

# LOGISTICS TREND RADAR



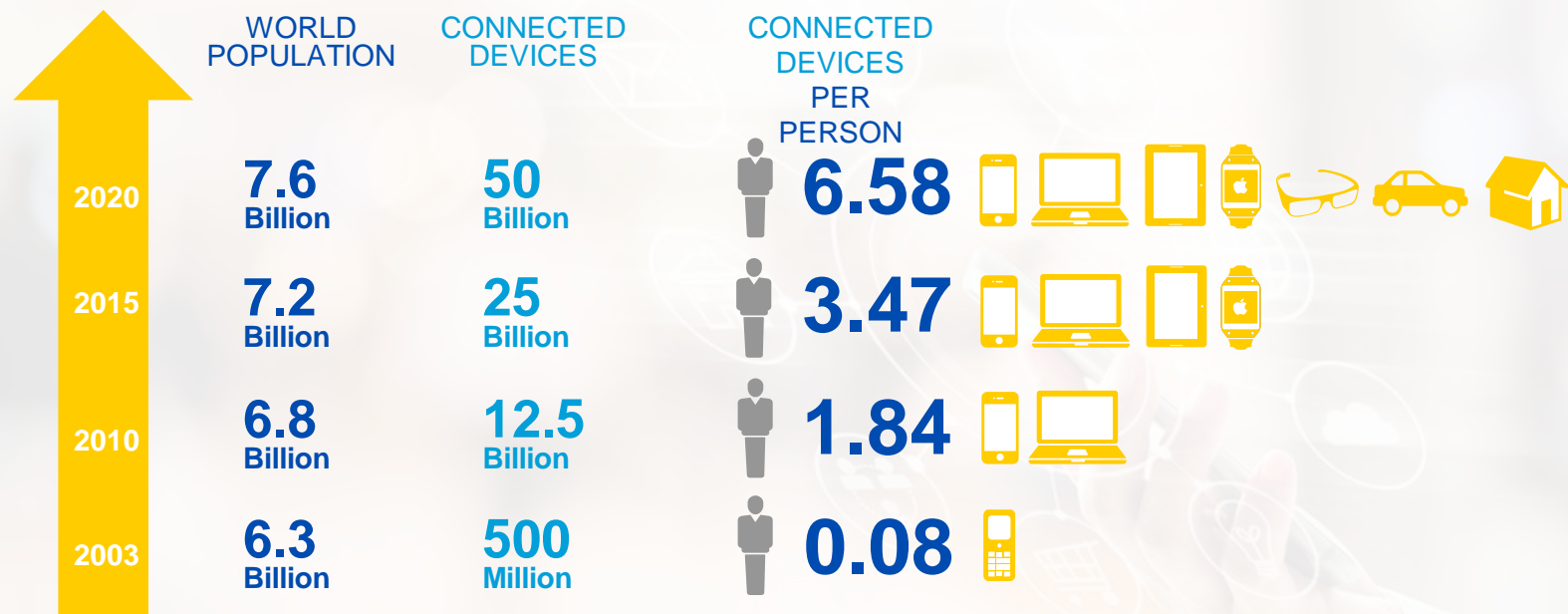
Driving Customer-centric Innovation @ DHL

Gina Chung, Global Director Trend Research  
Shanghai | 6 September 2017

# Digitalization...

- ➔ is the biggest opportunity since globalization
- ➔ equips humanity with fundamentally new abilities
- ➔ is not only about new technology, but also about a different mindset and culture
- ➔ changes the way we communicate, work, travel, consume, and do many other things!

# Mobile has transformed the world. But what comes after mobile?



Source: Cisco



# Artificial intelligence will be a constant in every software by 2020

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## JPMorgan Software Does in Seconds What Took Lawyers 360,000 Hours

by **Hugh Son**  
27 February 2017 9:31 p.m. Updated on 28 February 2017 9:24 a.m.

- New software does in seconds what took staff 360,000 hours
- Bank seeking to streamline systems, avoid redundancies

At JPMorgan Chase & Co., a learning machine is parsing financial deals that once kept legal teams busy for thousands of hours.

The program, called COIN, for Contract Intelligence, does the mind-numbing job of interpreting commercial-loan agreements that, until the project went online in June,



Source: Gartner, JP Morgan

# Robots are becoming smarter – anything that can be automated, will be automated

RISE OF THE SEWBOTS

**A new t-shirt sewing robot can make as many shirts per hour as 17 factory workers**

**Bloomberg Businessweek** Markets Tech Pursuits Politics Opinion **Businessweek**

■ August 30, 2017, 10:00 PM GMT+2


## China Snaps Up America's Cheap Robot Labor

● A Chinese T-shirt company is setting up shop in Arkansas, lured by U.S. sewbots and lower production costs.



Source: Quartz, Bloomberg





The biggest future revenue and  
profit impact of digitalization is set  
to occur through the digitalization of  
Supply Chains

- McKinsey



# Startups are unbundling the traditional integrators



Source: DHL Trend Research (2016); Total funds raised since launch

# Sustainability

Climate change is the biggest threat to society and the global economy

Companies that invest in sustainable practices today have competitive advantage tomorrow

Logistics companies need to burn less (use less energy) and burn clean (use alternative fuels)

DHL has committed to reduce logistics-related emissions to zero by 2050



## How do we identify trends?



## Megatrends



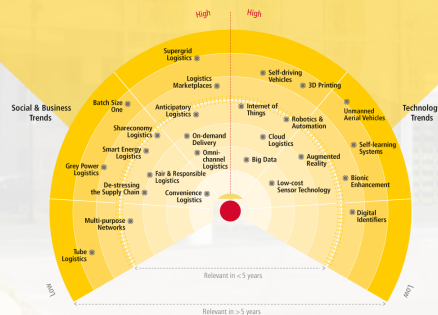
## Microtrends & Startups



## Partners

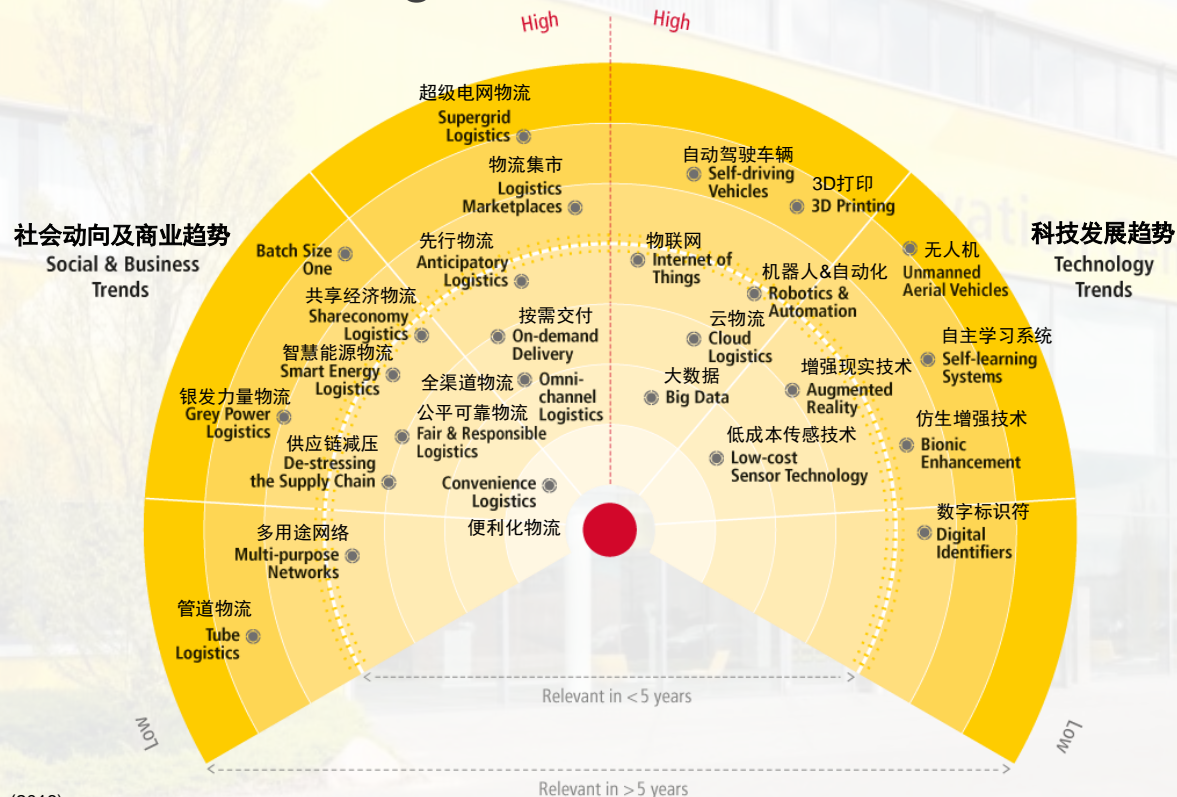


## Customers



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# Logistics Trend Radar



Source: DHL Trend Research (2016)



# How do we drive innovation?



**1**  
**Trend Radar**



**2**  
**Trend Report**



**3**  
**Customer  
Engagement**



**4**  
**PoC / Pilots**



**Handover to  
Business Unit**



**Initiate Global  
Accelerators**

Source: DHL Trend Research (2016)



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# Logistics Trend Radar



Source: DHL Trend Research (2016)



# Omni-channel Logistics

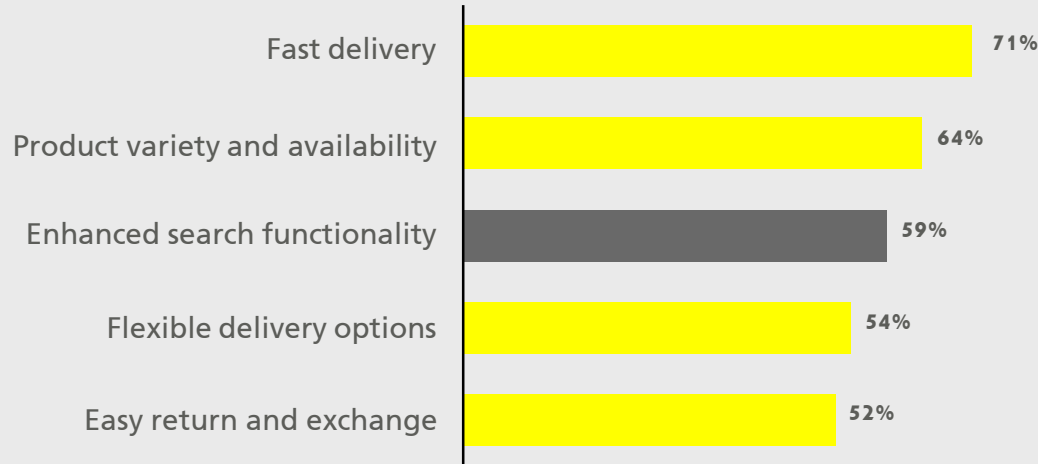


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# Omni-channel Logistics

## Why is it so important?

### Top 5 Customer Expectations When Shopping\*



Logistics will play a crucial role in fulfilling shoppers' expectations.

Downstream innovations can act as a competitive differentiator for retailers!

Source: \*DHL – IDC Market Study (2016)





# Omni-channel Logistics

## Parcelcopters for faster delivery



Source: DPDHL



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# Omni-channel Logistics

## Anytime, anywhere delivery



Source: DPDHL, August



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# Internet of Things



# Internet of Things

## Indoors: connected warehouse



### INTERNET OF THINGS IN LOGISTICS

A collaborative report by DHL and Cisco on implications and  
use cases for the logistics industry  
2015







# Internet of Things

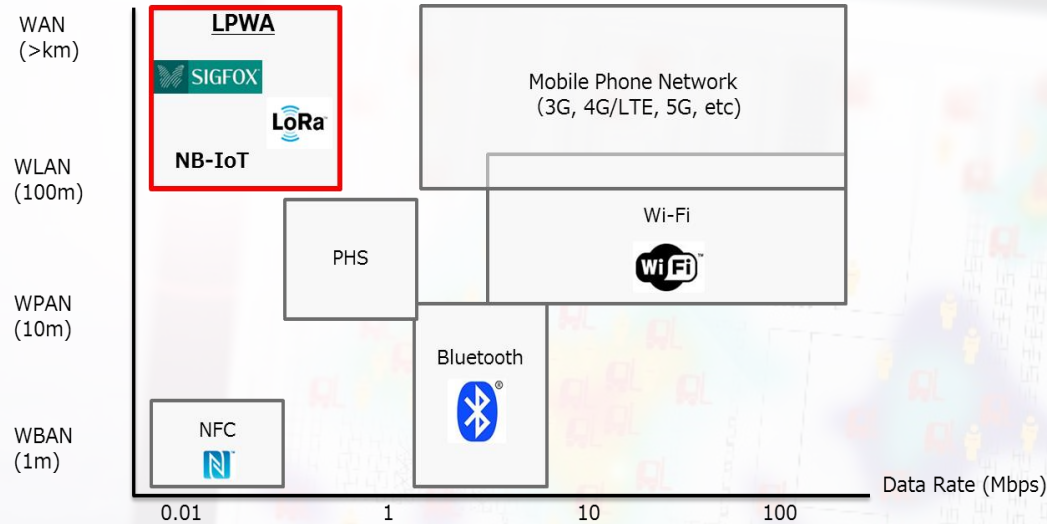
## Outdoors: industrial IoT is yet to take off





# Internet of Things

## Emerging IoT networks will enable widespread adoption



- Industrial IoT applications are at the cusp of taking off thanks to the growth in LPWA networks
- Low-cost, long-range sensors with long battery life are also accelerating the adoption of IoT

# Robotics & Automation



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## Robotics & Automation

**Why now?**

80%

47%

...of warehouses today are  
manually operated  
(St. Onge Company)

... of all jobs will be  
automated by 2034  
(Economist, 2014)

# INDUSTRIAL ROBOTS

Caged and  
Fixed

Expensive

Programed



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A woman with short dark hair and glasses, wearing a high-visibility yellow vest over a dark shirt, is looking at a small screen on a red collaborative robot arm. The robot arm is positioned over a conveyor belt with yellow boxes. In the background, there are shelves filled with blue boxes. To the right, a man with blonde hair, also wearing a high-visibility yellow vest, is seen from the back, looking at the same area. The scene is set in a warehouse or factory environment.

# COLLABORATIVE ROBOTS

Small  
Footprint

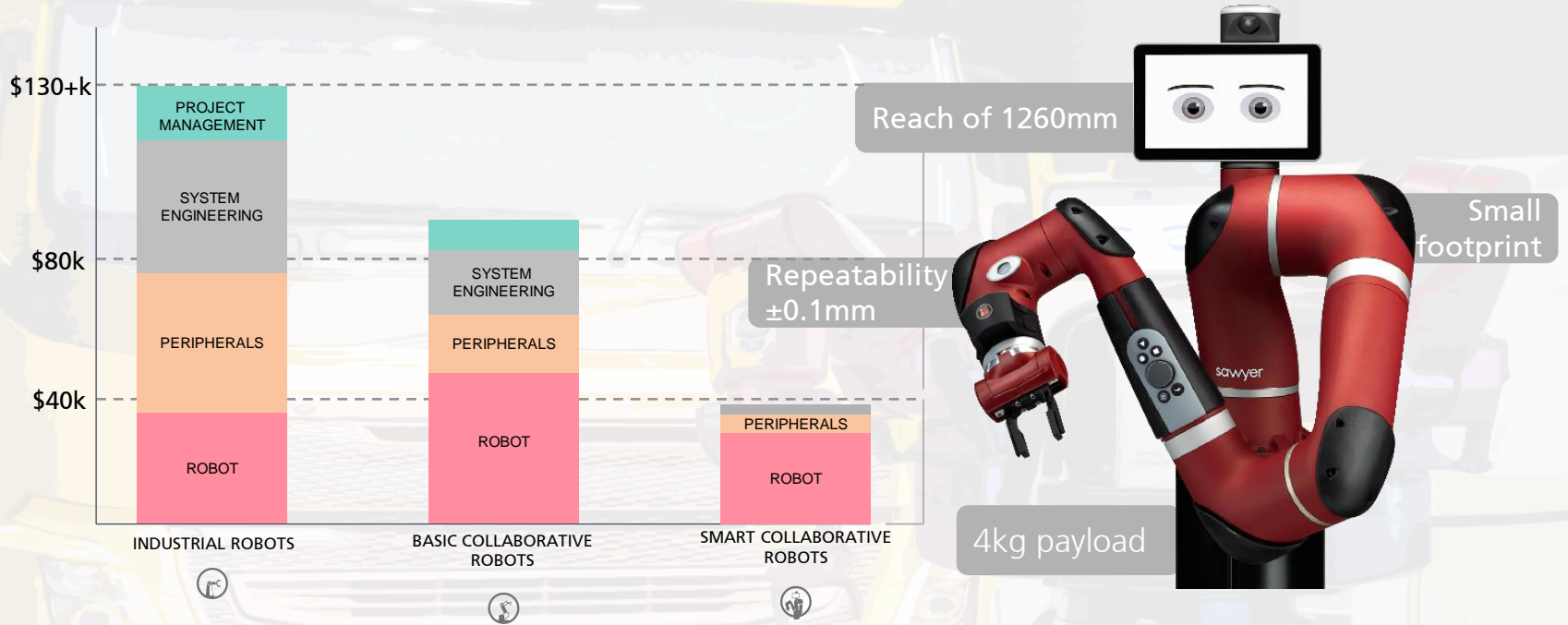
Adaptable

Easy  
Training



# Robotics & Automation

## Dropping cost of automation unlocks new opportunities



Source: Rethink Robotics

# Robotics & Automation

## Collaborative co-pack robots from Rethink Robotics



Source: DHL Trend Research (2017)

# Robotics & Automation

## Assisted order picking robotics from Fetch

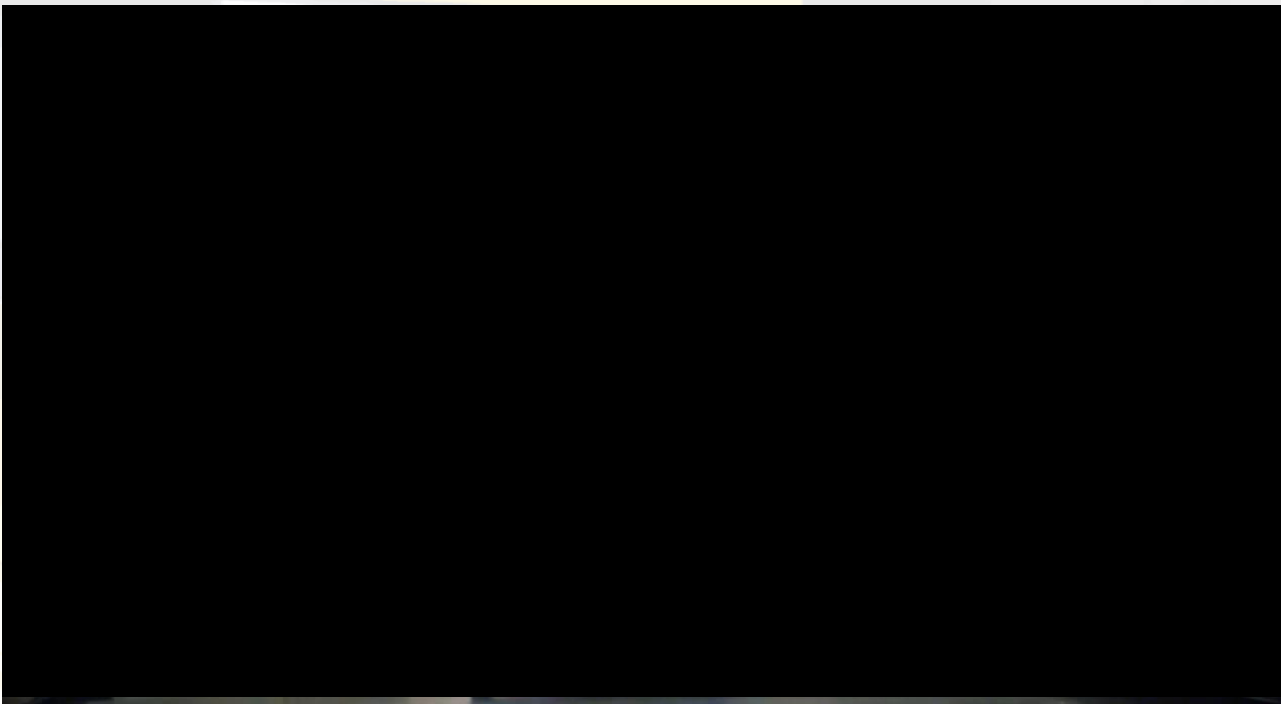


Source: DHL Trend Research (2017)



# Robotics & Automation

## Assisted order picking robots from Locus



Source: DHL Supply Chain (2017)



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## Robotics & Automation: Follow-me robots from Effidence & Thouzer

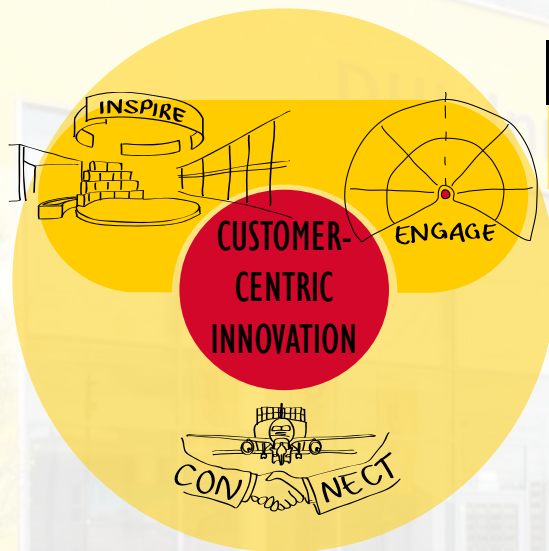


Source: DHL Trend Research (2016)

# To stay ahead of the curve, let's jointly drive innovation

## Innovation Centers

ICs in GER, SG and US serve as key platforms for customer engagement



## Trend Research

Innovation research and pilot projects together with customers & divisions

## DHL Experts & Partners

Wide network of committed subject matter experts at DHL and partners to connect in-depth on innovation





A photograph of the DHL Innovation Center, a modern building with a yellow and red facade and large glass windows. The building is partially obscured by a semi-transparent white overlay. The text "DHL Innovation Center" is visible on the building's facade. The DHL logo is also visible on the right side of the building.

**Let's shape the future together.**



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