



Strategy | Consulting | Digital | Technology | Operations

Münchner Kreis

Smart Services Digital Opportunities and Threats for Manufacturing Industries

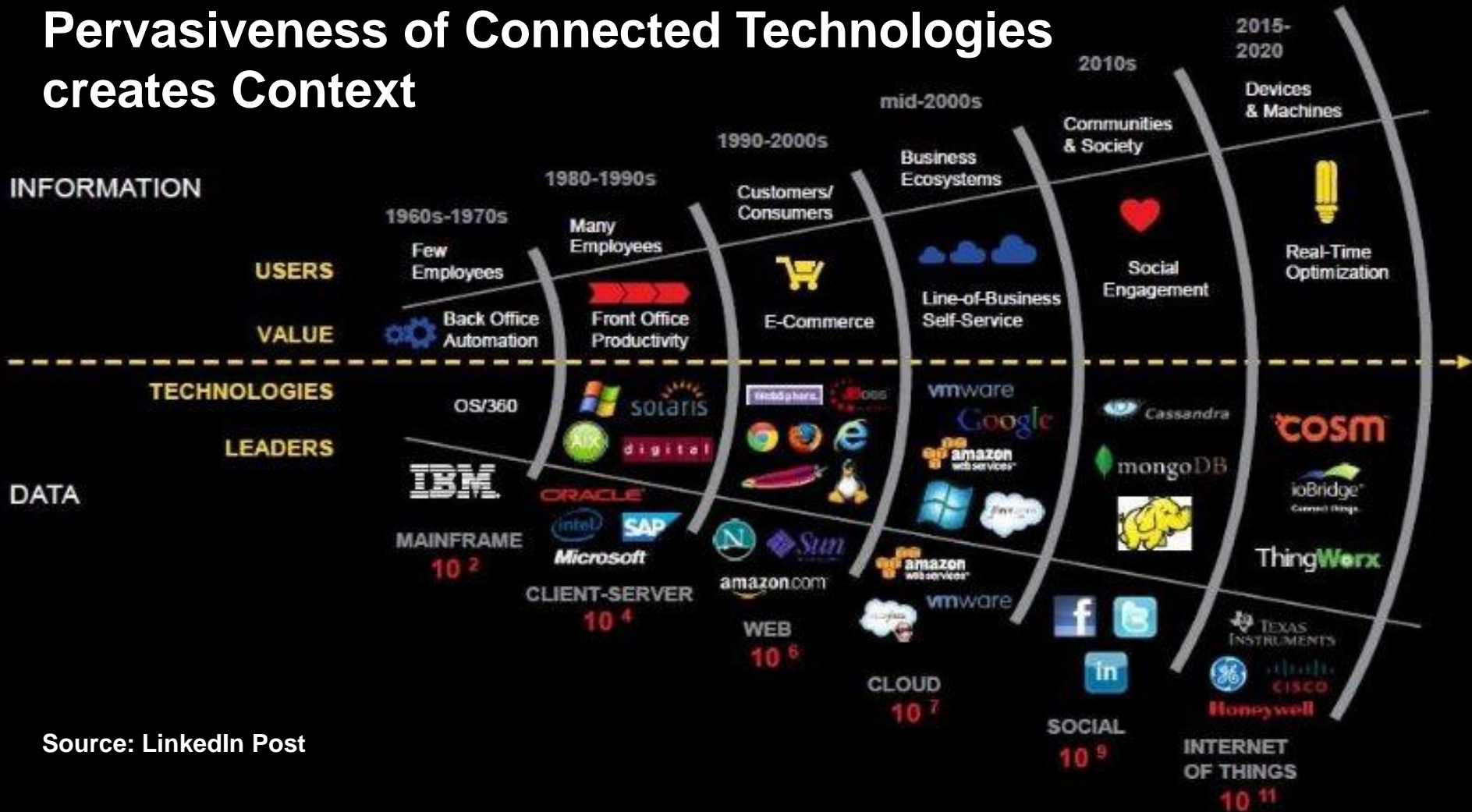
Frank Riemensperger
Chairman of the Holding Board
Accenture Germany

November 24th, 2016 – München



High performance. Delivered.

Pervasiveness of Connected Technologies creates Context



Source: LinkedIn Post

acatech “Digital Thought Leadership created in Germany” Industrie 4.0 and Smart Service Welt



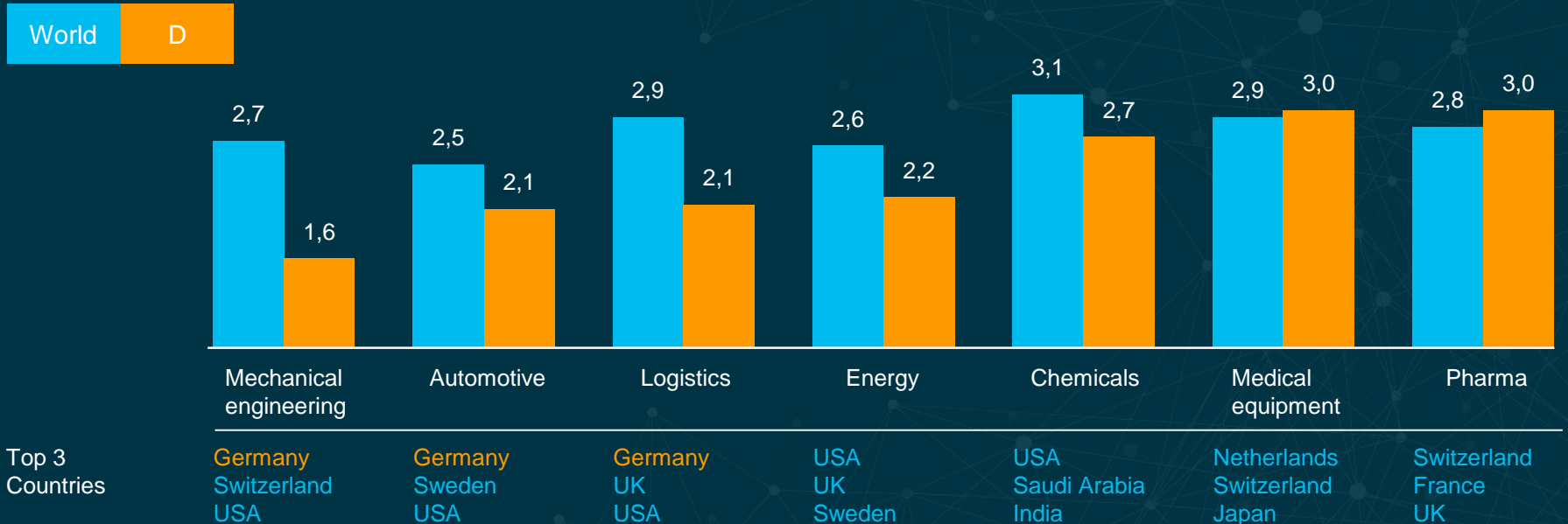
The results reached politicians and influenced policies



- > **Technology competition** Smart Service Welt (50 Mill. / Federal Ministry for Economic Affairs and Energy)
- > **Smart Services** became part of the federal government's **Digital Agenda**, its **Hightech Strategy** and the **coalition agreement**

Source: 2016 Acatech

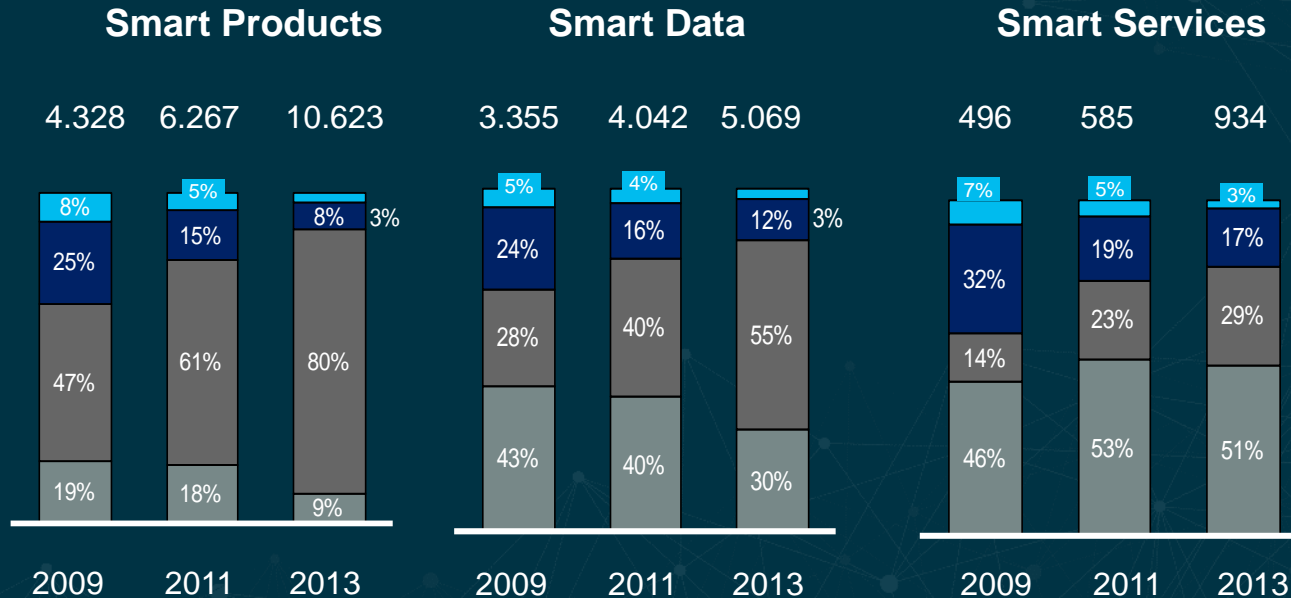
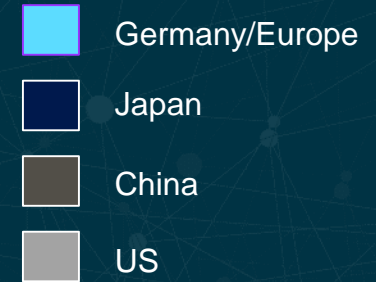
German Lead Industries are in a pole position in terms of Digitalization of their Product Portfolio



Digital competitiveness of G2000 companies by Industry (n=227);

Ratings: 1 = highly digitised, 2 = digitised to some extent, 3 = digitised, 4 = not digitised; based on Accenture G2000 company rankings and Accenture's Digital Index.

Analysis of Patents Development in German/Europe, US, China and Japan



Note: Low share of Smart Services for Germany/Europe does not necessarily mean they do not exist – it may show that IP is not secured like in other regions

Source: Accenture analysis of data from DWPI from Thomson Innovation (© Thomson Reuters 2015),

The **connected** “Smart Product”
is at the core of the change.

Framework

Hyper-Personalization &
New Experiences

Ecosystems & Smart Services

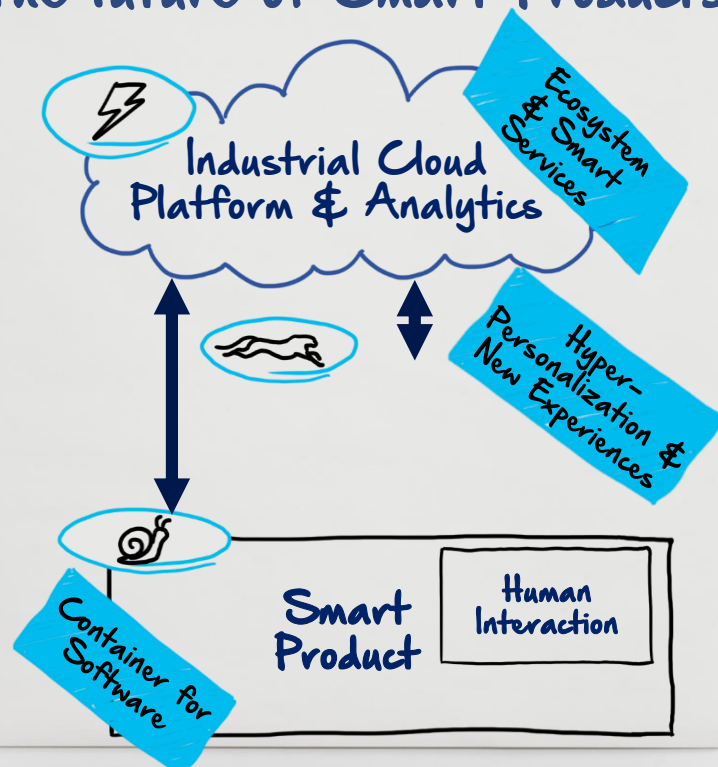
Platforms & Analytics

Smart Products

Engineering & Manufacturing

The combination of “Smart Products, Services and New Experiences” can disruptive business models.

The Future of Smart Products



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Our Vision: Always on. Always driving.
Fully loaded. Never stuck. Never fail. Happy Driver.

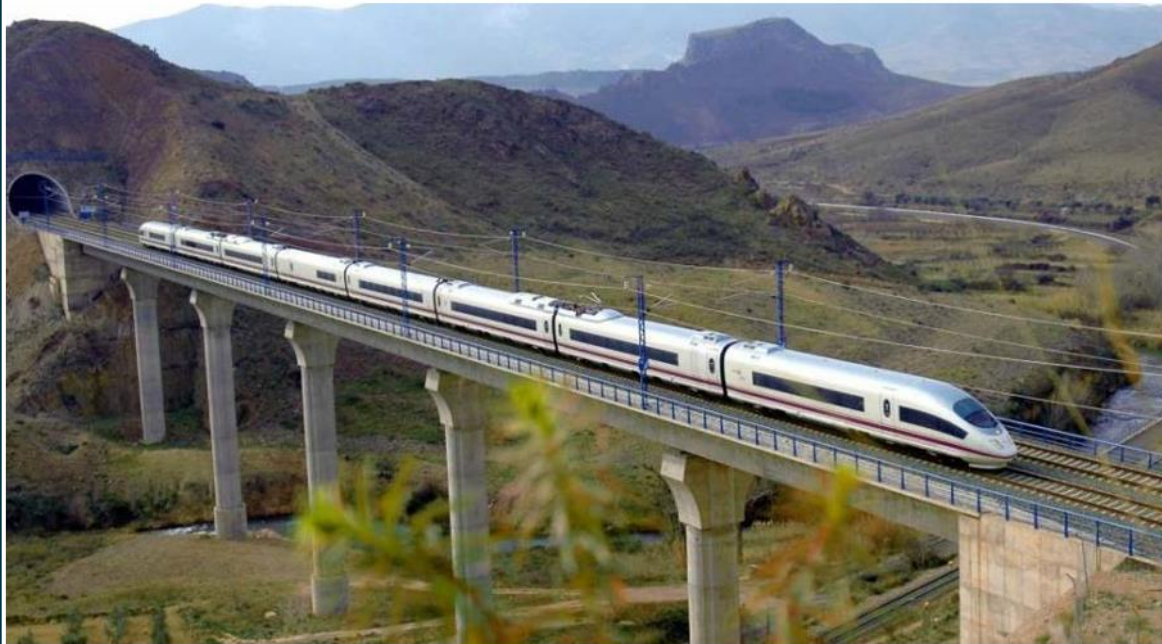
SEAMLESS TRANSPORTATION.
THE TRUCK IS ALWAYS ON AND
COMMUNICATING WITH ALL
OTHER PLAYERS



PREDICTABLE AVAILABILITY OF DRIVER,
TRUCK, TRAILER AND LOAD



Helmut Schütt,
Daimler AG
ProSTEP iViP Symposium
20.4.2016, Stuttgart



- 26 high-speed trains at Renfe Spanish Rail Company (Madrid-Barcelona-Malaga)
- Performance contract with availability guarantee
- Passengers are reimbursed for delays >15 mins
- On-time rate of 99.9%
- 60% passengers switched from aircraft to train

Source: 2016 Siemens Analysts Briefing

The Industrial Platform-Economy will drive new levels of Speed and Agility. Smart Connected Products are a Reality

Roche Blood monitor –

“stay in touch, even when your child is out of reach”



Tesla –

“the car that fixes itself”



GoldCorp –

“tracks location of workers and assets in real-time”

The Industrial Platform-Economy will drive new levels of Speed and Agility. Vertical Industrial Platforms are a Reality



An A380 Airbus grounded awaiting maintenance or replacement parts costs an airline ~\$1.25M per day

Bosch Home Connect –
“Comfort for your Home.
Intelligence of the Silicon Valley.”



The Industrial Platform-Economy will drive new levels of Speed and Agility. Digital Ecosystems in Farming are a Reality

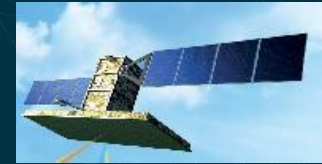
Sensors and Remote Sensing



John Deere demonstrates its AutoTrac™ guidance, which allows the tractors to self-steer and follow pre-programmed routes.



Integrated Electronic Communications

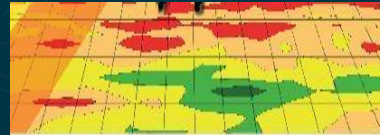


High Precision Positioning Systems



<https://www.washingtonpost.com/news/the-switch/wp/2015/06/22/google-didnt-lead-the-self-driving-vehicle-revolution-john-deere-did/>

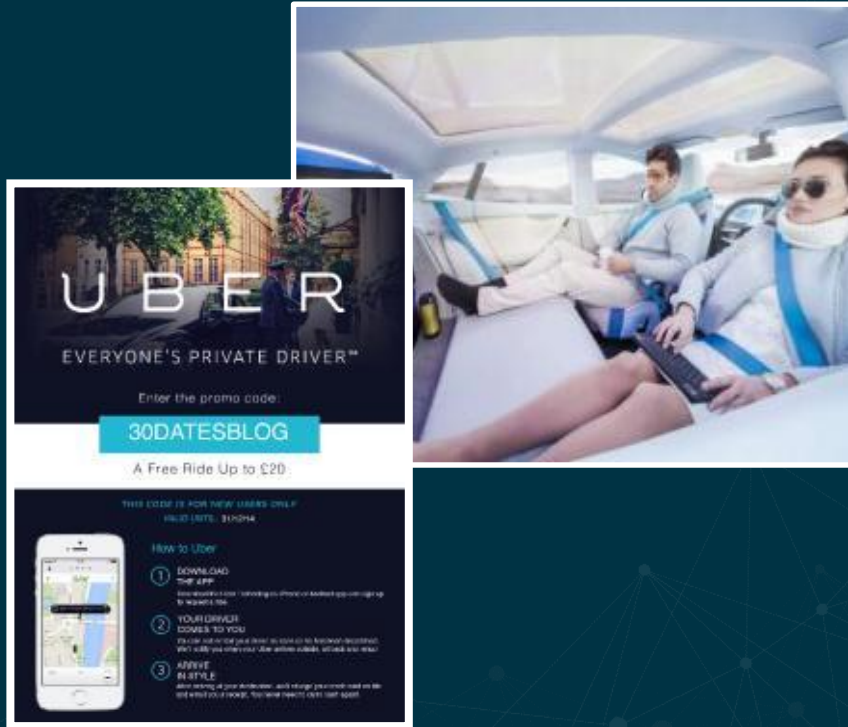
Geomapping



Automated steering systems



Focus Silicon Valley



The advertisement features the Uber logo and the slogan "EVERYONE'S PRIVATE DRIVER™". It promotes a promotional code "30DATESBLOG" for a "Free Ride Up to £20". Below the code, it states "THIS CODE IS FOR NEW USERS ONLY" and "VALID UNTIL 31/03/14". A section titled "How to Uber" includes three steps: 1. DOWNLOAD THE APP, 2. YOUR DRIVER COMES TO YOU, and 3. ARRIVE IN STYLE. To the right, a photograph shows the interior of a futuristic self-driving car with two passengers wearing seatbelts.

UBER
EVERYONE'S PRIVATE DRIVER™

Enter the promo code:
30DATESBLOG

A Free Ride Up to £20

THIS CODE IS FOR NEW USERS ONLY
VALID UNTIL 31/03/14

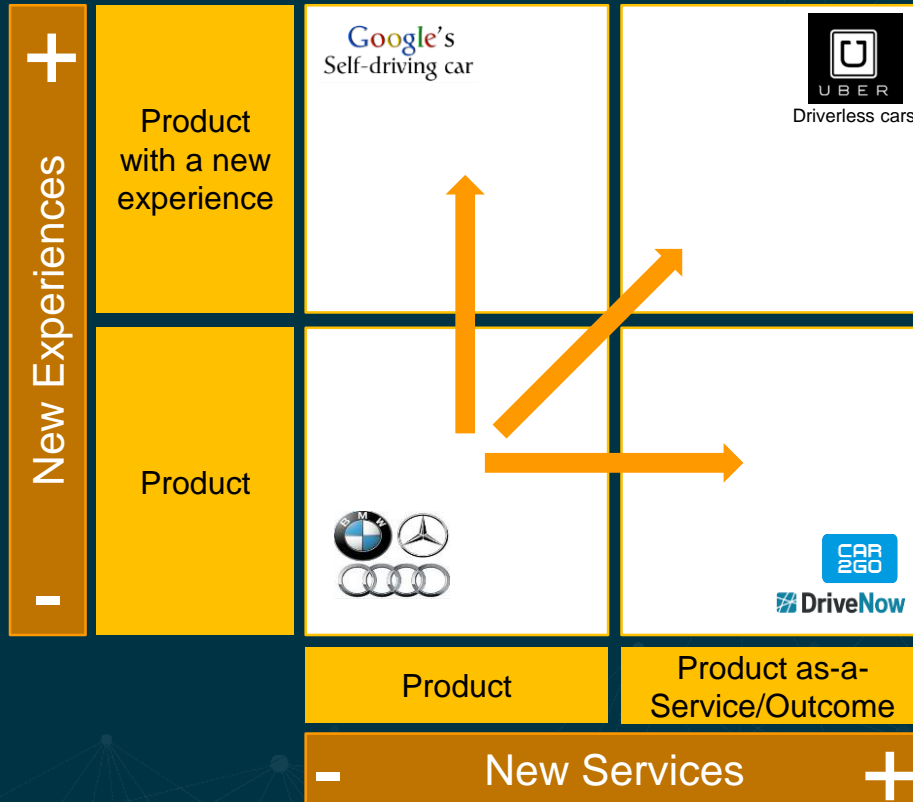
How to Uber

1. DOWNLOAD THE APP
Download the Uber app on your smartphone or tablet to get going in seconds.
2. YOUR DRIVER COMES TO YOU
You can request the car that you want to be taken to your location. Uber will send you the name of your driver and the car.
3. ARRIVE IN STYLE
After getting in your Uber, you will be able to track your ride on the app and see your driver's name and car type. You can request your car type.

Focus of German Industry



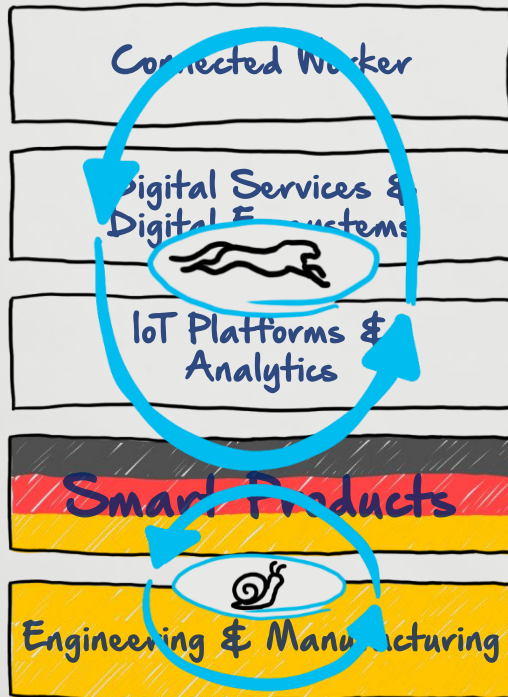
Digital Strategy: Sharpen your business strategy to seize the value of „Smart Products, Services and New Experiences“



The “Smart Product” will become a combination of product features, services and new experiences.

- What are the new product service enhancements?
- What are the new hyper-personalized experiences that redefine your product?
- What is your platform strategy? Platform provider or ecosystem member?
- What is the data strategy in the new?
- What is your target business model?

Organize for two "Cultures"



Rotation to the “New” – A practical guide



1

Digital Culture &
Roadmap

Roadmap

Multiple S-Curves must be managed in parallel

Leverage the Core:

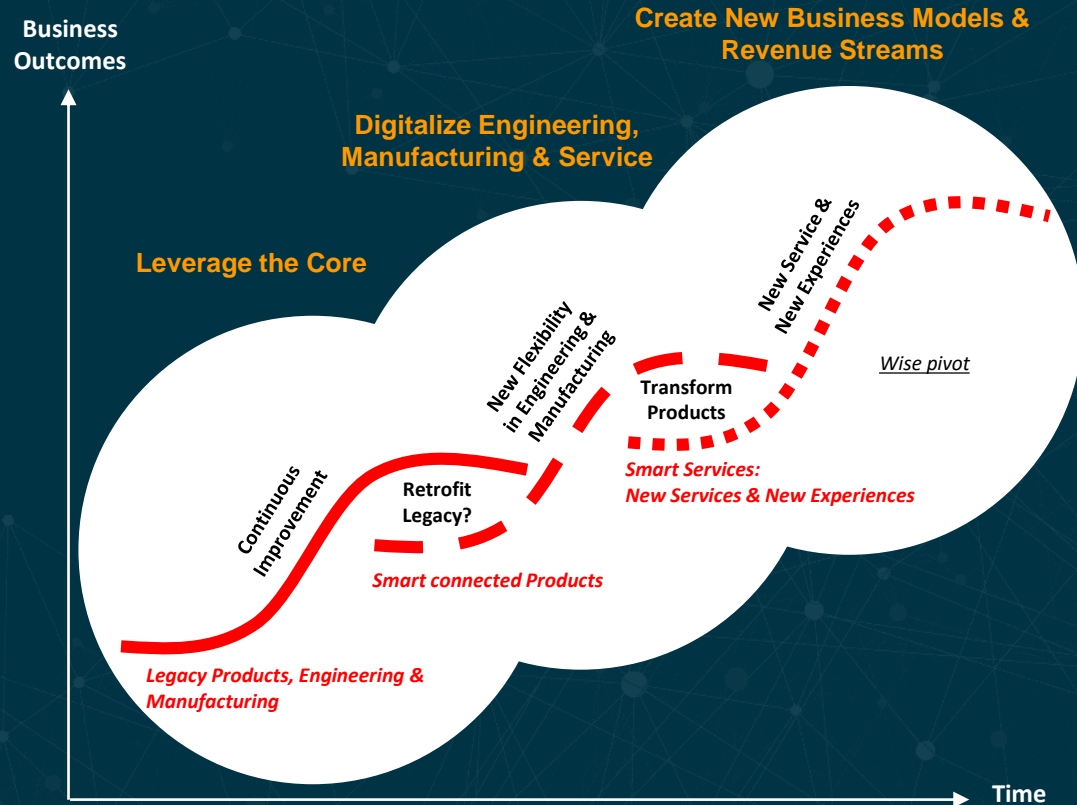
- Extend lifetime of the legacy products
- Cost take out

Digitalize Engineering, Manufacturing & Service

- Incremental innovation
- Exploit potential of the “Smart Connected Products”

Create New Business Models & Revenue Streams

- Transform product architecture into a container for software
- Smart Products & Services & New Experiences
- As-a-Service consumption and outcome based business model



Space to explore the Future

Experience the New – Workshop and Werkstatt

Co-create Innovation – In days instead of weeks and months



Rotation to the “New” – A practical guide



30+ vertical IoT offerings. Many focused on efficiency





High performance. Delivered.
Accenture
Parts
Optimization

SERVICE OPERATIONS AND OPTIMIZATION
AFTERSALES DRIVEN PROFITABILITY
Typical challenges faced by manufacturers:
• Aggressive competition
• Deteriorating loyalty of end customers
• Increasing product and service complexity
• Inefficient resources and costs
APPROACH
CUSTOMER CENTRIC PRICE AND SERVICE
FIELD FORCE ENGAGEMENT
SERVICE MANAGEMENT
AFTERSALES PRICING STRATEGY
SALES GROWTH STRATEGY
NETWORK LOGISTICS
IMPROVED BI & SCADA
INSIGHT PLATFORM
EXPECTED BENEFITS
INCREASE AFTERSALES PERFORMANCE BY 15 TO 30%
Optimize Parts & Service Price Positioning
Increase Network Performance
Improve Cost Management
accenture

CONNECTED INDUSTRIAL WORKER
A NEW LEVEL OF THE CONNECTED INDUSTRIAL WORKER

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A NEW LEVEL OF THE CONNECTED INDUSTRIAL WORKER

INDUSTRIAL ANALYTICS
DIGITAL SUPER PRODUCTIVITY PRODUCTIVITY IMPROVEMENT

INDUSTRIAL ANALYTICS
DIGITAL SUPER PRODUCTIVITY PRODUCTIVITY IMPROVEMENT

VIRTUAL COMMUNITY

DIGITAL FACTORY
DIGITAL SUPER PRODUCTIVITY PRODUCTIVITY IMPROVEMENT

INDUSTRIAL DESIGN THINKING

INDUSTRIAL IoT INNOVATION CENTER

SPEED FACTORY

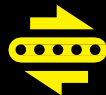
6 HANDS-ON INDUSTRIAL BUILDING BLOCKS AT THE HEART OF THE IIoT CoE EXPERIENCE

VIRTUAL COMMISSIONING



Software simulation of a production line with real control system

DIGITAL FACTORY



Miniature production line with industrial-grade control system

INDUSTRIAL ANALYTICS



IoT cloud-based analytics with integrated miniature production line

CONNECTED DEVICES



Track and analyze device activity at shop-floor level

CONNECTED INDUSTRIAL WORKER

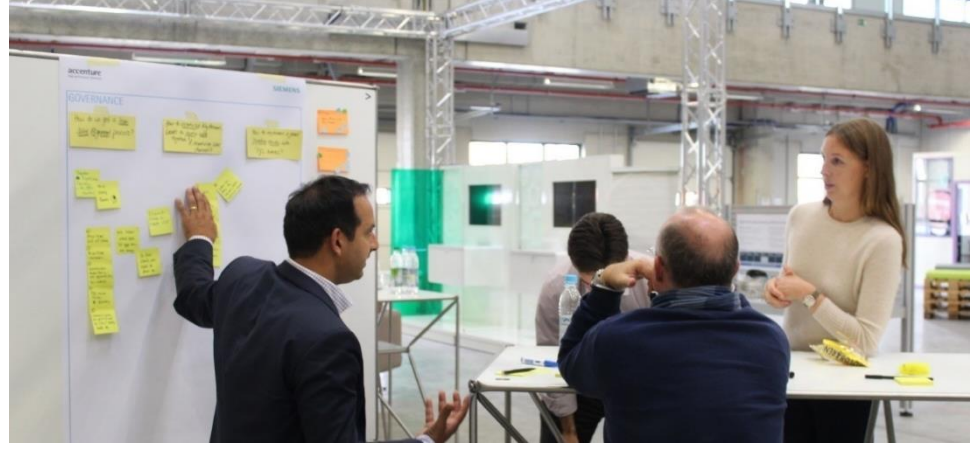


Wearable technology in complex manufacturing

CONNECTED ASSET MANAGEMENT



Connected assets are monitored and controlled via IoT gateways



WORKSHOP WERKSTATT

DISCOVERING REAL BUSINESS OPPORTUNITIES



Prototype – Prototype – Prototype

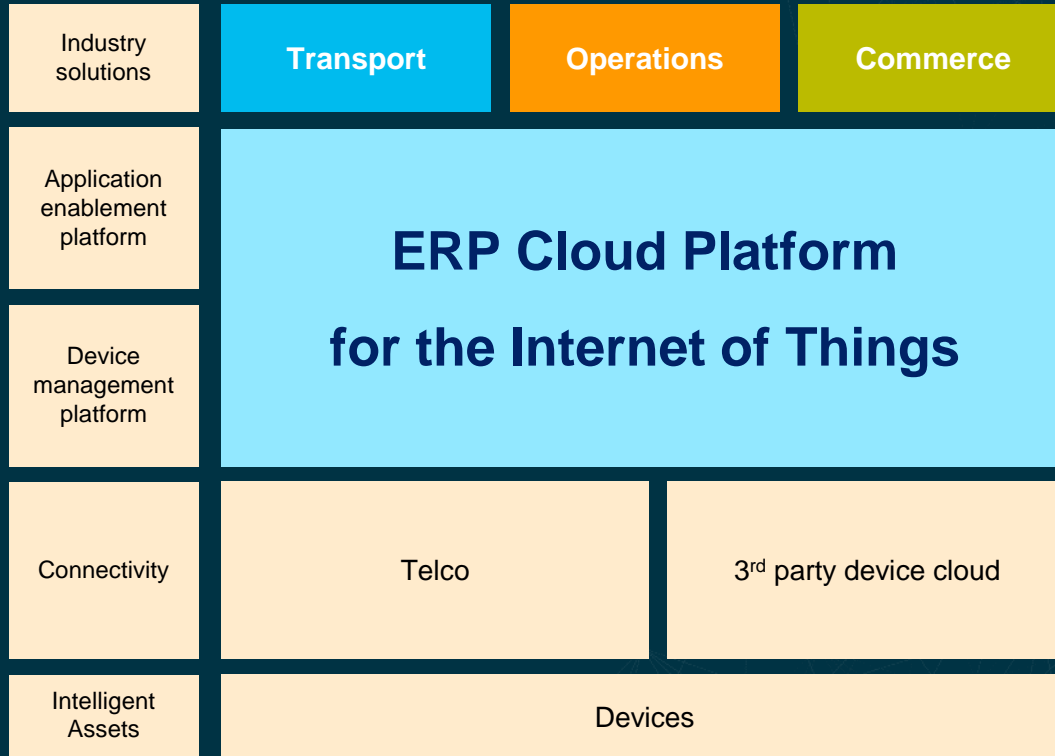
The dashboard displays the following information:

- Map** | **Tasks** (1) | **Chat**
- Map** | **Tasks** (1) | **Chat**
- Address**: France, Rue Albert Joly, 3th Floor
- GPS Coordinates**: Latitude: 48.810405, Longitude: 2.135450
- Contacts**: Phone: +351 213 803 500
- Status**: Green dot
- Equipment ID**: 100000103
- Buttons**: See Indoor Map, OUT OF LOCATION, REQUEST REFILLING, REQUEST MAINTENANCE
- TOP SELLING COFFEES**: Cappuccino, Coffee, Decaffeinated, Espresso
- NR OF COFFEES PER DAY**: Bar chart showing sales from Mon to Sun.
- CASH IN THE MACHINE**: 169€ (Max: 150€)
- WATER PRESSURE (Bars)**: Gauge
- ENVIRONMENT TEMPERATURE (°C)**: Gauge
- DOCUMENTATION**: Section header

Back | There is 1 task for this machine | **DISMISS** | **GO TO TASKS**

Solution up
and running in
less than 4
weeks

The Future of ERP



The company data sits in the ERP systems.

Architect your future Enterprise Architecture to optimize real-time access and availability of your data.

Rotation to the “New” – A practical guide



A hand holds a tablet in the foreground, which displays a factory floor with yellow robotic arms. Overlaid on the left side of the tablet screen is a data dashboard with a semi-circular gauge and a waveform graph. The background is a blurred industrial setting with large yellow robotic components. The image is overlaid with a purple-to-blue gradient on the right and bottom-left sides.

AI POWERING SMART SERVICES

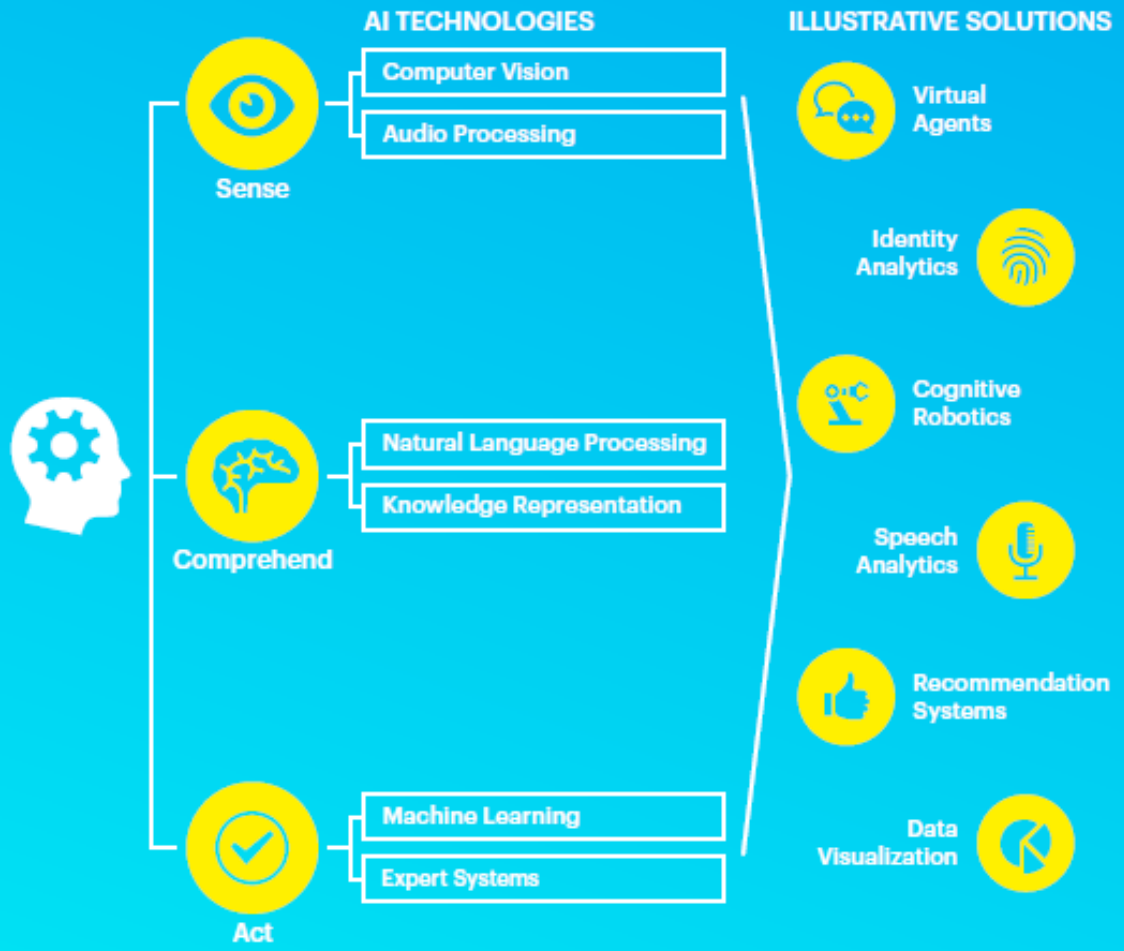
SENSE
COMPREHEND
ACT
LEARN



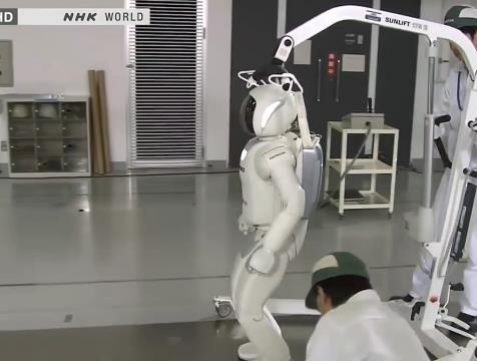
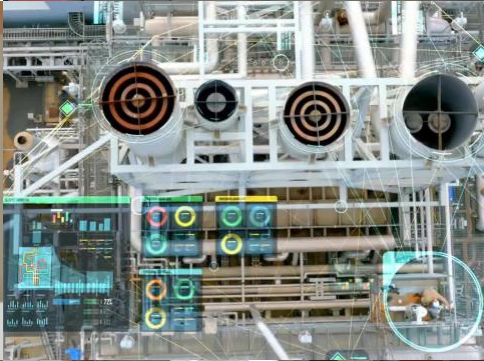
Artificial Intelligence

Computer systems able to perform tasks normally requiring human intelligence

Emerging AI technologies



Source: Accenture analysis



The “Connected Worker“ drives future Productivity

Human and Machine become colleagues

Existing



New



AI IS DISRUPTING WORK AND THE WORKFORCE



1 How work is organized

Digital breaks us free from traditional, rigidly defined jobs and the organization of work



2 What work is performed

Digital enriches and radically augments work



3 Who performs the work

Digital democratizes the workforce



4 Why, when, and where people work

Digital employees ask for a new talent value proposition

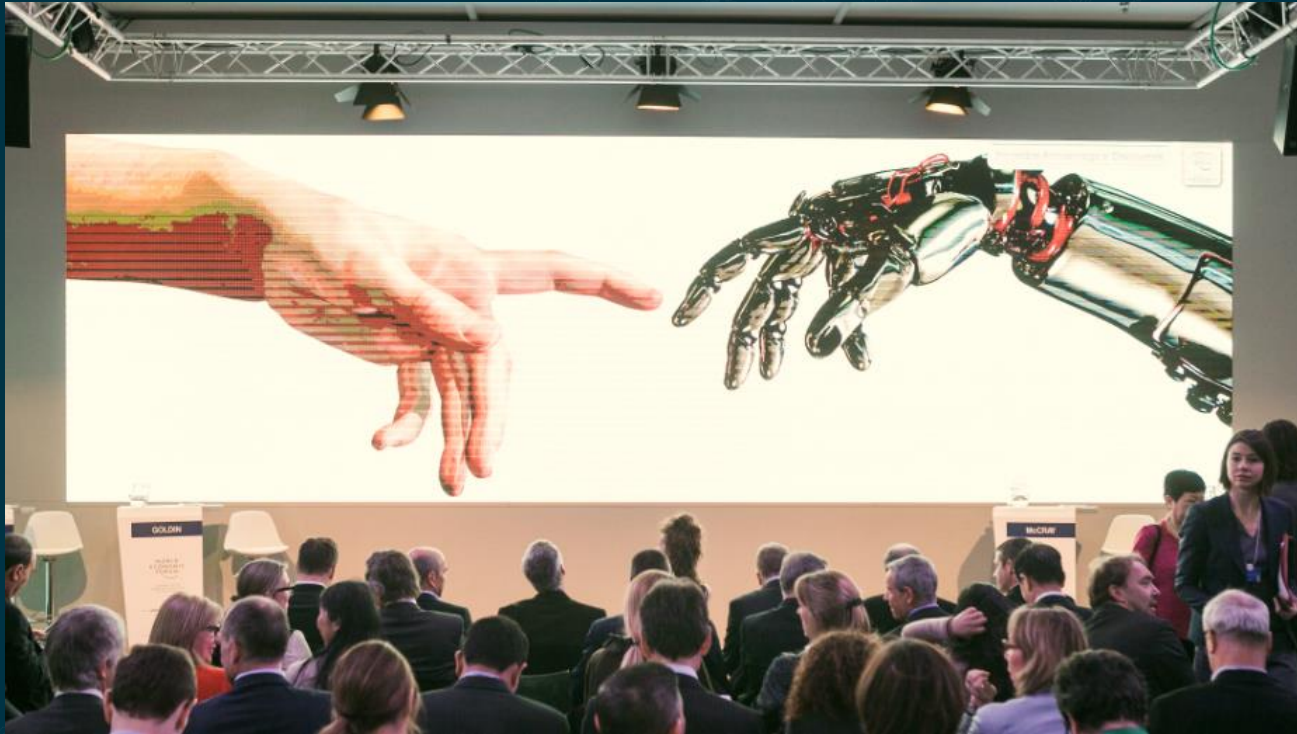


5 How work is led and managed

Digital leaders orchestrate networks, encourage experimentation, and integrate diverse talent

People First!

German Industry will not go Digital without the Workers



Your road to IoT – A practical guide





Power and productivity
for a better world™ **ABB**

The Platform Economy is all about New Experiences



When Wearable Tech Saves Your Life



MC10 Inc. "Biostamps"



Philips Watch is a medical device



Who will win the B-to-B „Platform War“ ?



Create your platform ecosystem.

Examples

- HERE
- Mindsphere
- Monsanto
- AMADEUS
- Teamply
-

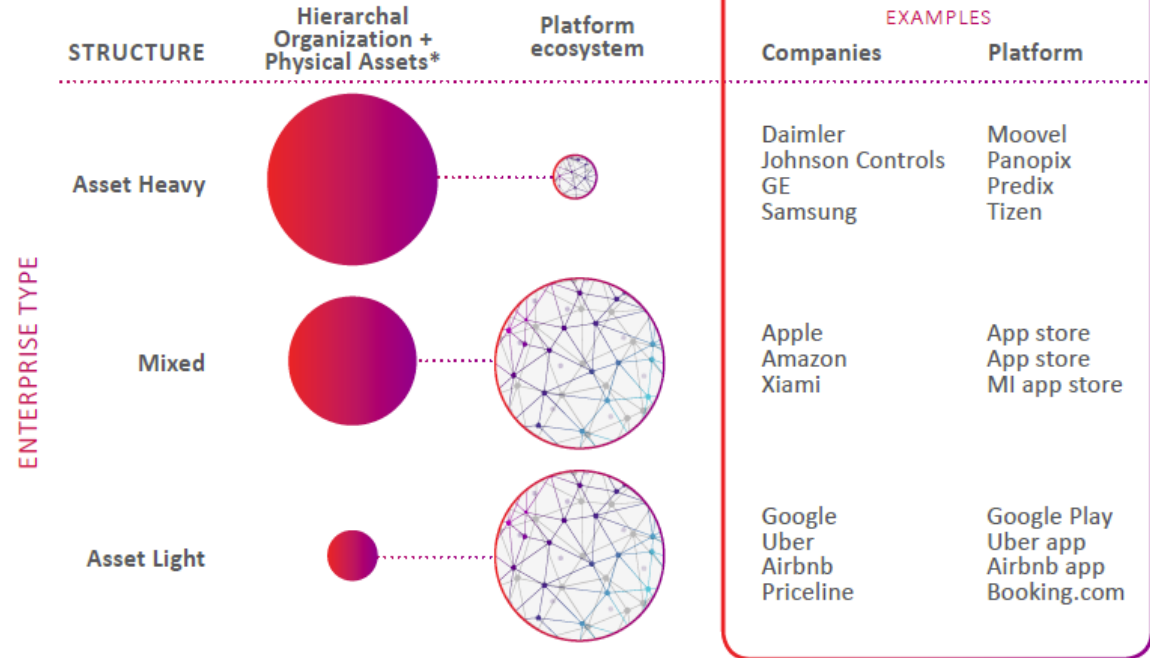
Digital ecosystems evolve around **digital platforms**

Smart Services are created in digital ecosystems

Competition between companies is replaced by competition between **dynamic digital ecosystems**

German HQs must win the Platform Ecosystem race

PLATFORM BY ENTERPRISE TYPE

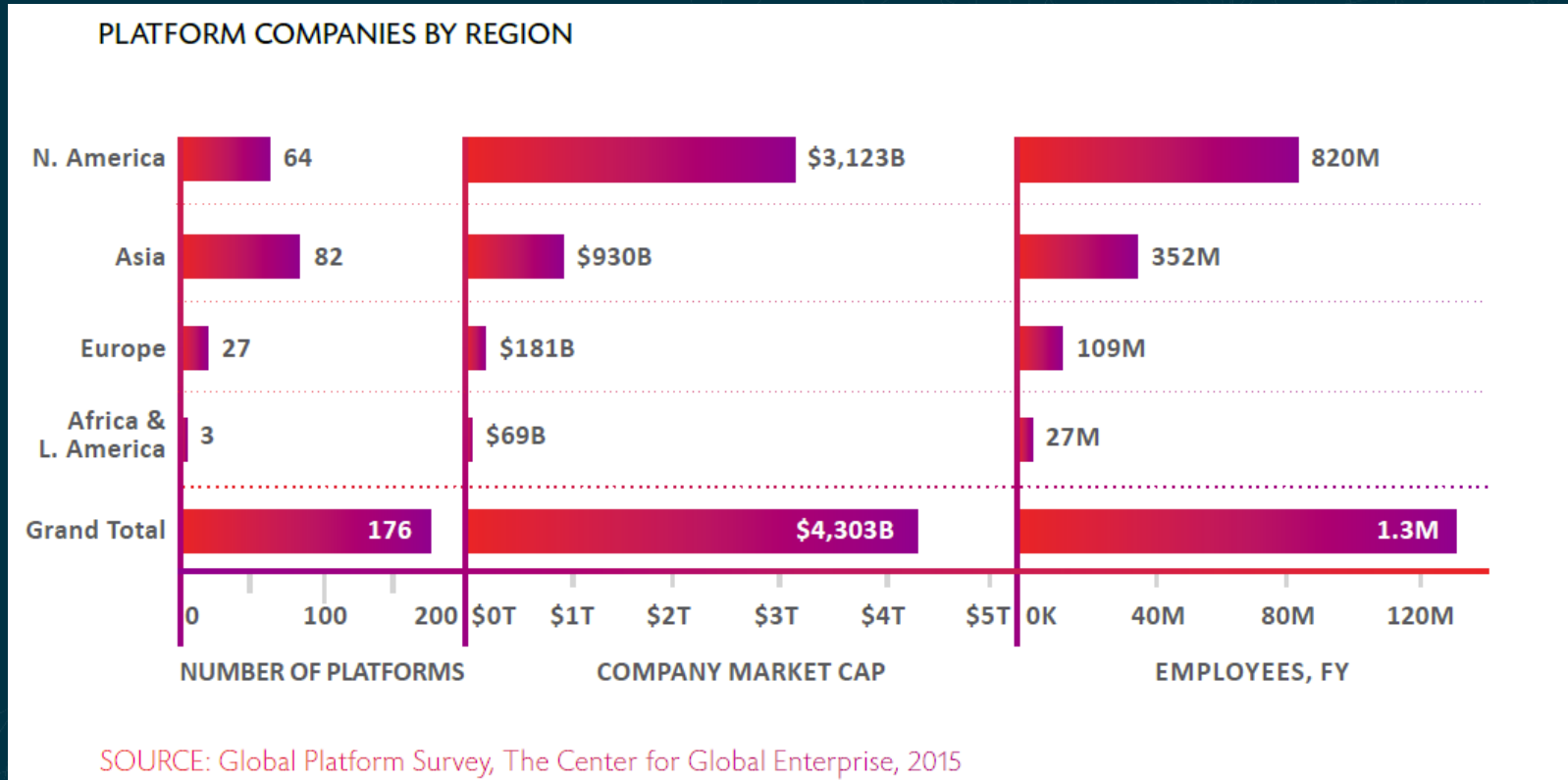


SOURCE: Authors, 2015

FIGURE 9

* Includes HQ, other rooftops, retail outlets, manufacturing plants, service shops, etc.

The Industrial Platform & Ecosystem race has started a while ago



New Technologies drive further transformation of value chains

New Technologies (almost) production ready



5G Networks:

**Unbundle
Operations Control**



3D Printing:

**Unbundle
Manufacturing**



Blockchain:

**Unbundle
Banks and many others**



Strategy | Consulting | Digital | Technology | Operations

A large, stylized orange chevron graphic pointing to the right, composed of two parallel lines that meet at a point on the right side.

High performance. Delivered.