

# Embracing the Silicon Valley challenge


Current state of the supplier  
industry and how to navigate  
the next industry disruption



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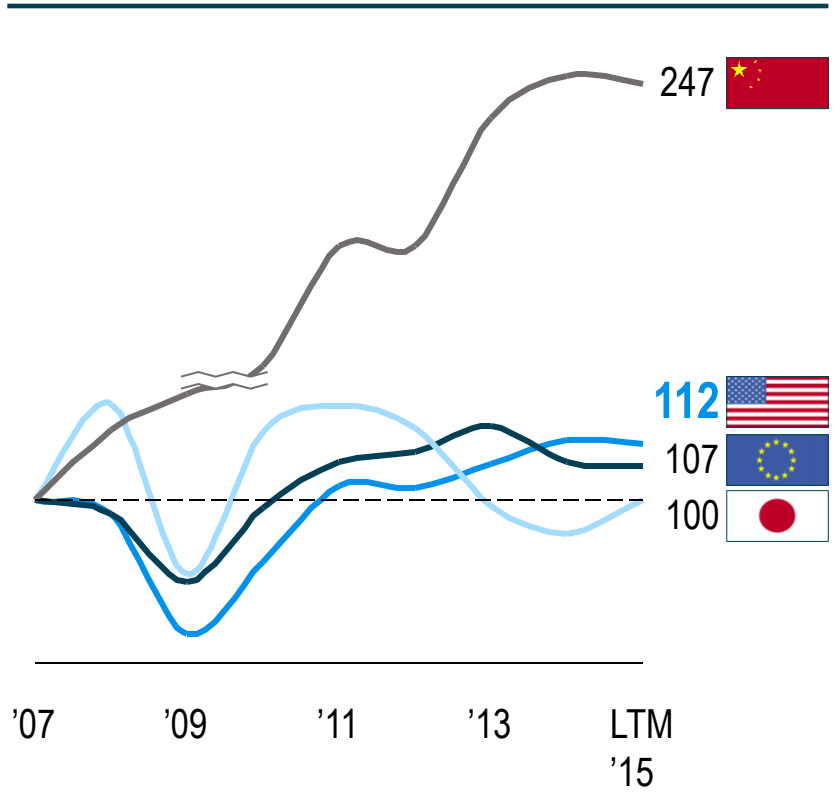
A. Pulse check of the  
US supplier industry  
– A new crisis  
ahead?



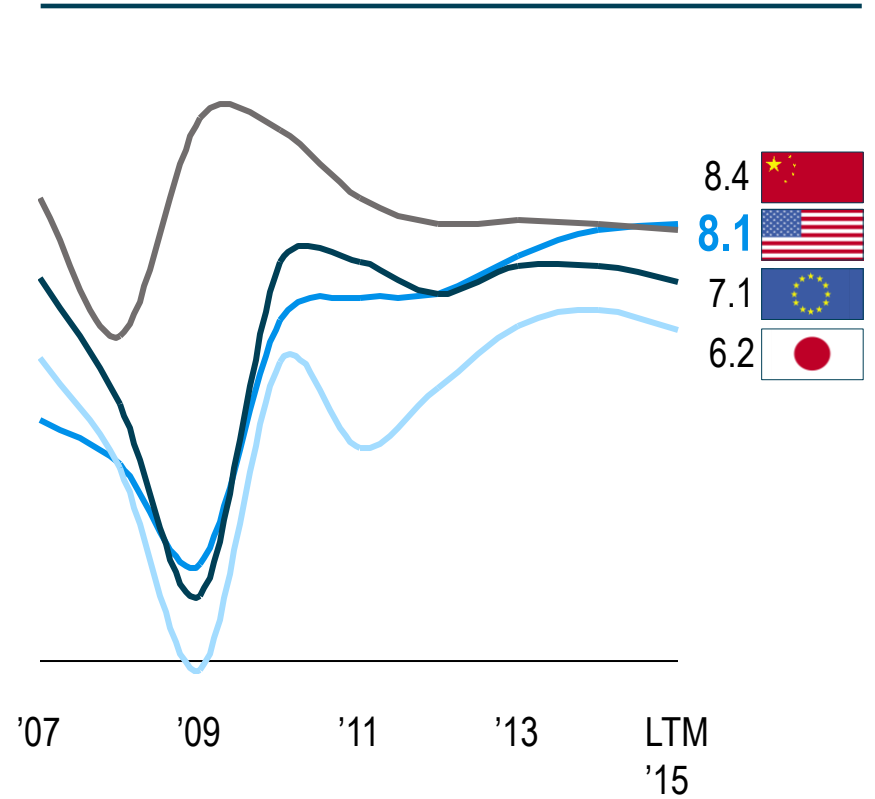
# Growth has leveled out in all major auto producing regions – revenues and margins are stagnating

Income statement indicators – Supplier by HQ region

**Revenue growth [2007=100]**



**EBIT margin [%]**

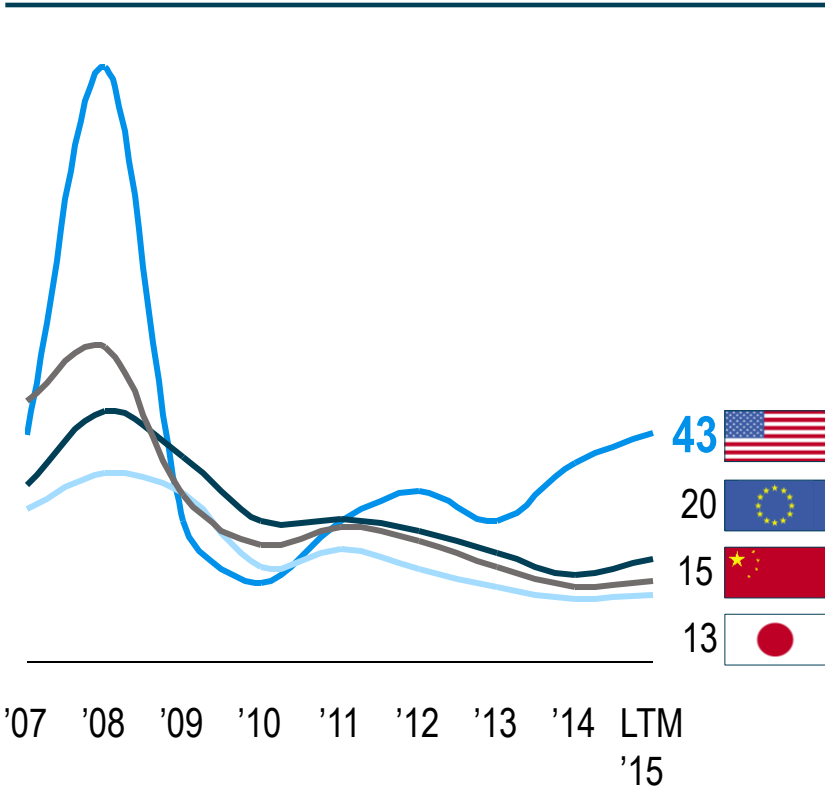


Note: LTM = Last twelve months

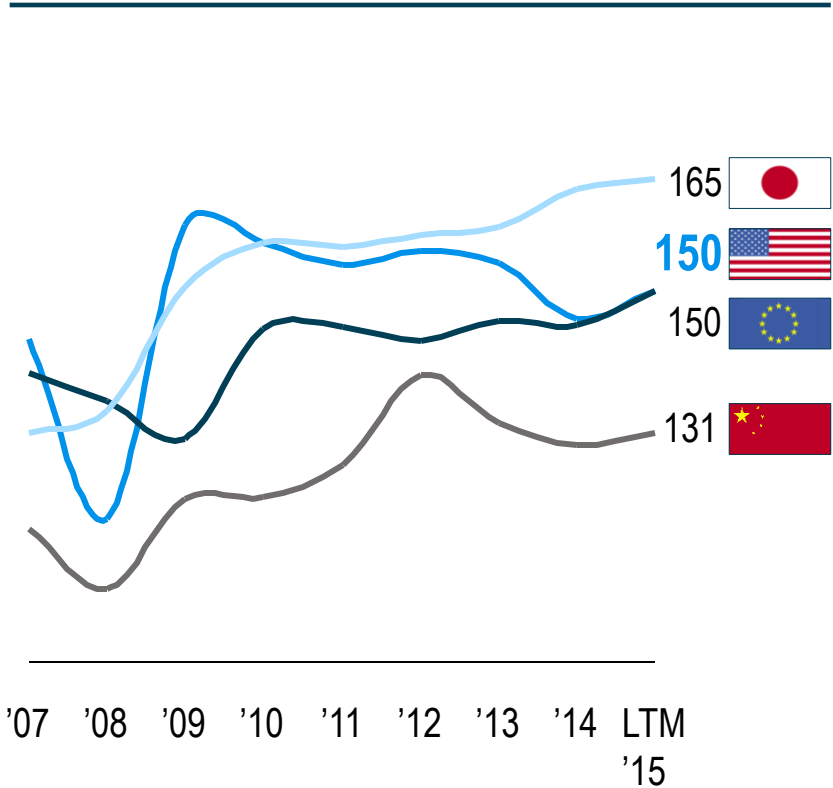
# With cheap money and healthy cash reserves, US suppliers have been leveraging up their balance sheets ...once again

Balance sheet positions – Supplier by HQ region

**Net debt/book equity [%]**



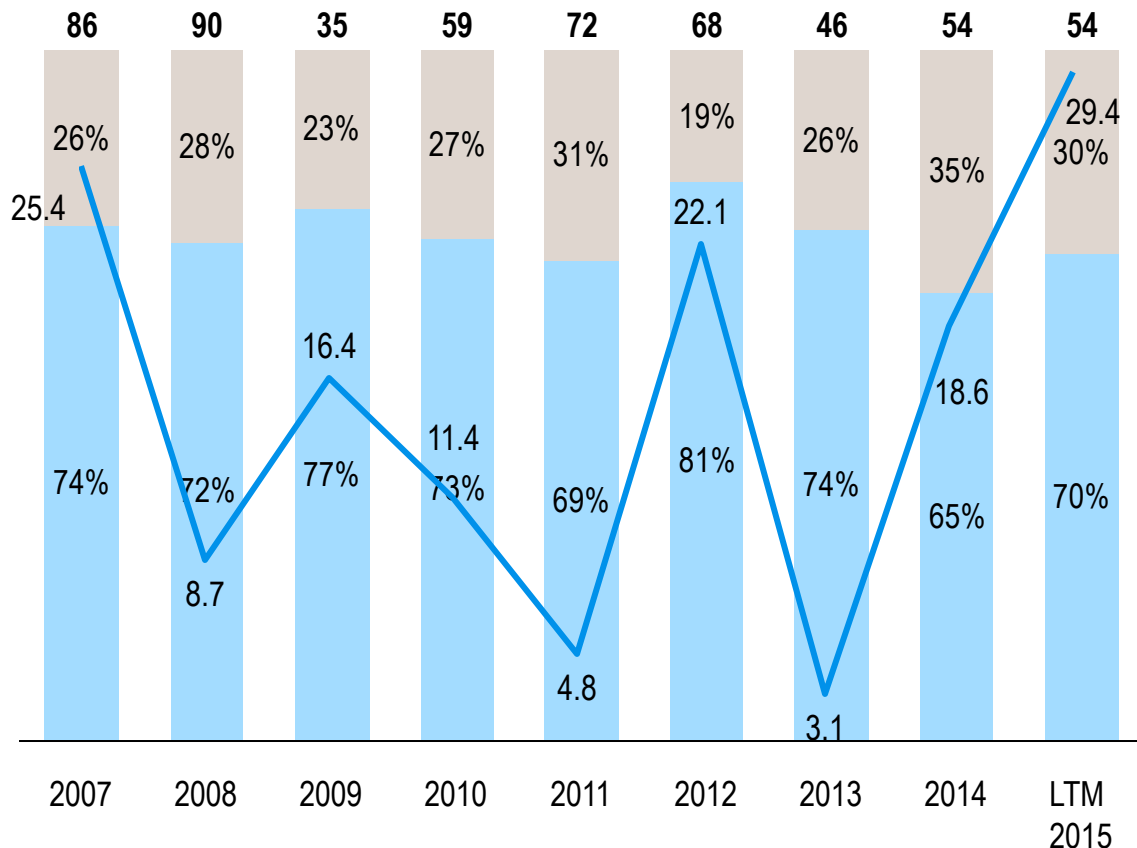
**Current ratio [%]**



Note: LTM = Last twelve months

# Globally, abundant and cheap cash is spent on an unprecedented wave of M&A activities...

## M&A activity in the supplier industry



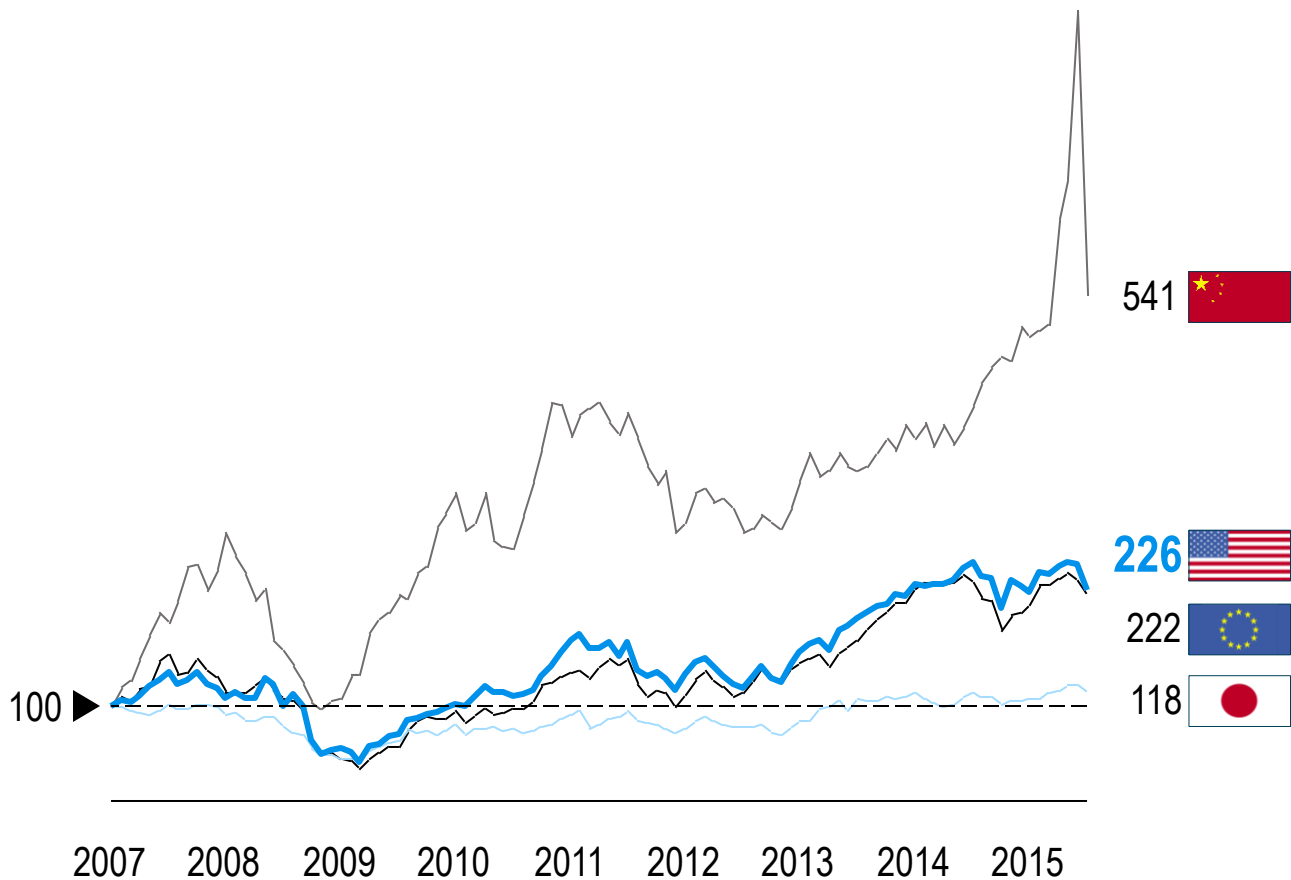
- > The value of deals closed in the last 12 months exceeded the value of 2007, previously considered a record M&A year
- > The average size of deals in the last 12 months has exceeded that of the past 8 years
- > The largest deal in the last 12 months was ZF acquiring TRW for USD 14.5 billion, 2007 was marked by a similar large acquisition of VDO for USD 15.6 billion

■ # of transactions in NA ■ # of transactions in the ROW — Disclosed M&A transaction value [USD bn]

Note: LTM = Last twelve months; transaction region is identified by the HQ of the acquirer

...whereas North American suppliers continue to use cash on "stock cosmetics" to increase shareholder return

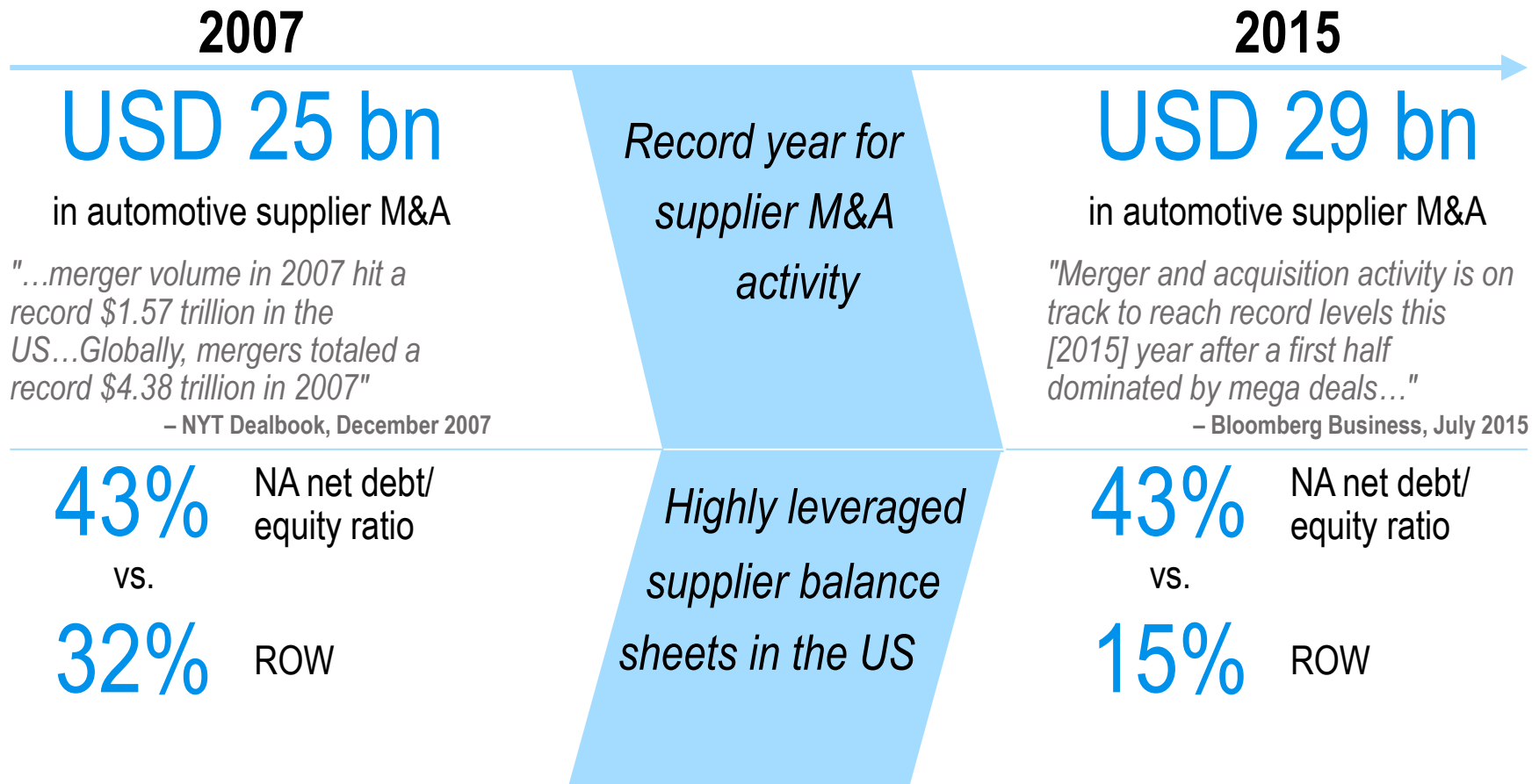
Market cap growth index by region [2007=100] – Supplier by HQ region



- > Large suppliers including Lear, BorgWarner, Visteon, WABCO and Delphi have announced large stock repurchase programs, and increased dividends, driving up their market valuations
- > However, increasing uncertainty and volatility is fueling higher investor skepticism and this method of market cap growth is not sustainable

Looking back, it is hard to avoid a sense of a déjà vu – the industry is no longer "playing safe"

Have we seen that before?





# Different story and context, but the industry is (yet again) at the verge of a life-threatening challenge

Operational vs. strategic challenges

## 2007 Operational/financial challenges



Excess capacity



Excess overhead



Unprofitable businesses



Excess headcount

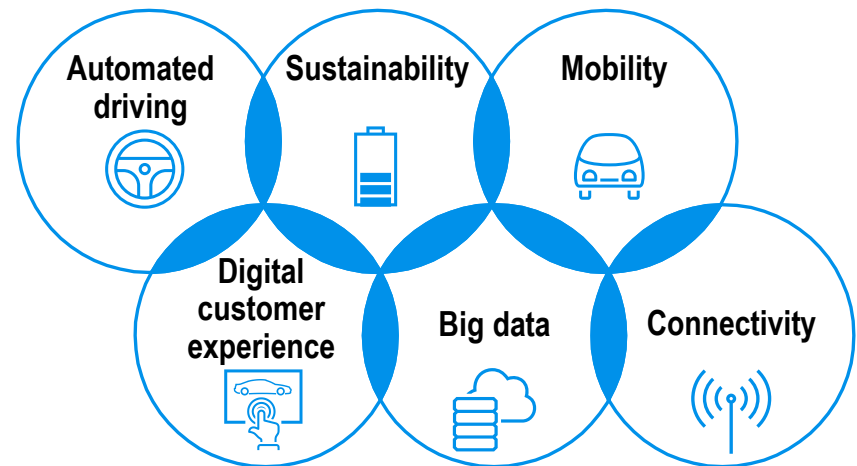


Unaligned product portfolio

Operational & financial challenges were addressed during the financial crisis – Industry fundamentals are now in good shape

## 2015

**DISRUPTIVE** trends and entrance of **NEW PLAYERS**



Now suppliers' challenges are being defined by the convergence of disruptive trends and entrance of new players reshaping the industry

B. New challenge from "Out West" – Silicon Valley is poised to disrupt the industry and to challenge suppliers' legacy business models

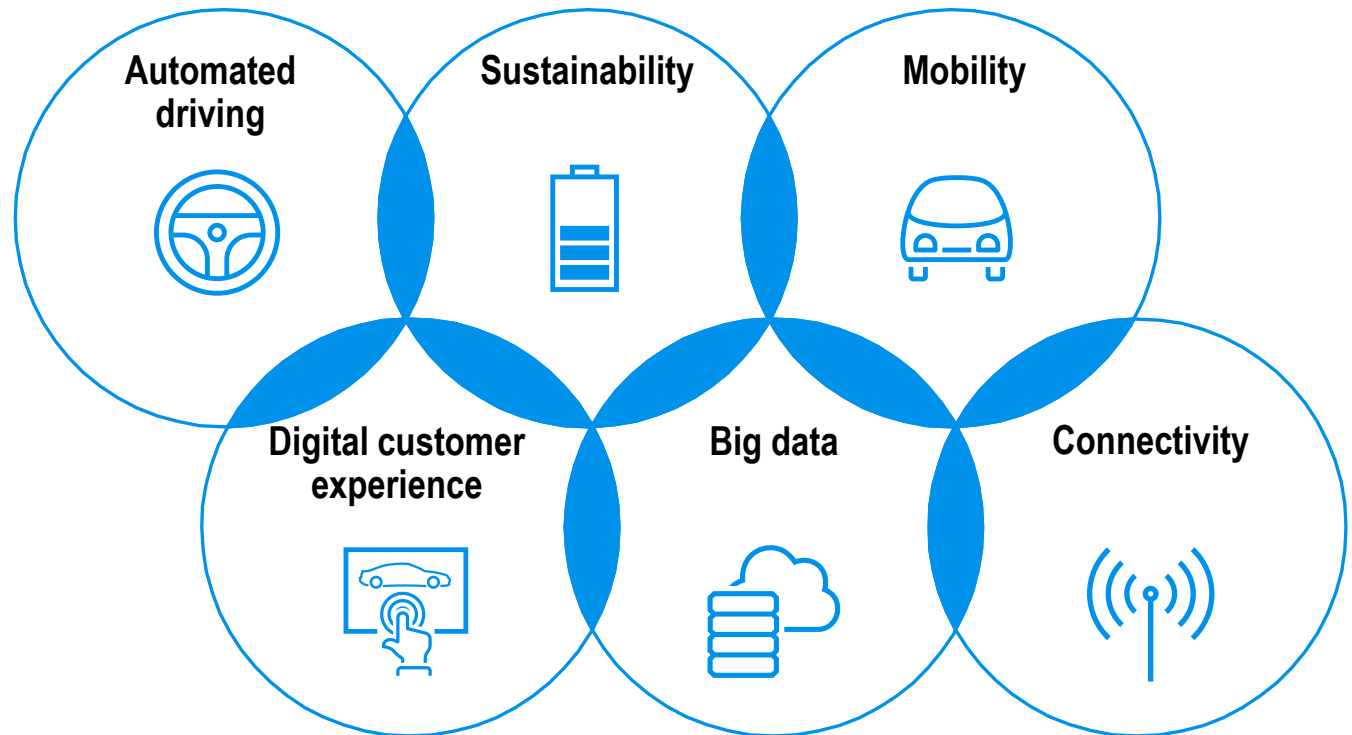


# Disruptive trends are converging, significantly reshaping the automotive landscape and traditional value chain dynamics

## Key automotive trends and disruptions

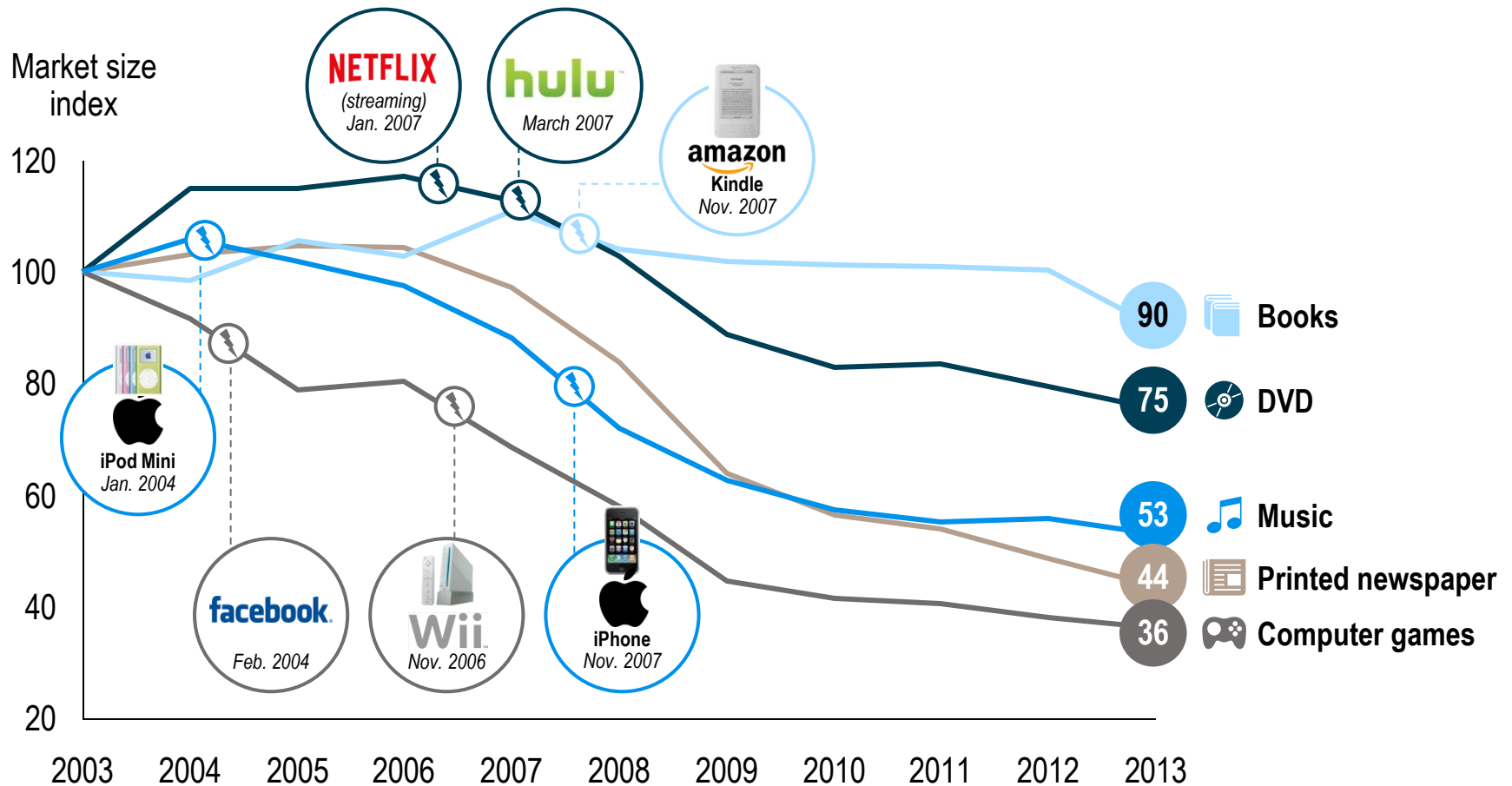
### Major disruptions

- > Re-prioritizing of **customer expectations** & buying criteria
- > New and open **ecosystem**
- > Innovation in **business models**
- > Change in **value centers**
- > Fast **development cycles**



# A set of technology players has already disrupted multiple industries in the past

Cultural goods illustration: US market [2003 – 2013; Base 100]



# Now these players are knocking at the door of the automotive industry in a very bold way

## Tech Giant's interest in the automotive industry

- “If **Apple** does launch a car it's going to have the same disruptive effect on the Fords and BMWs of this world as the iPhone did to the Nokias and Blackberrys.”  
*iDisrupted, 2015*
- “Technological differences are really just the beginning of the disruption **Google** has planned. In **Google's** world, you won't just quit driving cars, you'll also quit owning them”  
*Bloomberg Business, 2015*
- “We want people to have an **iPhone** experience in their car.”  
*Tim Cook, WSJ Digital Live conference, 2015*
- “**Google** doesn't want to sell you a consumer product, but a mobility service.”  
*Sebastian Thrun, Stanford professor of artificial intelligence for Bloomberg, 2015*
- “With a fleet of just 9,000 autonomous cars, **Uber** could replace every taxi cab in New York City — passengers would wait an average of 36 seconds for a ride that costs about \$US0.50 per mile...”  
*Business Insider, 2015*
- “**Amazon's Alexa** will be a serious competitor to all incumbent automotive infotainment and HMI suppliers very soon.”  
*Tom Wendt, Roland Berger, 2015*
- “The dark-horse in this new race may be **Samsung**, which according to Thomson Reuters has ‘the largest and broadest collection of patents in the automotive field including a very large interest in batteries and fuel cells for next generation vehicles.’”  
*Time, 2015*

# They bring business concepts and thinking that are fundamentally different from the traditional automotive mindset

Time needed to sell one million units

## 'Legacy' Automotive industry

Nissan Altima 4<sup>th</sup> gen  
(2007-2012)

Ford F-150 12<sup>th</sup> gen  
(2009-2014)



3.2

2.7

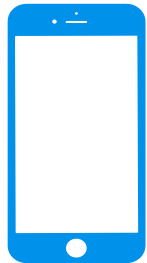
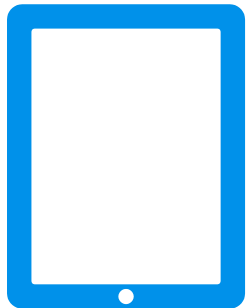
years



2 0.5  
days

iPad mini  
(2012)

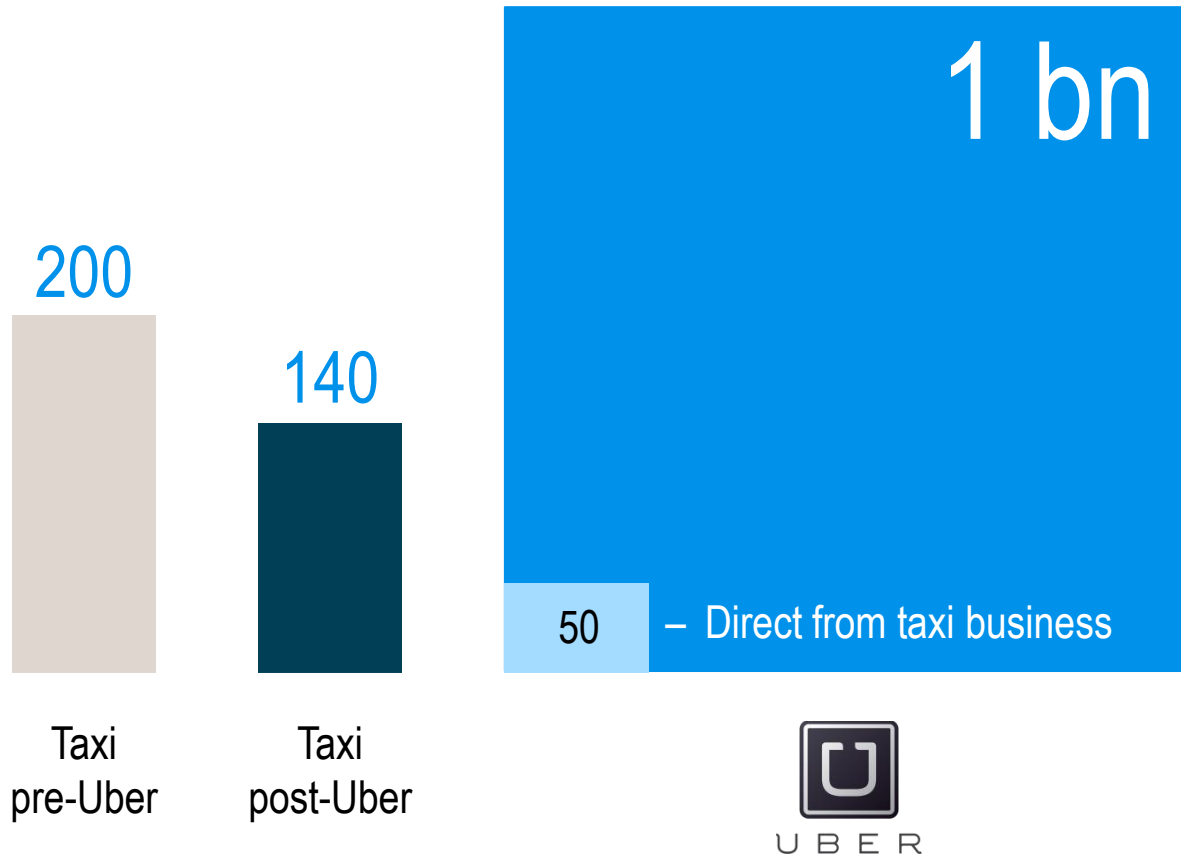
iPhone 6  
(2015)



'New' players

# There is no doubt that this disruption is real – And it is impacting players in the entire ecosystem

SFO metro area – Taxi market revenues p.a. [USD m]



- > Proof of taxi's **failure to satisfy** mobility demand
- > New **market created** – at the expense of all players
- > Furthermore: **Uber** developing the **car of the future** with **Carnegie Mellon University**, not with Detroit 3

# There are four unique characteristics that allow tech giants to disrupt the auto industry and thus threaten incumbent suppliers

Tech giants' "keys" to disruption and challenges imposed on traditional suppliers

1



## Ecosystems

Tech giants are able to derive value from multiple industries – as well as the intersection of these industries, while automotive suppliers rely on OEMs as their only source of value

2



## Scale

Tech giants' interconnected products that share technologies give these players major economy of scale effects that individual auto suppliers will never match

3



## Services

Services offered by tech players are expanding the very definition of service in the auto industry and are allowing for massive valuations with no assets

4



## Speed

Tech giants have set the pace consumers expect their electronics to advance at – and it's much faster than the traditional automotive vehicle cycle



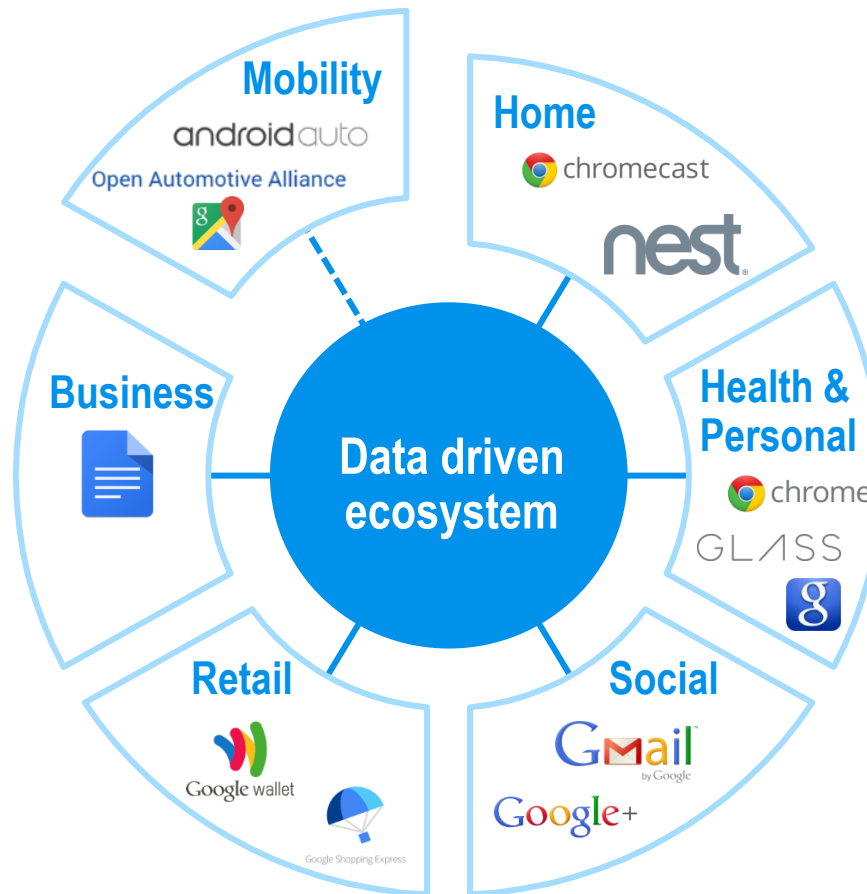
# Google is viewing the entire automotive industry in context of its data-driven ecosystem

## Google's Ecosystem

### Google's mission

To organize the world's information and make it universally accessible and useful.

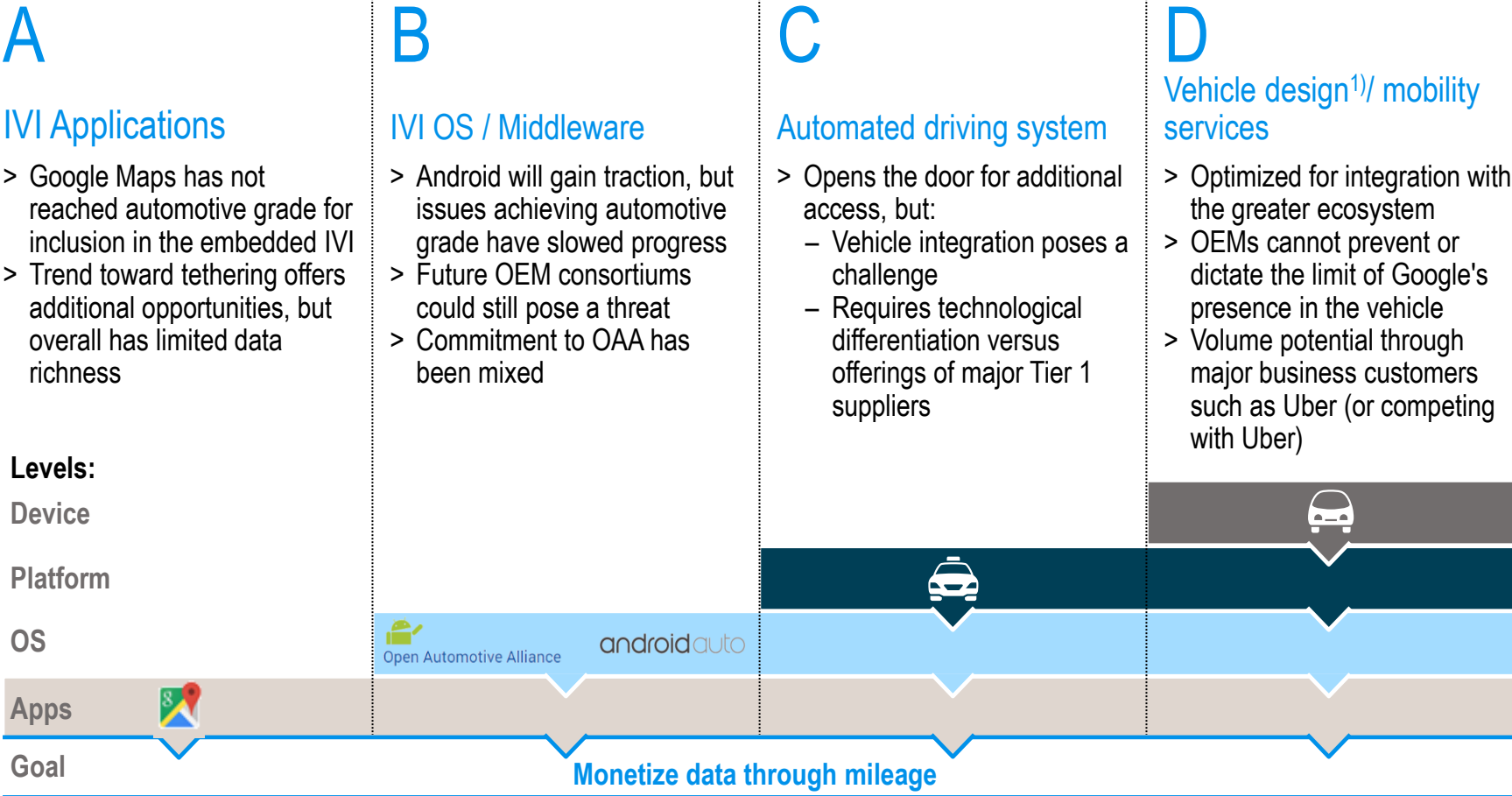
Don't be evil.



- > Google has created an interconnected ecosystem that leverages contextual information from its loosely connected businesses
- > For example, Google Maps is able to "read" an individual's Gmail and know when a user has a flight, restaurant or hotel reservation, and suggest travel plans to that location
- > Increasingly Google will be able to incorporate mobility with other parts of its ecosystem, such as nest knowing to turn on the AC/heat as a consumer comes home

# Google is keeping as many options open as possible as they work to identify their approach to monetization in the auto industry

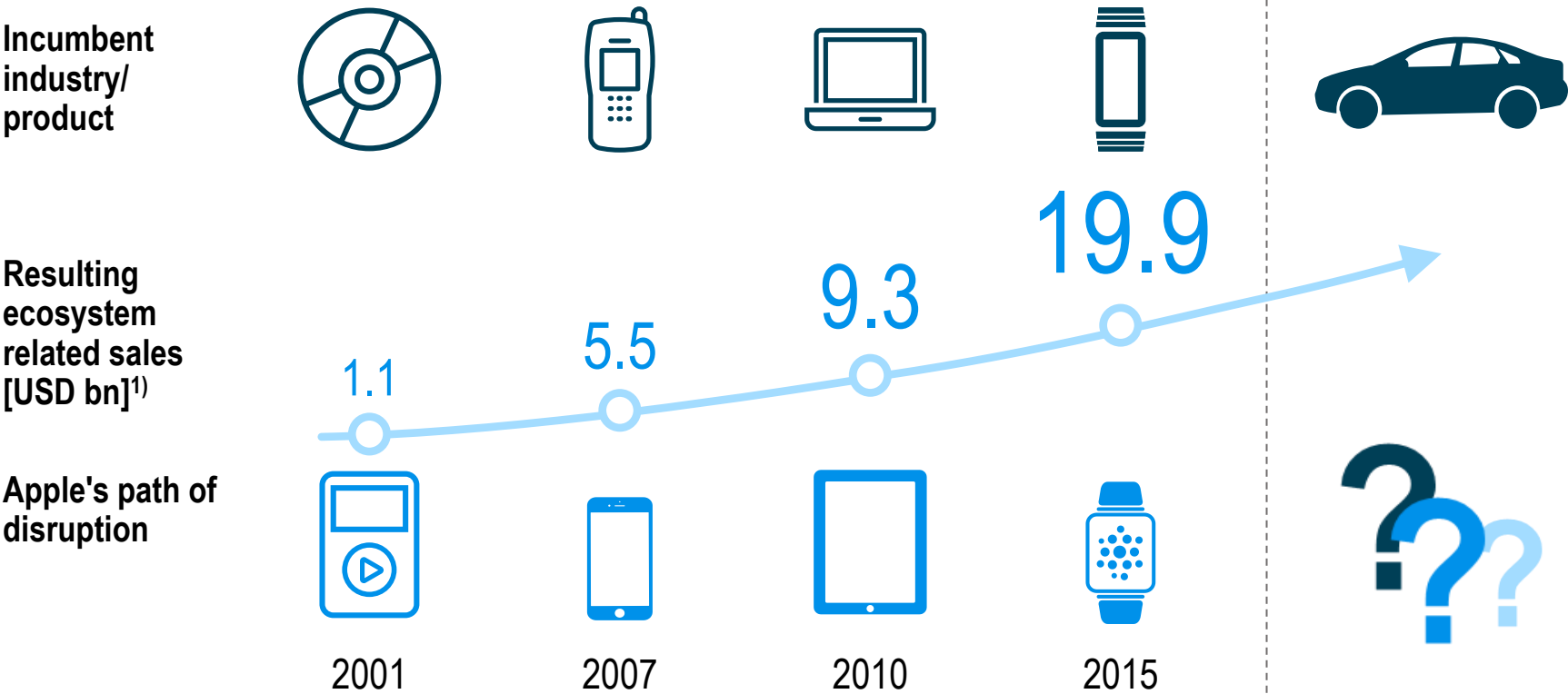
## Google's battlefronts in automotive



1) Includes Google finding partners to produce vehicles

# Apple products disrupt the incumbents and grow the overall ecosystem value – Why would Apple's play in auto be different?

## Apple's ecosystem

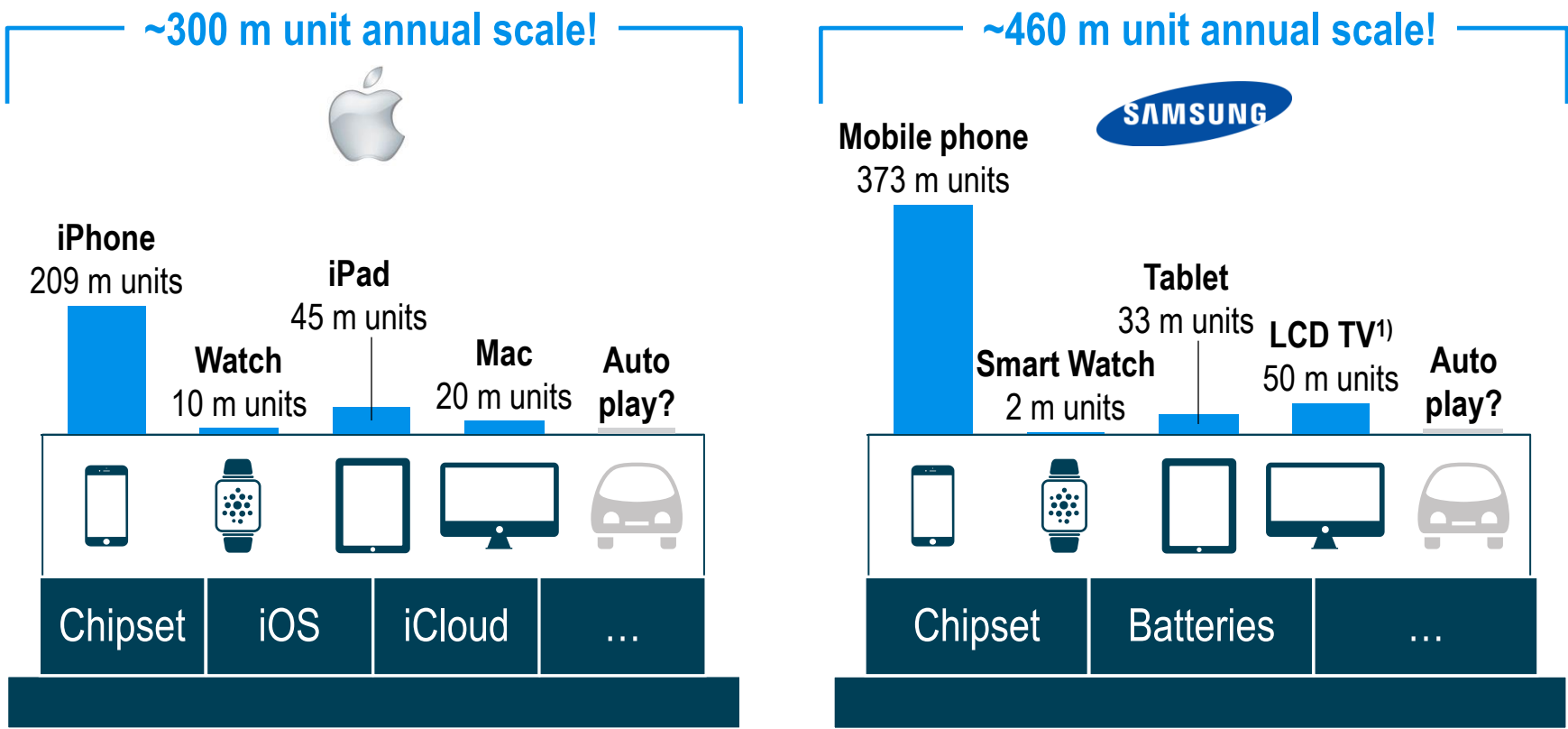


Apple has followed a path of disruption that is based off the objective of building an ecosystem around its previous products, while disrupting incumbent industries – Why would Apple's play in the auto industry be different?

1) Includes revenue from the iTunes Store, App Store, Mac App Store, iBooks Store and Apple Music, AppleCare, Apple Pay, licensing and other services in first full year after product launch

# Tech giants have a cross-industry scale that can not be matched by any single automotive supplier or OEM

Scale – annual product sales, 2015 [units]



Apple and Samsung have the scale necessary to develop their own chipsets allowing them to align the development of their products with their chip technology – An advantage individual OEMs and suppliers will never be able to meet

1) 2014

# Tech giants have changed the definition of services in the auto industry, offering a different perspective and "product"

New definition of services

## What is "services" in the automotive industry?

**OEM view**

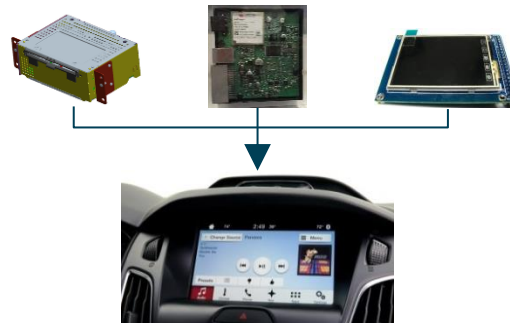
Servicing a vehicle



The original definition of automotive services referred to the literal service that is done to repair a vehicle

**Supplier view**

Integration as a service



As vehicle electronics became more complicated service took on a new definition, as Tier 1s offering a service as an integrator of various components, without directly manufacturing/selling any of the components themselves

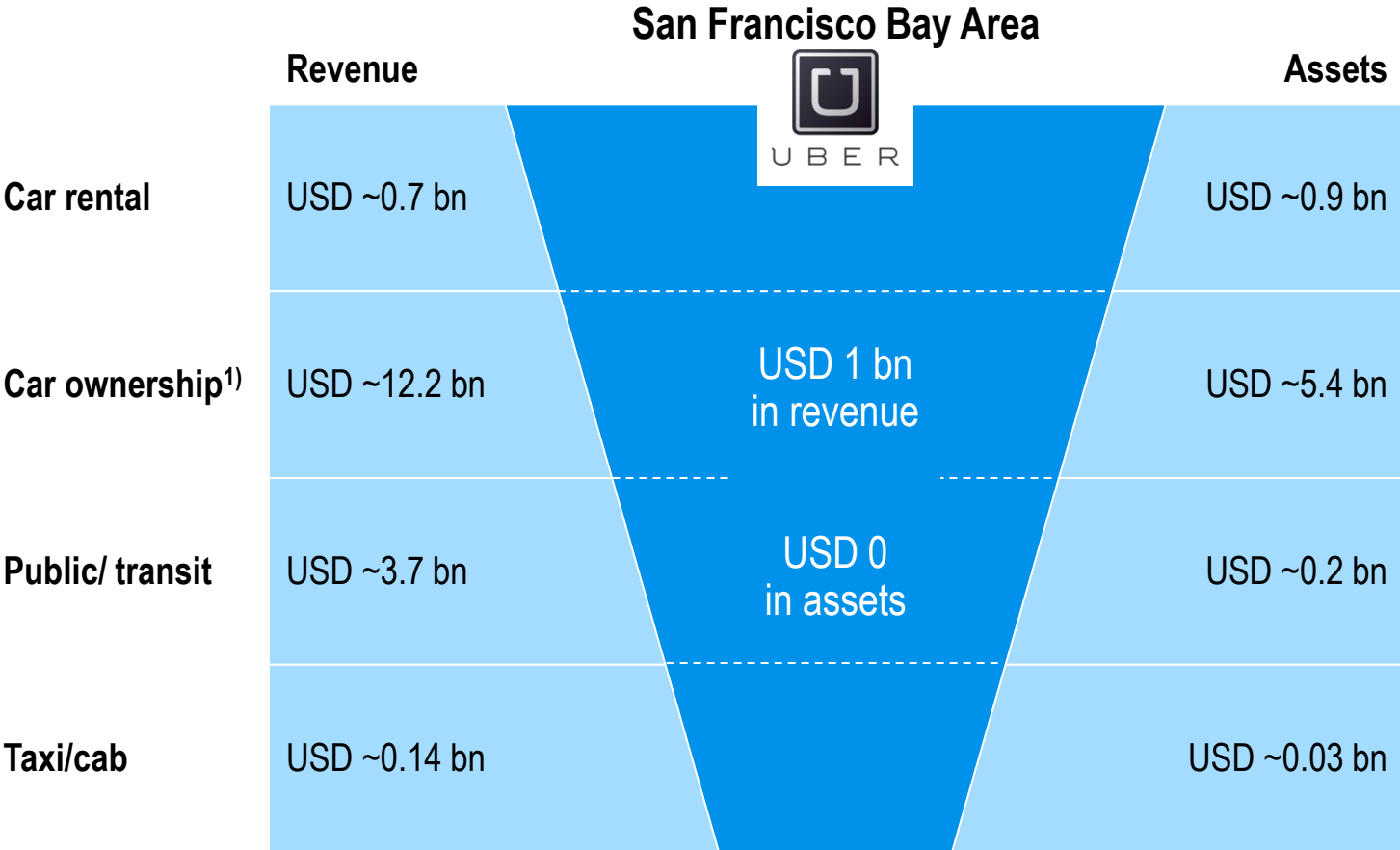
**The New Era**

Service today

Today, the number and type of services offered by the auto industry has diversified even further and includes everything from OTA updates to on demand vehicle ride delivery

# Uber has created a pure service business model, causing a major disruption in an asset intensive industry without owning any assets

Uber's service-based business model vs. incumbents

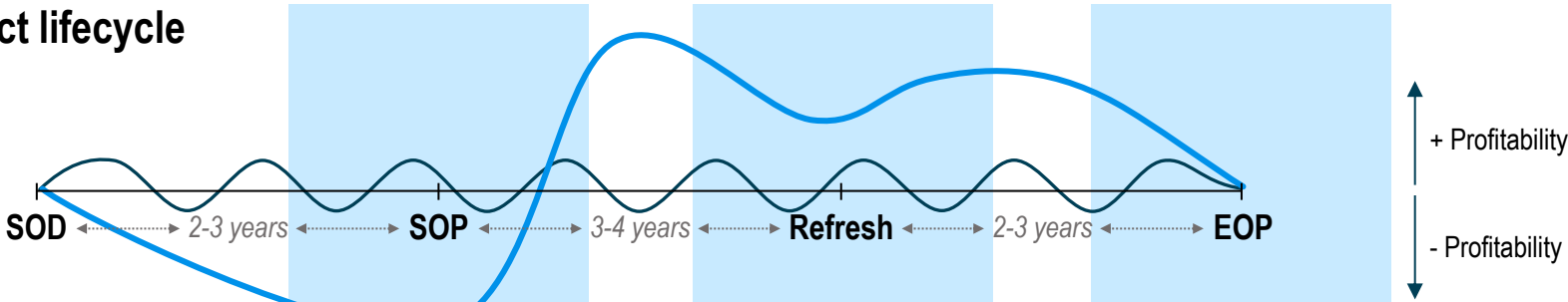


1) Vehicle sales and parc

# Tech giants are innovating at 10 times the speed of the automotive industry, creating new customer expectations

Innovation cycles in consumer electronics and automotive industries

## Product lifecycle



## Age of technology

Your cell phone	0-1 years	0-1 years	0-1 years	<i>So much for being the early adopter...</i>
Your car <sup>1)</sup>	2-3 years	5-7 years	7-10 years	
Car in production	2-3 years	5-7 years <sup>2)</sup>	5-7 years	

*Out of date already at launch?*

*Do you really want to be buying the car before refresh?*

— Vehicle profitability    — Cell phone profitability

1) Bought at SOP; 2) Right before the refresh

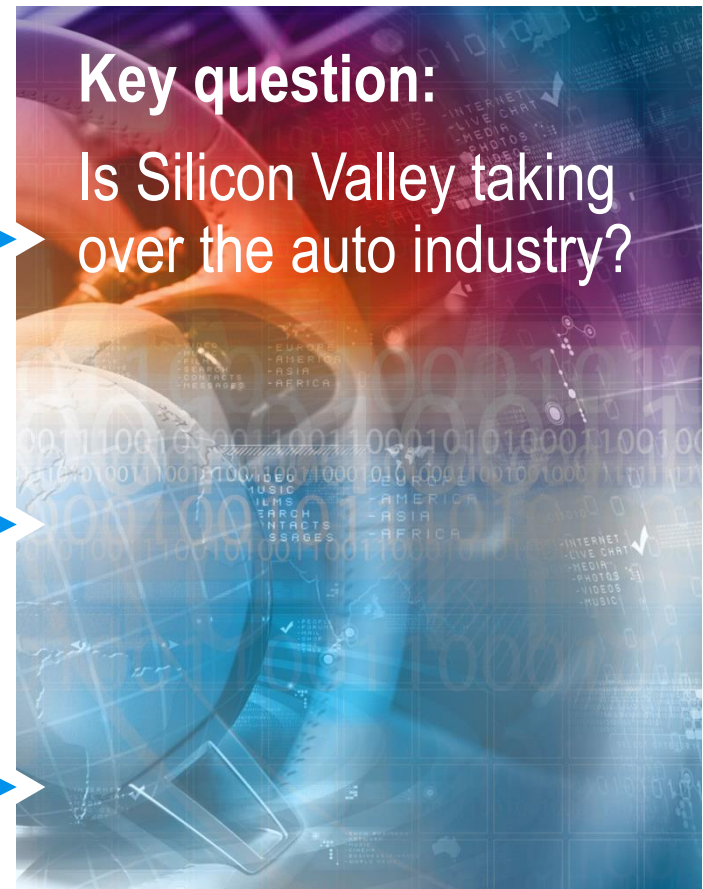
# With players from Silicon Valley knocking at the door its worth asking if there will still be a play for traditional auto suppliers

Considerations for the traditional automotive industry

**1** Will any of today's car makers be among the top 5 car makers 20 years from now?

**2** Will tech giant platforms' and ecosystems' services replace the physical assets as a main source of differentiation?

**3** Will there be a role for traditional suppliers in the new automotive ecosystem?





C. The way forward –  
Embracing the  
disruptive innovation  
potential through  
smart investment  
and eco system  
collaboration



# A lifeline for the supplier industry: adjusting to a radically different environment requires change

Suppliers' adjustment needs



**New way of  
thinking about the  
environment and  
collaboration**



**New strategic  
toolset**



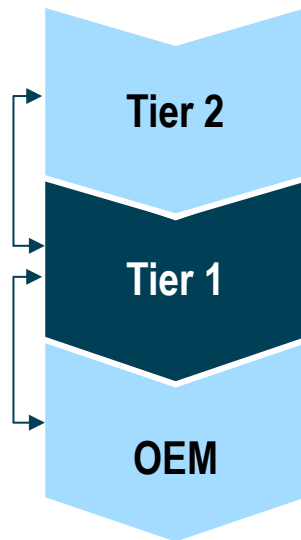
**New approach to  
innovation**

# A new ecosystem approach is replacing traditional value chain dynamics – collaboration is the new normal

## New relationships

### Past

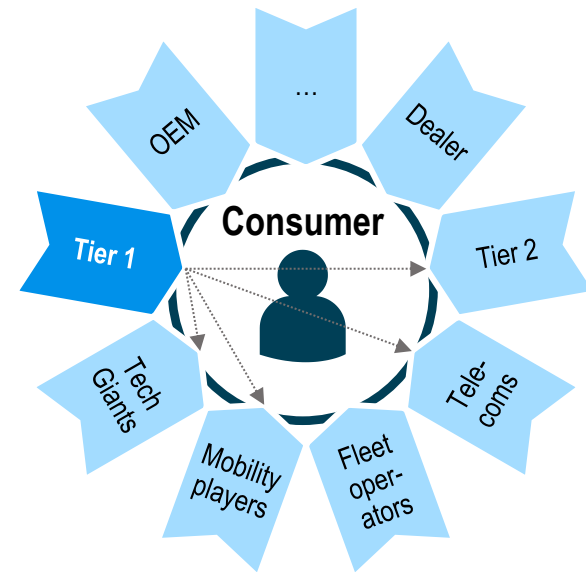
HIERARCHY of the Value Chain



- > In the past Tier 1s only had to interact with their OEM customers and Tier 2 suppliers
- > Loss of the Tier 2 lever traps Tier 1s in an unbalanced relationship with OEMs

### Current

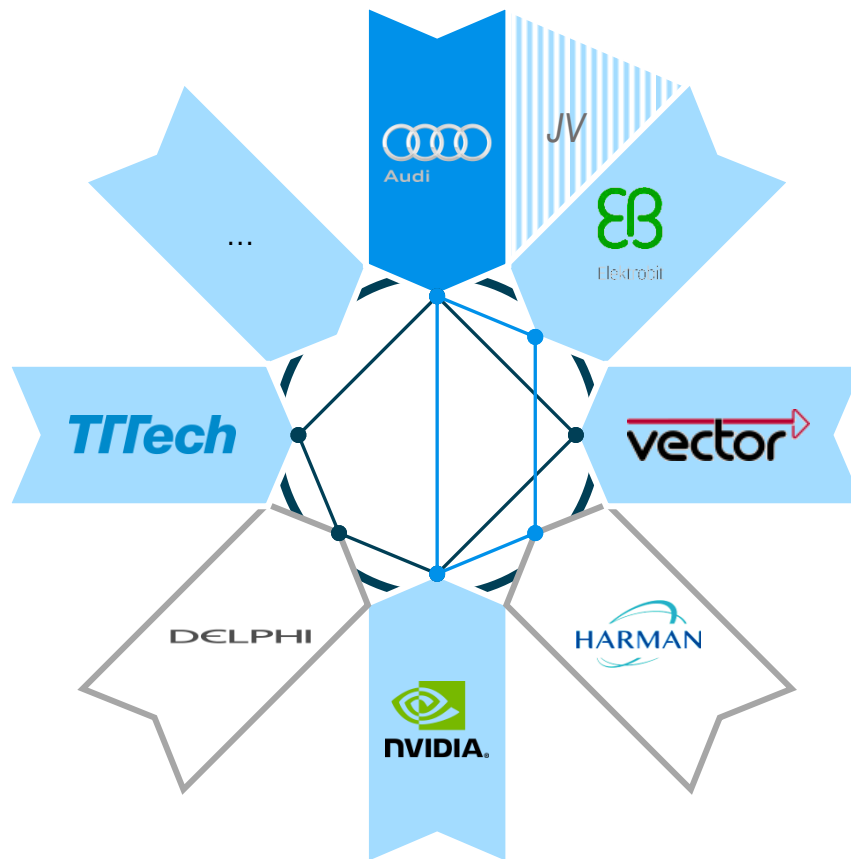
COLLABORATION in the Ecosystem



- > The key in an ecosystem is collaboration:
  - To achieve scale and build automotive and cross-industry platforms
  - To create new value at the intersection of different roles in the eco-system

# Some players are already building collaborative networks, driven by OEMs and at the cost of traditional suppliers

## New relationships – Example Audi



— MIB (modular infotainment) ecosystem — ZFAS (central ADAS) ecosystem

### Audi

- > Has taken the lead in building the ecosystems for its infotainment and ADAS solutions
- > Has developed the fastest time to market for new electronics systems by separating fast and slow innovation pieces
- > Creating elements of a platform by using Nvidia's chips in ADAS, IVI and cluster

### Delphi

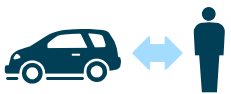



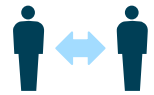

- > Has mostly lost its integrator role to Audi and is primarily responsible for hardware integration

### Harman

- > Has mostly lost its integrator role to e.solutions (JV between Audi and Elektrobit) and is primarily responsible for hardware integration

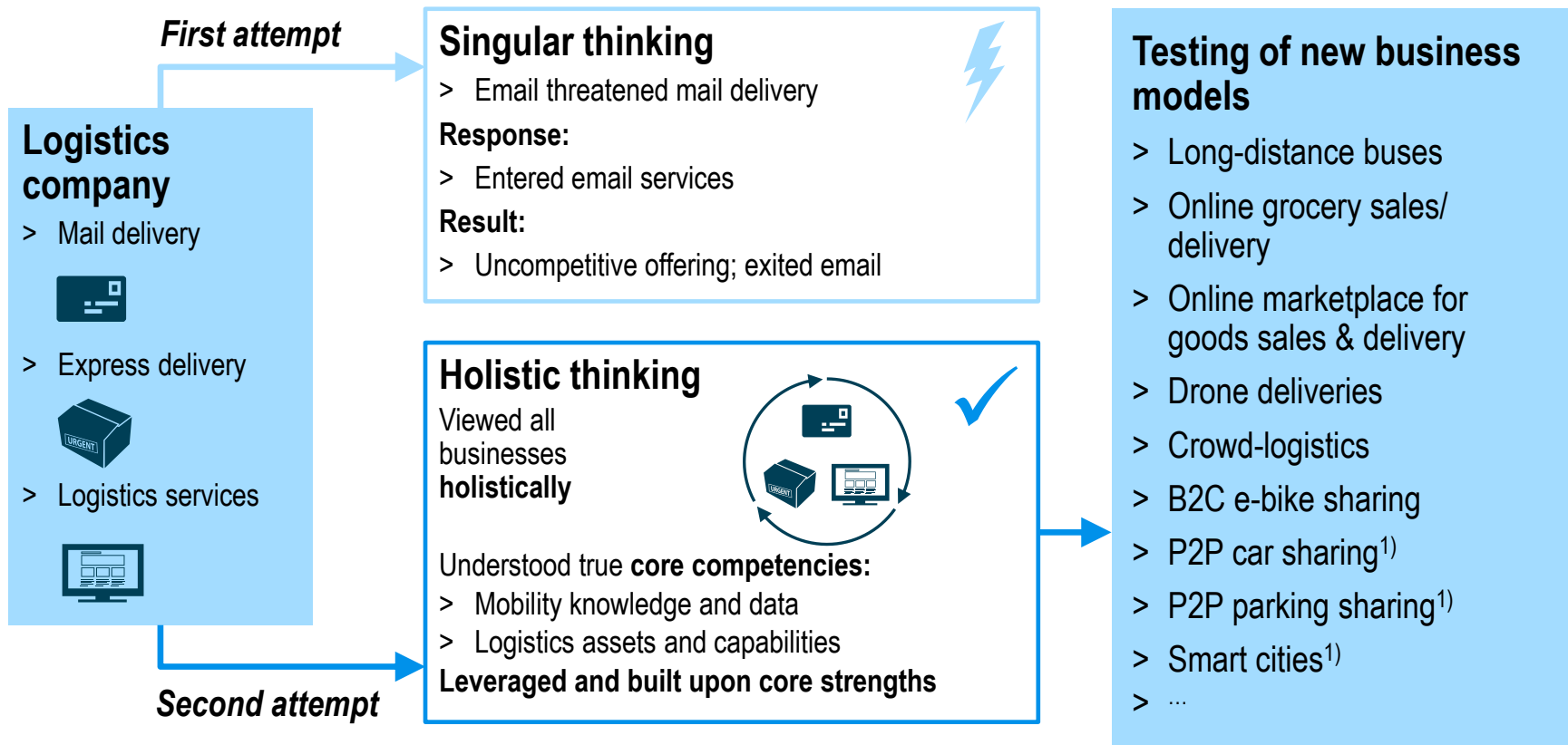
# Different business models have emerged in the mobility and connectivity space – Each with their own efficacy

## New automotive business models

Business models	Description/application	Examples
<b>B2C</b> 	<ul style="list-style-type: none"> <li>&gt; Transaction between the mobility provider and the end-customer</li> <li>– Sample applications: Station-based, free-floating car sharing</li> </ul>	
<b>B2B</b> 	<ul style="list-style-type: none"> <li>&gt; Transaction between the mobility provider and other businesses</li> <li>– Sample applications: Messenger/delivery service</li> </ul>	
<b>P2P</b> 	<ul style="list-style-type: none"> <li>&gt; Transaction between two private users with the mobility service provider capturing a commission</li> <li>– Sample applications: Car sharing, ride sharing, parking sharing</li> </ul>	

Companies are experimenting with hybrid business models – Combinations of B2B and B2C to further improve asset utilization, meet demand and maximize profitability

# DHL responded to threats by developing and acquiring innovative new business models, competing in many new areas

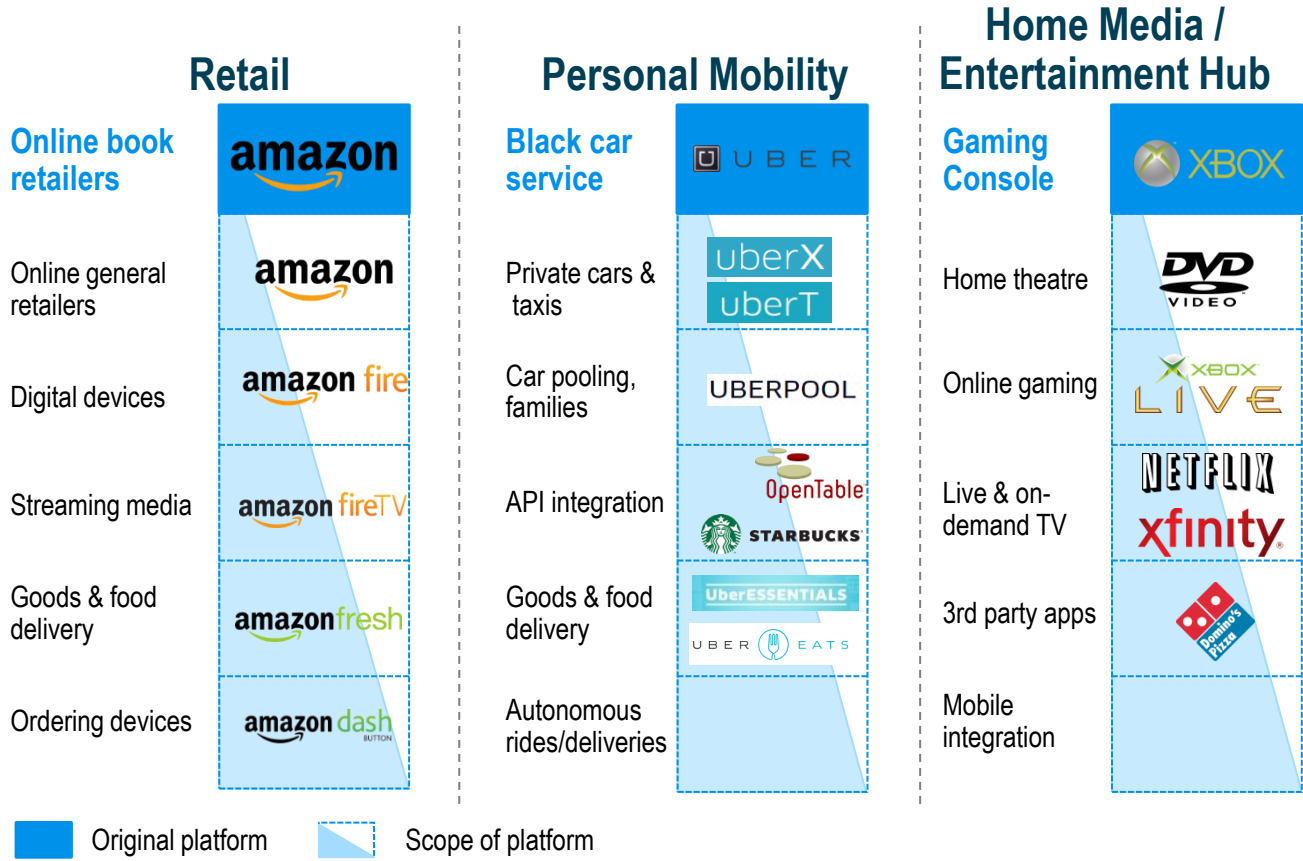


1) Services in pre-launch or pilot phase

# Major value creators have leveraged platforms to expand technologies into holistic consumer solutions

## Example of technology platforms

Platforms integrate **products and services**, creating a **network effect** as more users and more products and services are added



- > Broadened scope allows for diverse revenue streams, increased stickiness, and increased control of the customer
- > New offerings further build the network effect and add ease of use through a common portal/system

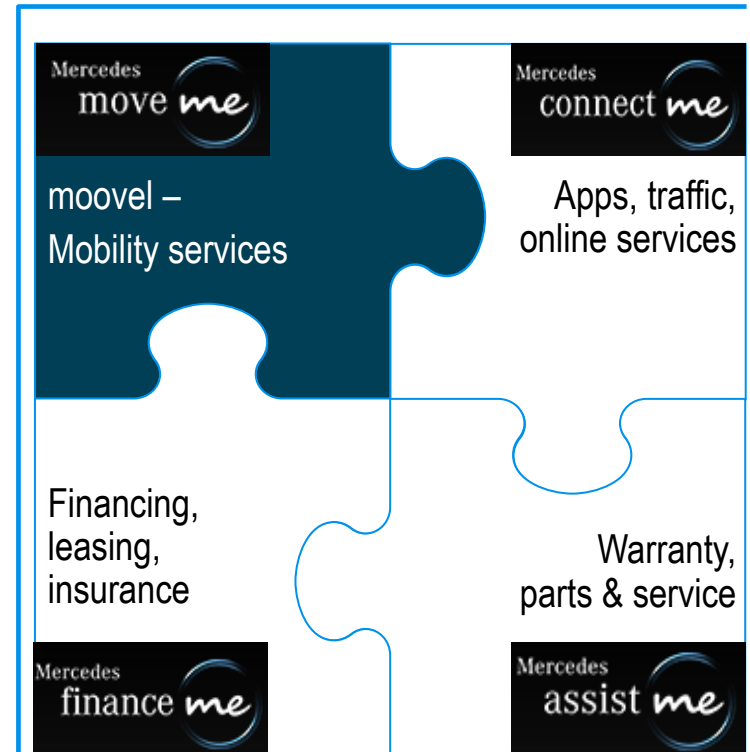
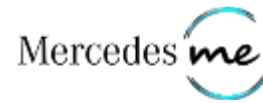
**Can traditional suppliers have a platform niche that they can dominate and defend?**

# The auto industry is following slowly: Daimler is integrating mobility services and 3rd party offerings on its "me" platform

Mobility platform example – Daimler



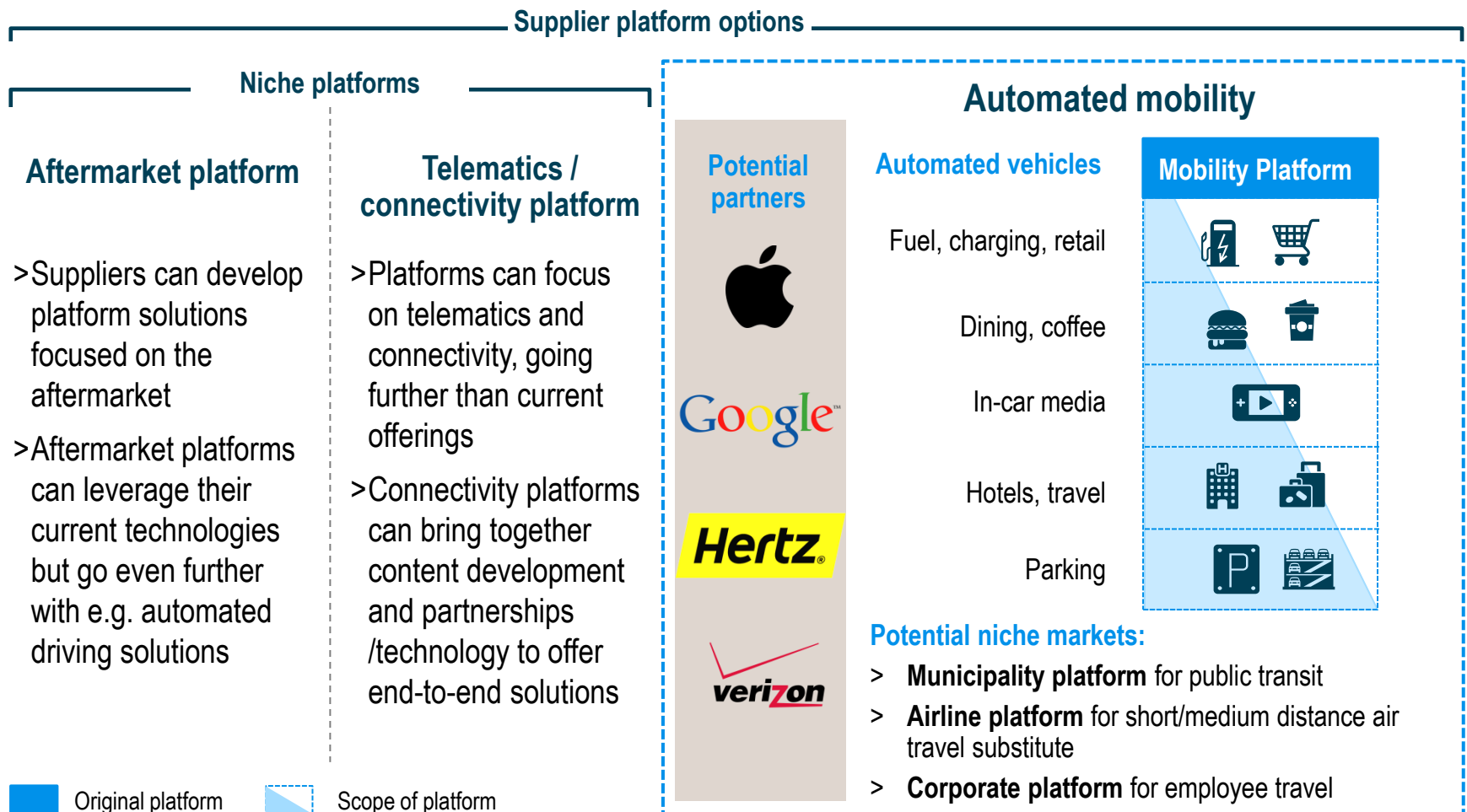
*Aim: To become the "Amazon of mobility"*





# Looking beyond traditional business: Automated vehicles have the potential to function as the foundation of future mobility platforms

## Potential platform options and niches – example



# Without a mindset change, incumbent suppliers will have a hard time embracing the new industry environment

Why do traditional players have a hard time adopting new approach to innovation?



## Wrong mission

Considering startup investment as business development instead of 'venture'



## Wrong organizational set-up

New initiatives woven into the traditional R&D organization



## Wrong staff

Internal veterans instead of 'disruptors'



## Wrong speed and approach

Trying to apply old-fashioned ROI principles and need of internal sponsors instead of freedom to invest and explore



## Wrong spirit

Failure is not an option and leads to internally questioning of innovation activities



## Wrong time horizon and stability

New leadership might change appetite and support for new innovation activities



## Wrong incentive

Overemphasizing financial return and quick wins over 'intangible' benefits (learning, speed, cross-discipline)



## Wrong value proposition

Egoistic behavior instead of being a collaborative partner

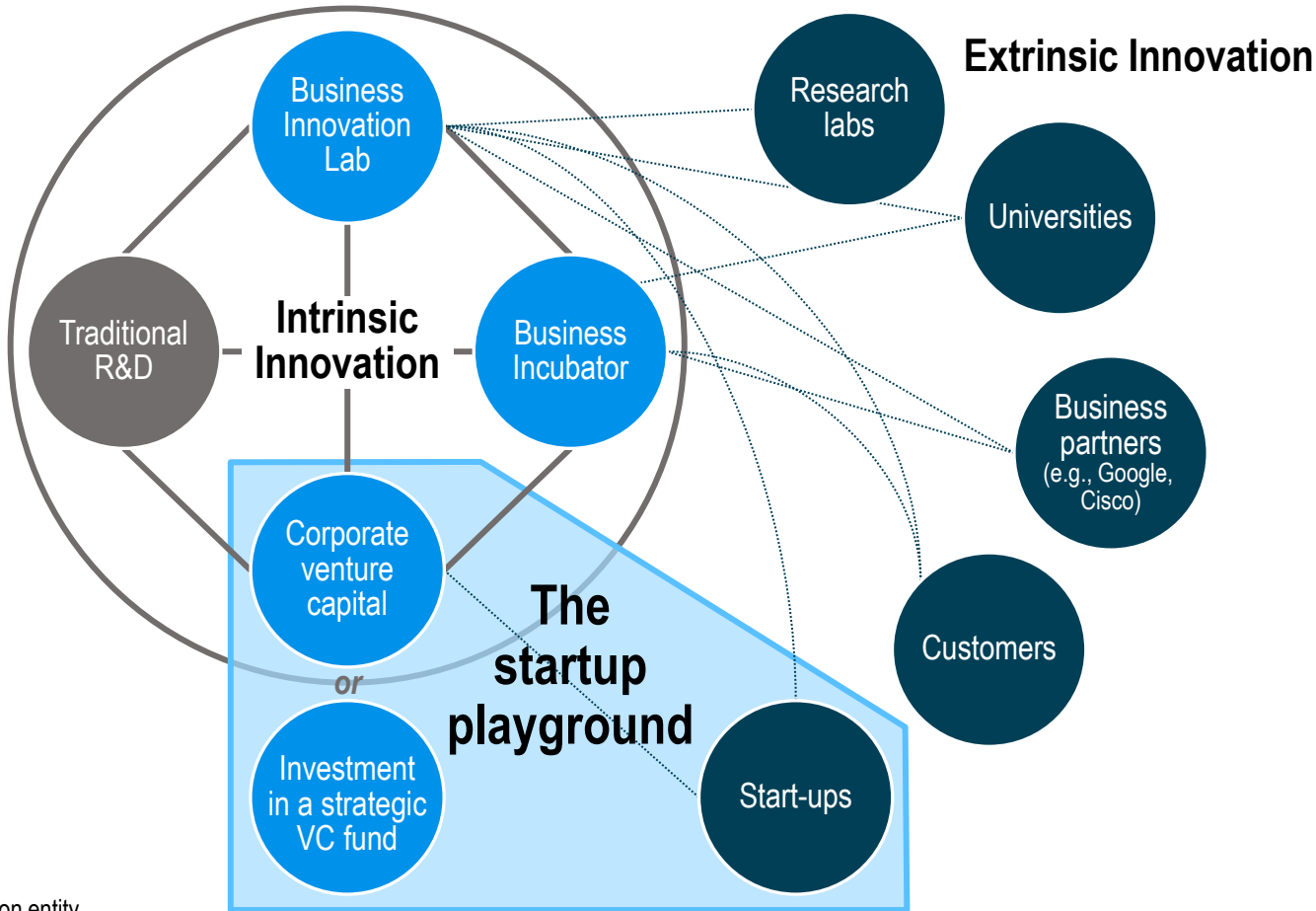


## Wrong deal flow

Lemons instead of hot deals within the VC activities

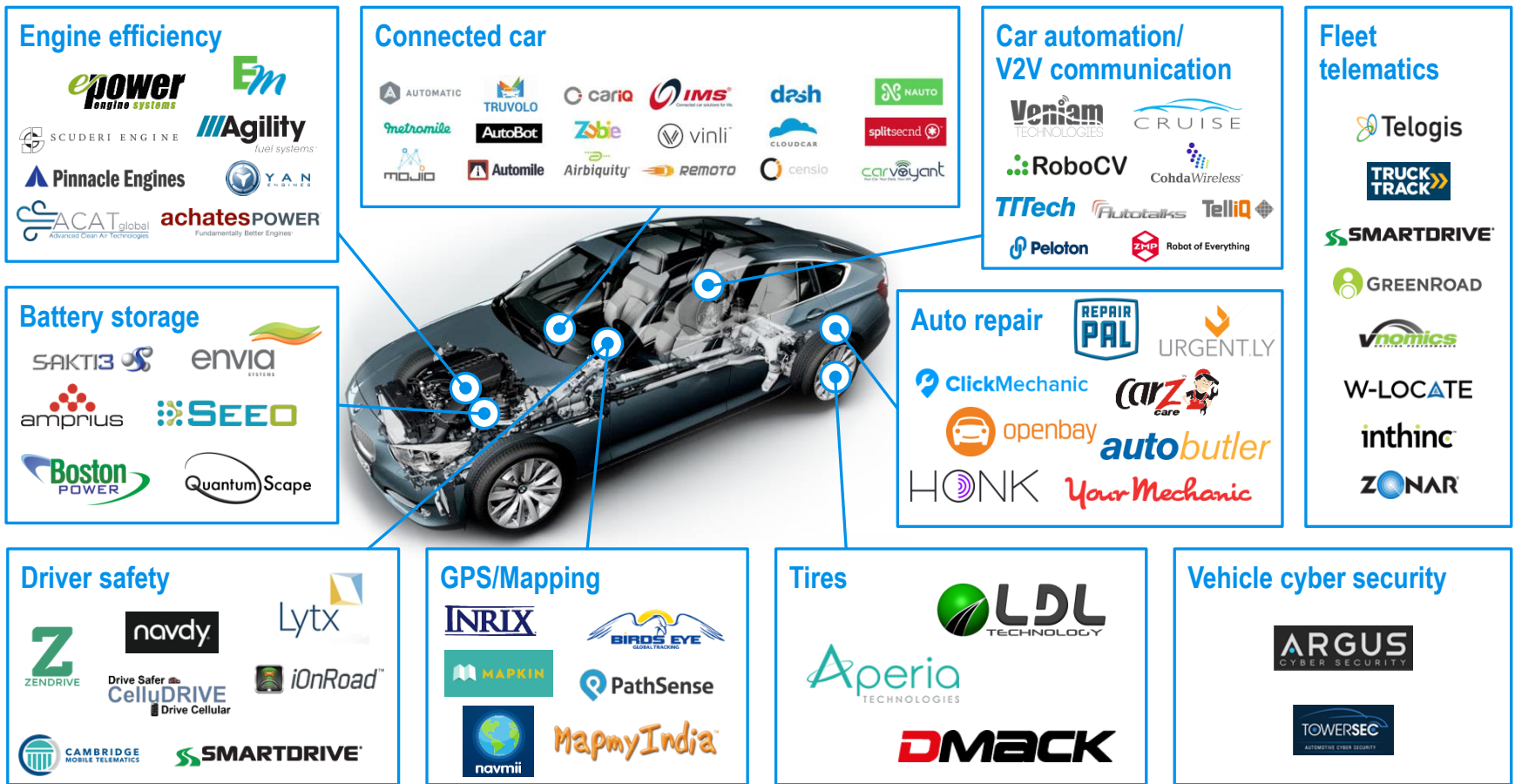
# Collaborative approach to innovation requires expansion beyond traditional R&D – startup field will be the hardest game to master

## New approach to innovation

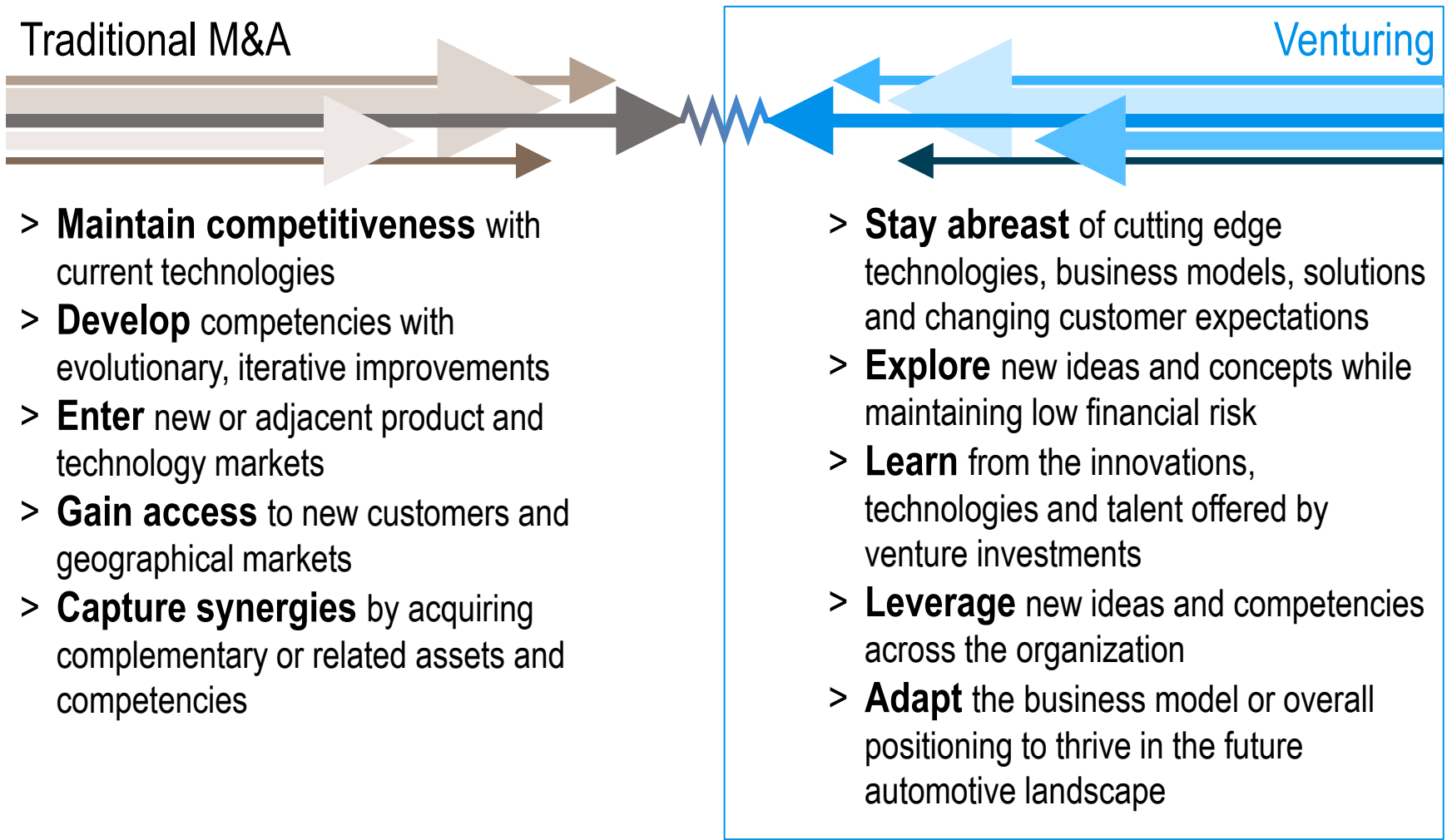


# Today's automotive innovation is pioneered by startups – ignoring them is to ignore the richest pool of creative thought

Examples: VC-backed mobility innovations



# Venturing is a critical lever in the "survival-kit" for incumbents – different from traditional M&A and requiring a new mindset



# The CEO agenda for suppliers represents a seismic change to a traditional way of doing things...

## Suppliers' CEO agenda



**New way of thinking:**  
Ecosystem vs. value chain



**New strategic toolset –**  
Platforms, services and software beyond traditional "products"



**New approach to innovation –**  
Embracing Silicon Valley speed, culture and mindset

... and requires the ambition to go beyond traditional dynamics and behavior

*"We are continually  
faced by great  
opportunities brilliantly  
disguised as insoluble  
problems."*

**Lee Iacocca**



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