The Present & Future of Global Innovation

An SAP Perspective

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These are the new materials enabling business innovation

Internet of Things

Big Data

Cloud

Mobile

What does this mean for existing business?

GE engines in 2013

"These engines generate 1Tb of data per aircraft per day"

Jeff Immelt – CEO GE Keynote for Minds + Machines 2012 talking about the new LEAP engine

In 2008, the number of things connected to the Internet exceeded the number of people on earth

2003 2010 2015 By 2020, 50 billion Things*

Definition: The output of sensors and devices used to measure and record the events in the physical world is e-generated data. **As sensors proliferate and data volumes grow, traditional technology cannot handle the volume, type and speed – hence the need for next generation platforms**

** Berg Insights (2011)*

How Big Data is impacting the world?

$300 Billion
in potential annual value to US health care - more than double the total annual health care spending in Spain

€250B
in potential annual value to Europe's public sector administration - more than GDP of Greece

$600 Billion
in potential annual consumer surplus from using personal location data globally

60%
potential increase in retailers' operating margins possible with Big Data

McKinsey: Big Data - The Next Frontier report. Sept. 2011

Creating a $14T business opportunity…

1st Industrial Revolution

Adoption of mechanical production facilities by using water and steam power

End of the 18th century

2nd Industrial Revolution

Adoption of work-sharing mass production by using electrical power

Beginning of the 20th century

3rd Industrial Revolution

Use of electronics and IT to automate the production

Early 70s (20th century)

4th Industrial Revolution

Based on cyber-physical systems

Today

Complexity >>>

Source: CISCO IoT Report, May 2013

Disruptive innovation creates new business models

WhatsApp

Netflix

Uber

iTunes

Disruptive innovation impacts all industries

Automotive

Retail

Government

Healthcare

Seoul National University Bundang Hospital

Improving patient care and reducing costs

“With the deployment of SAP's HANA database (DB), patient care improved visibly and long-held assumptions were also broken with real-time feedback…" he says. "Within 3 months of adopting such a clinical indicator, usage dropped from 5.8 percent to 1.2 percent. The use of 3rd-line antibiotics went down to zero percent.”

Dr. Hee Hwang, CIO at Seoul National University Bundang Hospital's (SNUBH) and associate professor for pediatric neurology

Identifying use cases for your industry

Responsive Supply Chains

Remote Maintenance & Service

Connected Home

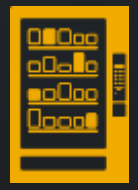
Connected Cities

Connected Asset Management

Connected Logistics

Connected Car

Connected Health



Connected Retail

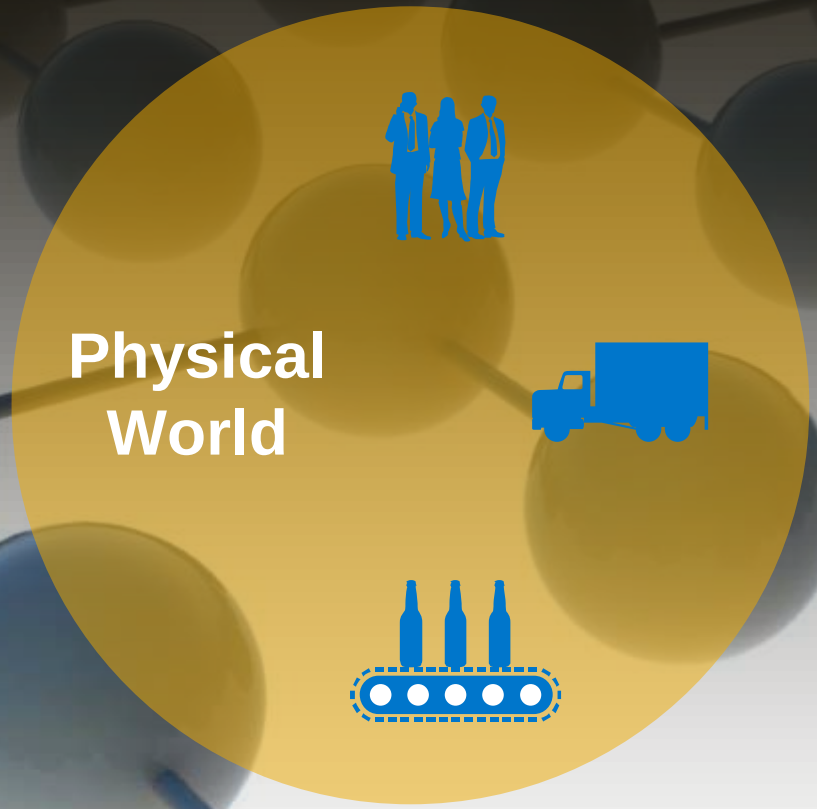
Connected Buildings

Connected Family

Connected Policing

Finding the “sweet spot”

- People
- Trucks
- Material
- Ingredients
- Shopping carts



Finding the “sweet spot”

- Databases
- Cloud
- WiFi
- Bluetooth
- Mobile network

Finding the “sweet spot” – Intersection drives value

Cloud, In-Memory, Mobility

$

Physical World

Virtual World

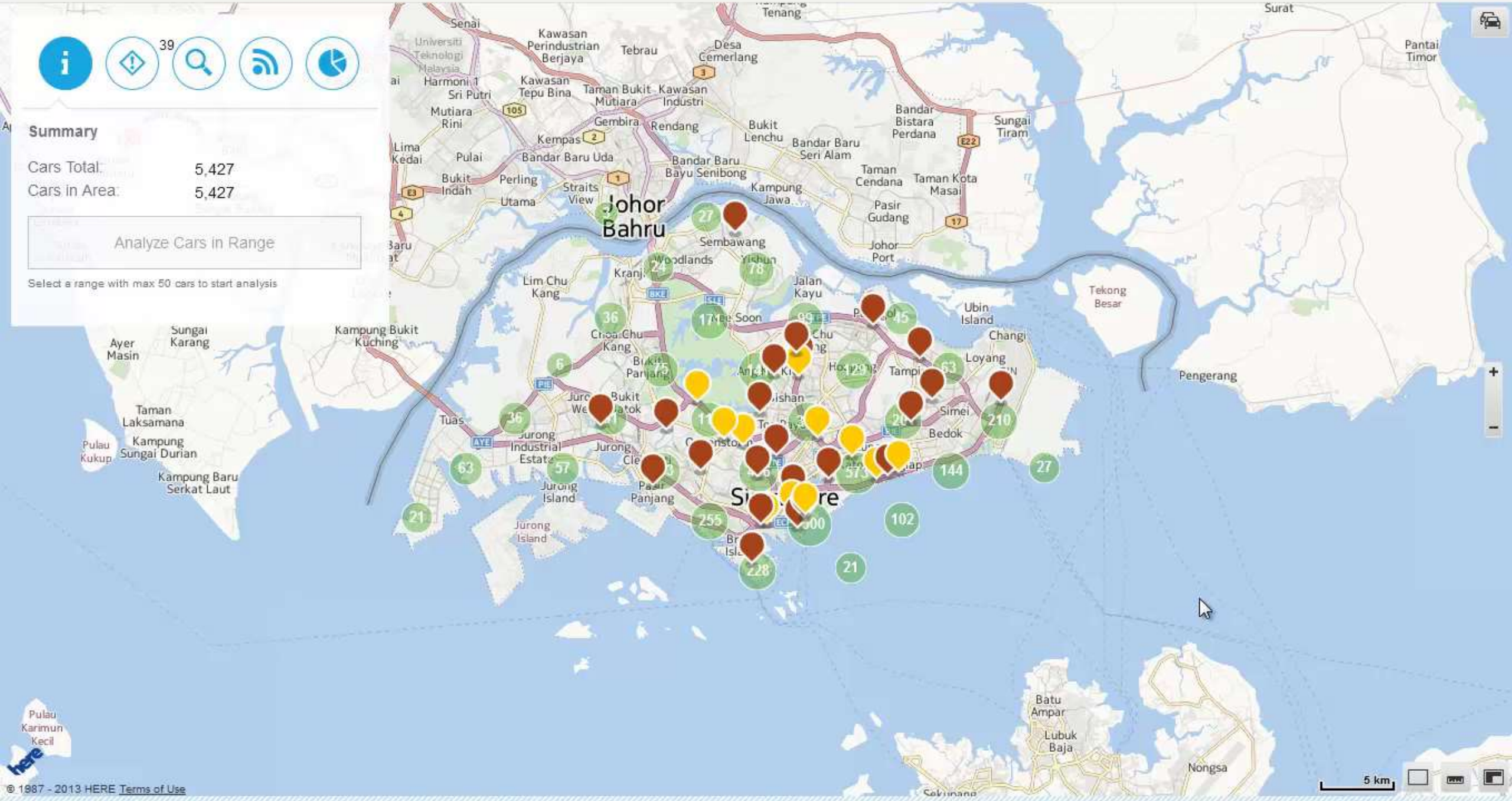
- RFID
- iBeacon
- Phone
- NFC
- Sensors
- Google glasses

New types of application

- Precision Marketing
- Wind Farm Maintenance
- Predictive maintenance
- Fraud Management
- Demand Signal Management
- Sports Performance

Hyper-Connected Retail

They are not the same vending machines in fancier colors…


39
Summary
Cars Total: 5,427
Cars in Area: 5,427
Analyze Cars in Range
Select a range with max 50 cars to start analysis
Johor Bahru
Singapore
Senai
Kawasan Perindustrian Berjaya
Tebrau
Desa Cemerlang
Tenang
Surat
Pantai Timor
Universiti Teknologi Malaysia
Harmoni 1
Sri Putri
Kawasan Tepu Bina
Taman Bukit Mutiara
Kawasan Industri
Mutiara Rini
Gembira
Rendang
Bukit Lenchu
Bandar Bistara Perdana
Sungai Tiram
Lima Kedai
Pulai
Bandar Baru Uda
Bandar Baru Seri Alam
Bandar Baru Bayu Senibong
Taman Cendana
Taman Kota Masai
Bukit Indah
Perling
Straits View
Utama
Kampung Jawa
Pasir Gudang
Johor Port
Sembawang
Woodlands
Lim Chu Kang
Jalan Kayu
Tekong Besar
Ubin Island
Changi
Loyang
Pengerang
Ayer Masin
Sungai Karang
Kampung Bukit Kuching
Taman Laksamana
Pulau Kukup
Kampung Sungai Durian
Kampung Baru Serkat Laut
Tuas
Bukit Panjang
Bukit Batok
Jurong Industrial Estate
Jurong Island
Pasir Panjang
Tampi
Simei
Bedok
Batu Ampar
Lubuk Baja
Nongsa
Pulau Karimun Kecil
5 km
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HANA + GOOGLE GLASS

What it takes to drive business innovation

Innovative Goods

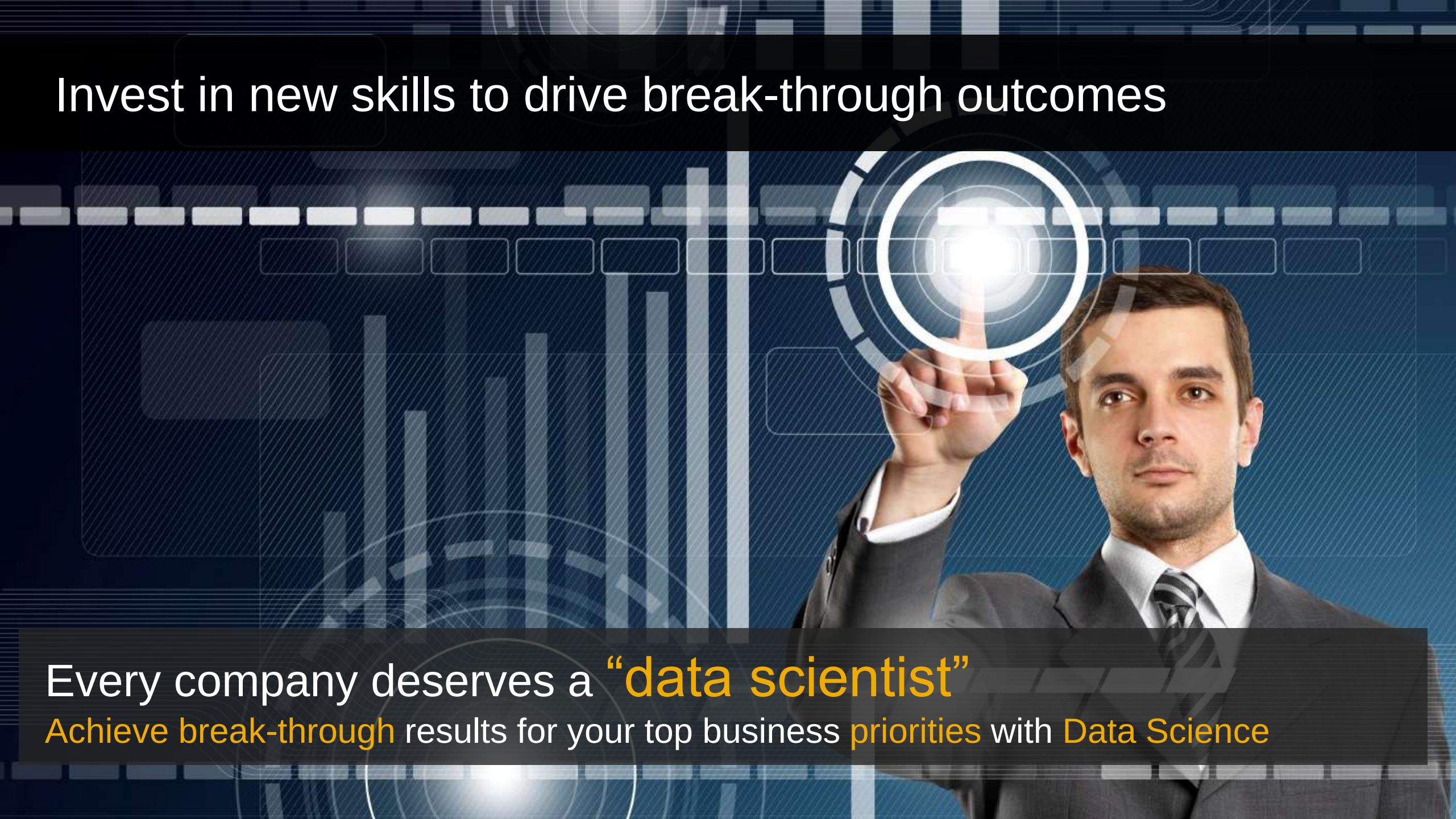
+

High Value Services, Apps

+

Real-Time, Relevant Information

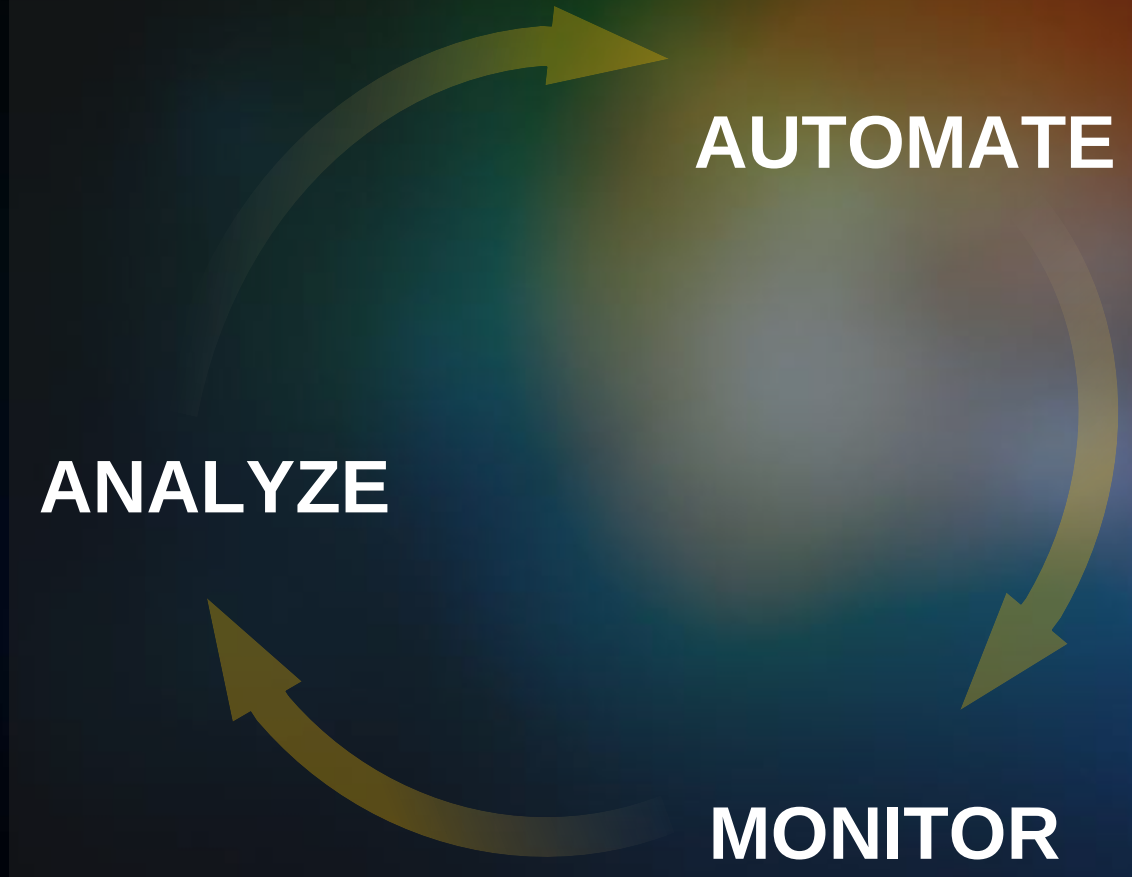
Invest in new skills to drive break-through outcomes



Every company deserves a “data scientist”

Achieve break-through results for your top business priorities with Data Science

Establish the next generation platform



Applications – SAP, Partner, Custom

Agile Development

Mobility

Predictive Analytics

Event Streaming

In-Memory Data Store

Secure & Governed

Leverage Design Thinking to create new ideas

ACCELERATE

Establish a real-time platform

APPLY

Identify high impact scenarios

ACHIEVE

Leverage new skills to execute

www.designthinkingwithsap.com

Thank You!

@pmmarriott

http://www.sap.com/internetofthings

http://www.sap.com/bigdata

SAP Internet of Things