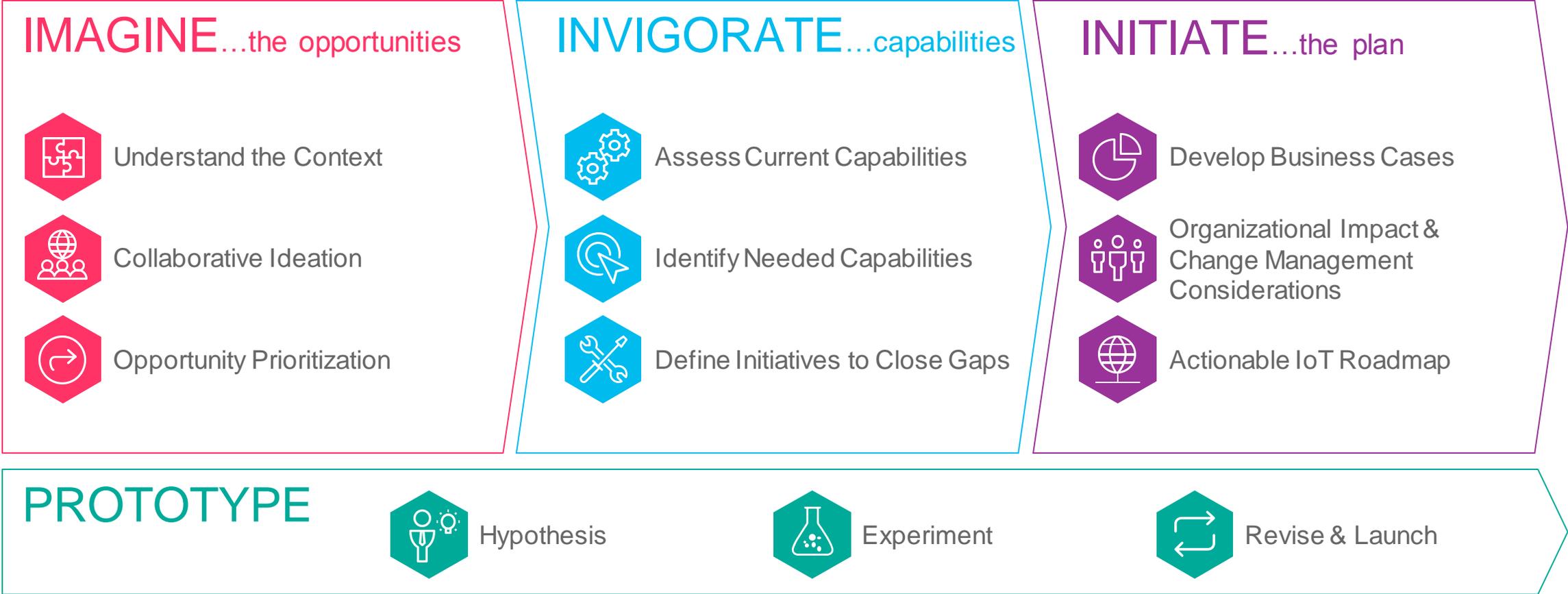
The consortium is seeking to produce commercial solutions in four key areas: energy management; physical infrastructure; water and sanitation systems; and transportation and logistics systems.

HOW TO START TODAY?

TRANSFORM THE BUSINESS

Focus on identifying and capturing transformative value from IoT, leveraging rapid prototyping to validate benefit realization, while developing a robust plan of action for sustained success

IMAGINE ...the opportunities

- Understand the Context
- Collaborative Ideation
- Opportunity Prioritization

INVIGORATE ...capabilities

- Assess Current Capabilities
- Identify Needed Capabilities
- Define Initiatives to Close Gaps

INITIATE ...the plan

- Develop Business Cases
- Organizational Impact & Change Management Considerations
- Actionable IoT Roadmap

PROTOTYPE

- Hypothesis
- Experiment
- Revise & Launch

How to start today?

FOR MORE INFORMATION, CONTACT

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