

2015 Automotive Industry Outlook and Strategic Insight

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A Joint Presentation with

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F R O S T  S U L L I V A N

Today's Presenters



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Focus Points of Our Presentation Today

1. Highlights of 2014
2. Key Predictions and Top Trends for 2015
3. Disruptive Trends Influencing the Market
4. US Market 2014 Performance and Outlook – Aziz Ucmakli
5. Discussion

POLL QUESTION 1

In 2014, the market grew to 87 million. Where do you think the market will finish at the end of 2015?

- A. 85 million
- B. 87 million
- C. 90 million
- D. 93 million
- E. 95 million

What Do You Think



Key Highlights of 2014

1

Global Automotive Market hit **87 million** units sales.

2

2 Major OEMs (Toyota and Volkswagen) crossed the **10 million mark** in 2014.

3

2014 set a new **record** for **recalls**. Over **600 million** vehicles were recalled **in the US**.

4

Clear strategy from **non automotive players** like **Google, Apple** and **Alibaba** in the **connectivity, retailing** and **autonomous driving** space.

5

2014 witnessed the entry of **volume OEMs** into the **mobility space** with comprehensive mobility offerings (eg.Ford), while existing **premium OEMs** **expanded** their **footprint**.

6

2014 saw appointment of **women leaders** (CXOs) **within the automotive industry** for instance, GM, Citroen etc. **Women** are also heavily **influencing automotive purchases**, over 50% of license holders in North America are women.

Top Predictions for 2015



Global automotive sales to hit 91.5 million. Sales to peak in 2015 as the average age of the car rises in US and Europe.



Mercedes Benz could overtake Audi and achieve the No.2 position in the premium vehicle market.



2015 will see the expansion in capacity in North America and the advent of “brand less” factories.



Digital retailing of parts, service and sales of cars to accelerate. Online sales launched by OEMs including BMW, Renault and Volvo to compete with Daimler and Dacia.



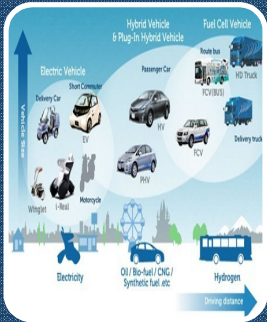
Global policy makers to support legislation change and testing for putting autonomous cars on roads.



New frontier for automotive growth to emerge – Stan and Jan and Africa.

Source: Frost & Sullivan; Images and logos are only for illustration

Top Trends for 2015



2015 will see the evolution of new vehicle segments

Multi material light weighting will be a game changer

Rise of alternative fuel vehicles (Hybrid, EV and Fuel Cell)

Connected car to evolve as a part of connected living

Health and wellness to be key in 2015

New industry business models of collaboration across the ecosystem

Source: Frost & Sullivan; Images and logos are only for illustration

POLL QUESTION 2

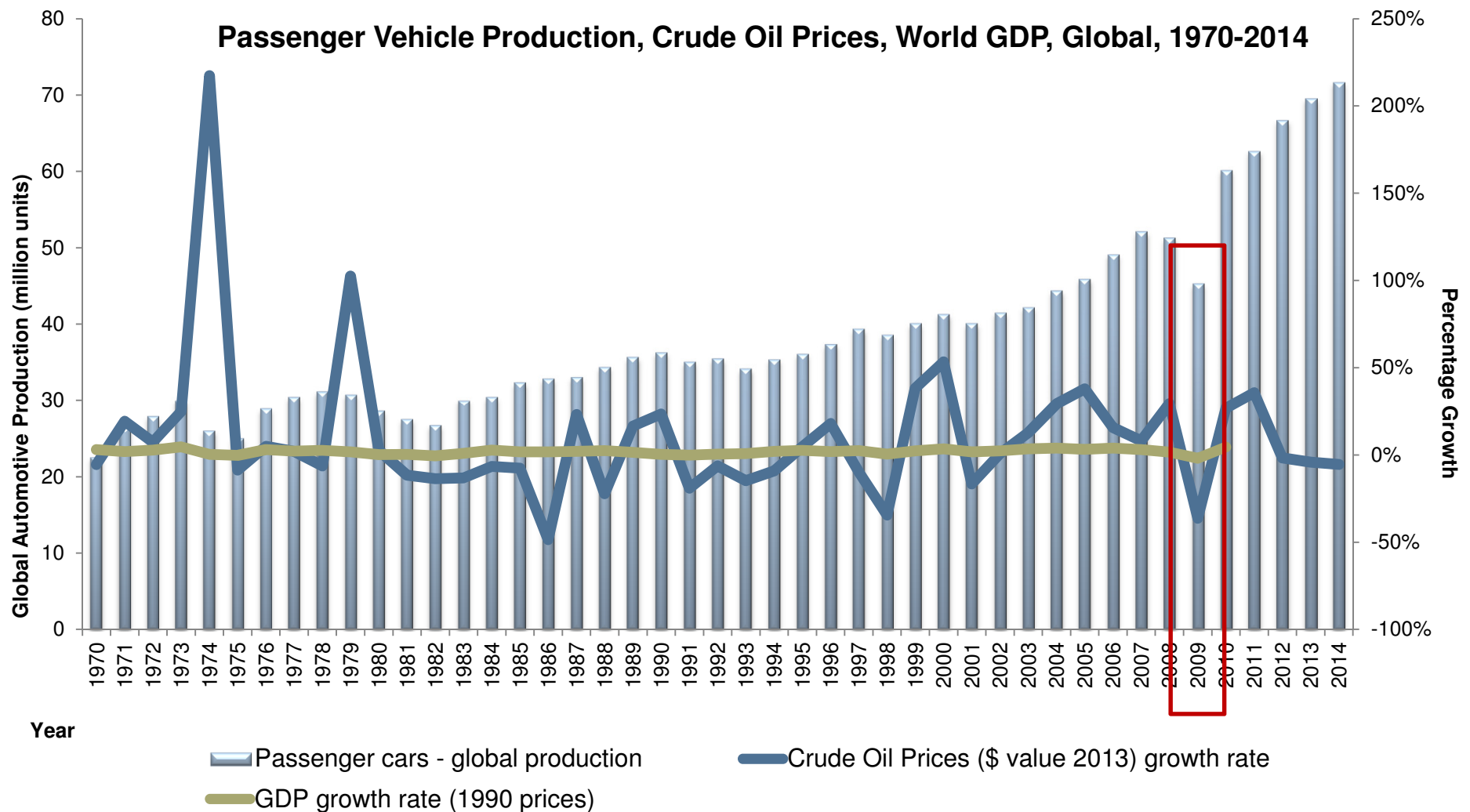
Which three trends in your opinion would have the greatest impact on the market in 2015?

- A. **Reshuffling in the luxury market - Daimler could become No. 2 overtaking Audi**
- B. **The Plug-in Hybrid Electric Vehicle (PHEV) market to accelerate**
- C. **The new Toyota Mirai fuel cell to be a path breaker like the Toyota Prius and rejuvenate Toyota brand**
- D. **Health and wellness to be a key focus area for OEMs**
- E. **Advanced semi-autonomous car features (Traffic jam assist) to hit the roads**

What Do You Think



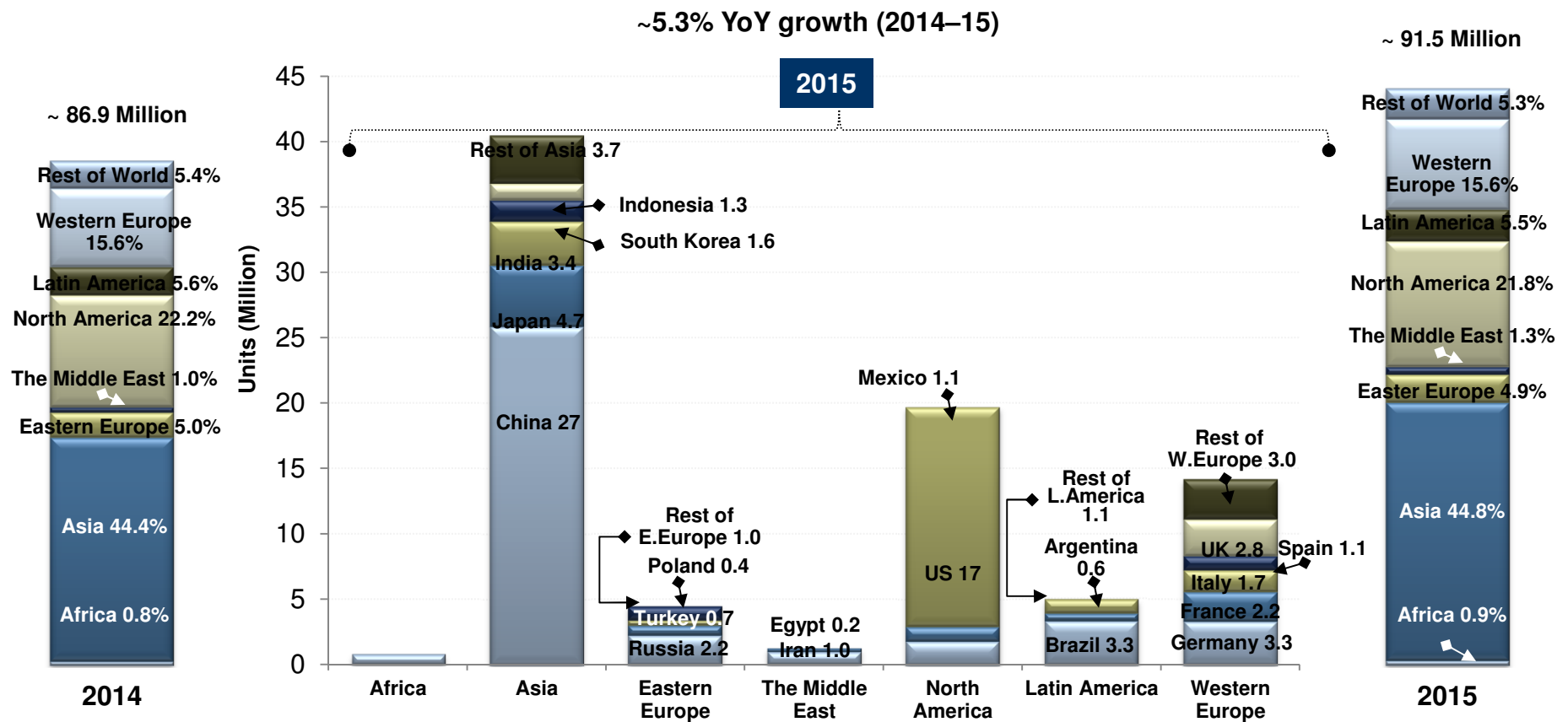
Global Automotive Production vs. Global GDP vs. Fuel Trends



Source: Frost & Sullivan, IMF, World Bank

Global Light Vehicle Sales by Region in 2015—A Snapshot

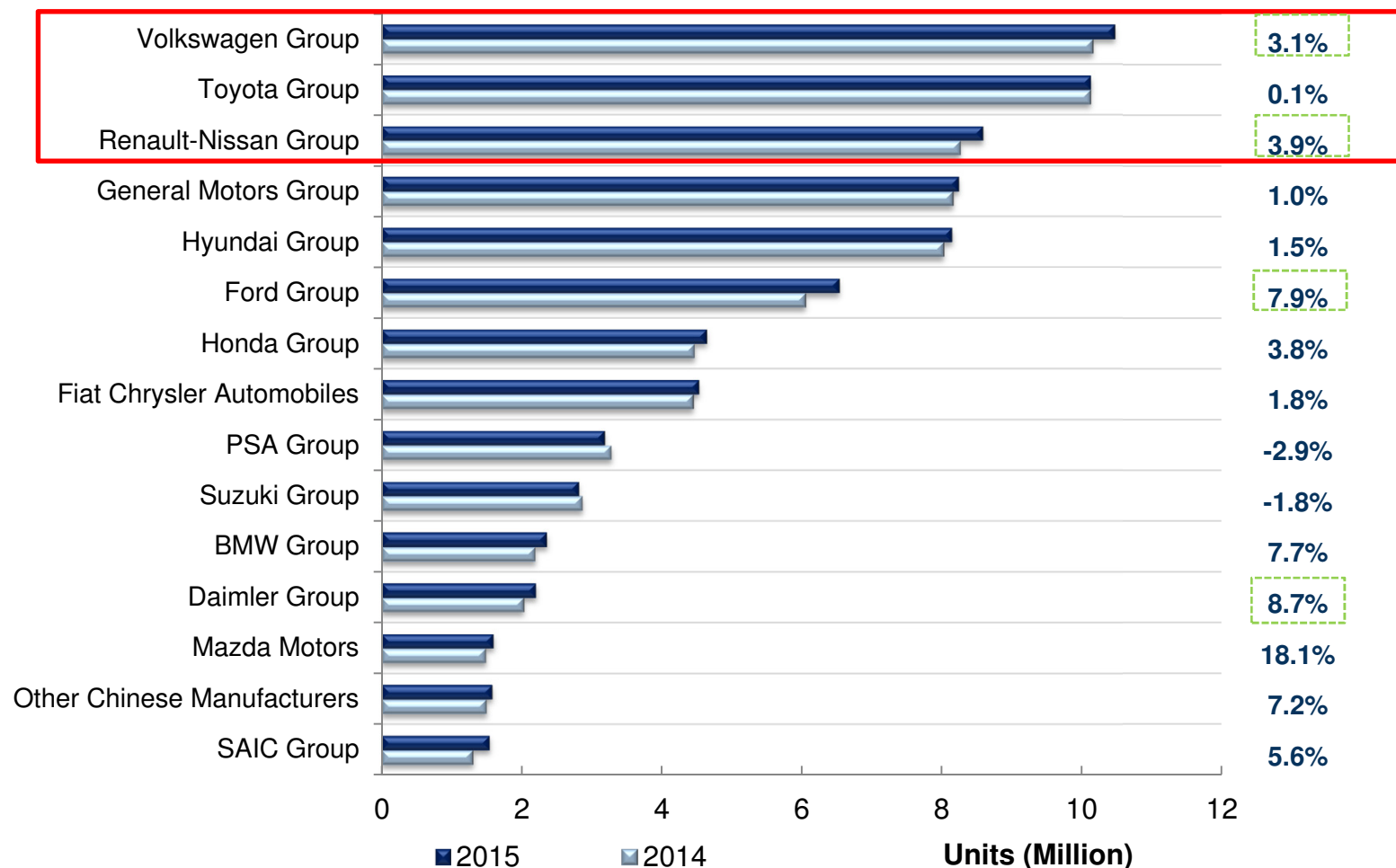
Light Vehicle Sales, Global, 2014 and 2015



Source: Frost & Sullivan, LMC Automotive

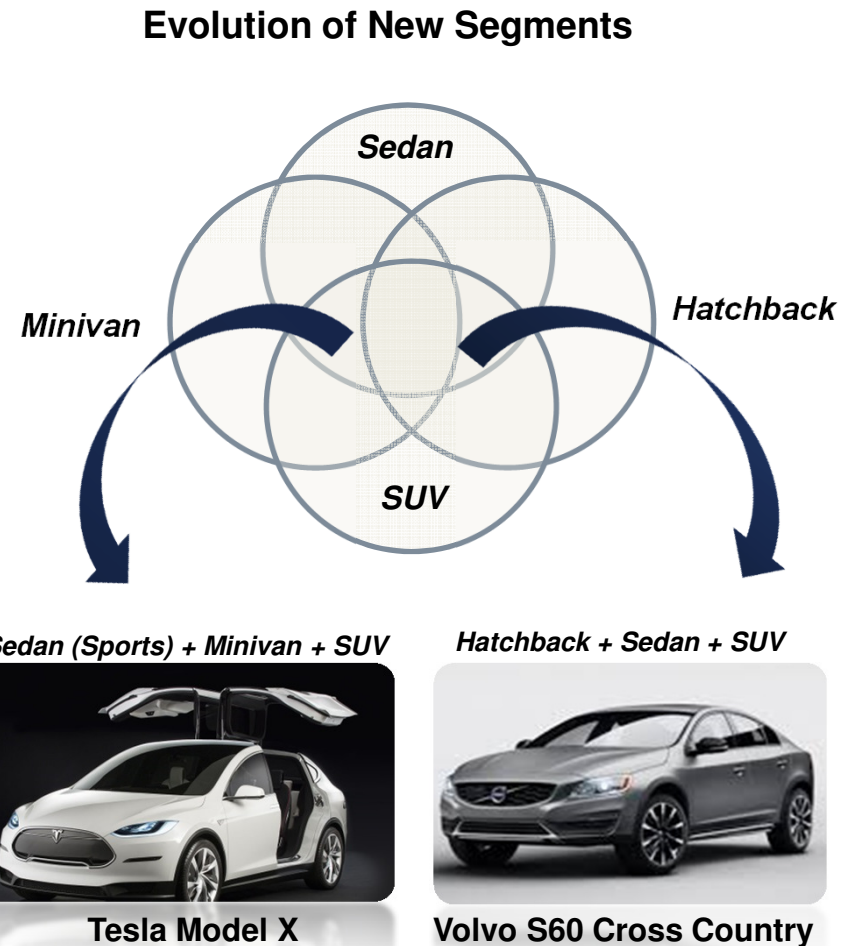
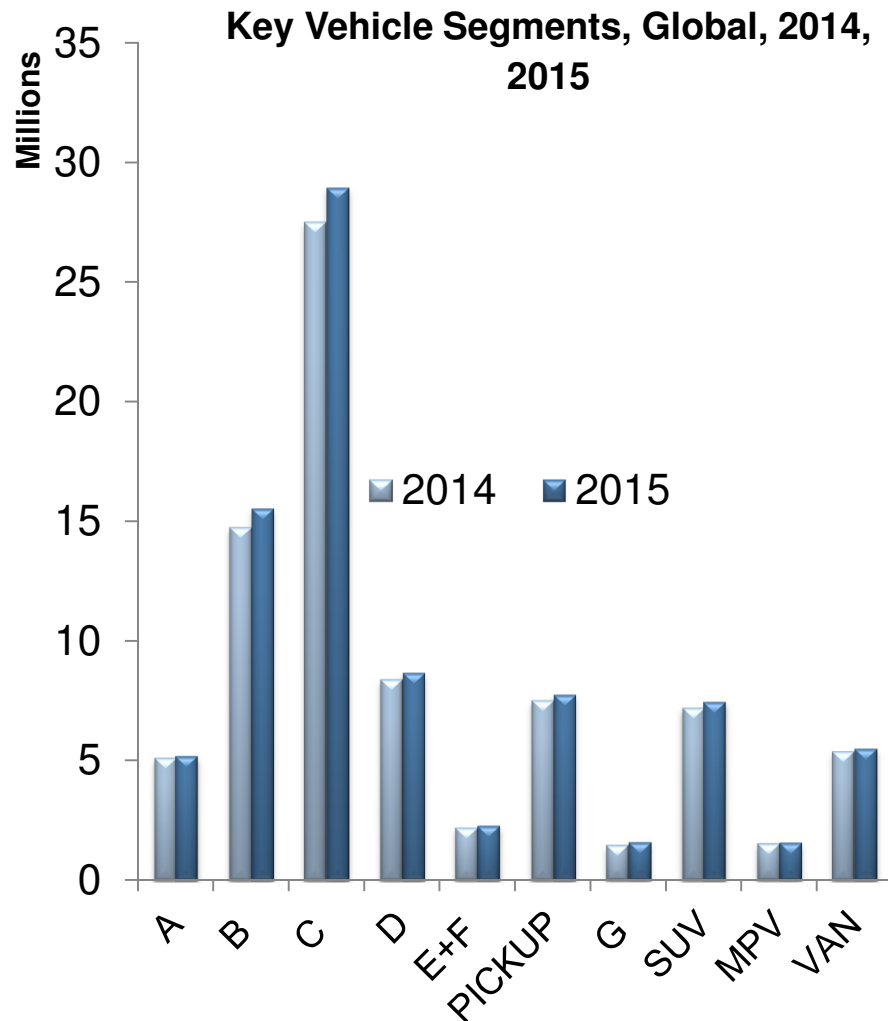
Global Light Vehicle Production by OEM in 2015—A Snapshot (Excludes MCV and HCV)

Light Vehicle Production by OEM, Global, 2014 and 2015



Note: All figures are rounded; the base year is 2013. Sources: LMC Automotive, Frost & Sullivan.

2015 will be the litmus test that determines the success of the new Trifecta proposition that merges three distinct segments



Source: Frost & Sullivan, LMC Automotive; Images and logos are only for illustration

Ultra Premium Brands Coming into the SUV segment - launching in new segments to expand their customer base.



Maserati Levante



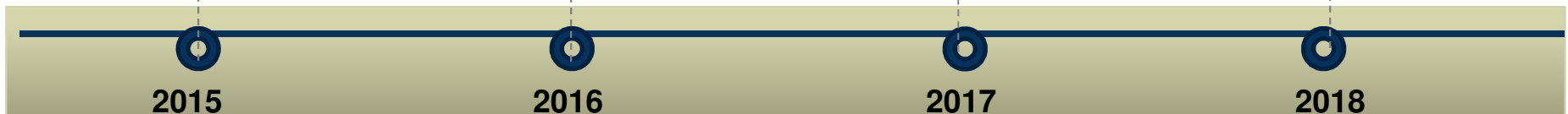
Bentley Bentayga



Lamborghini Urus



Rolls Royce SUV



Increased synergies from platforms sharing between premium SUVs with their high end luxury segment counterparts



Audi Q8



Bentley Falcon



Lamborghini Urus



Porsche Cayenne III



VW Touareg.

Audi Q8 Case Study

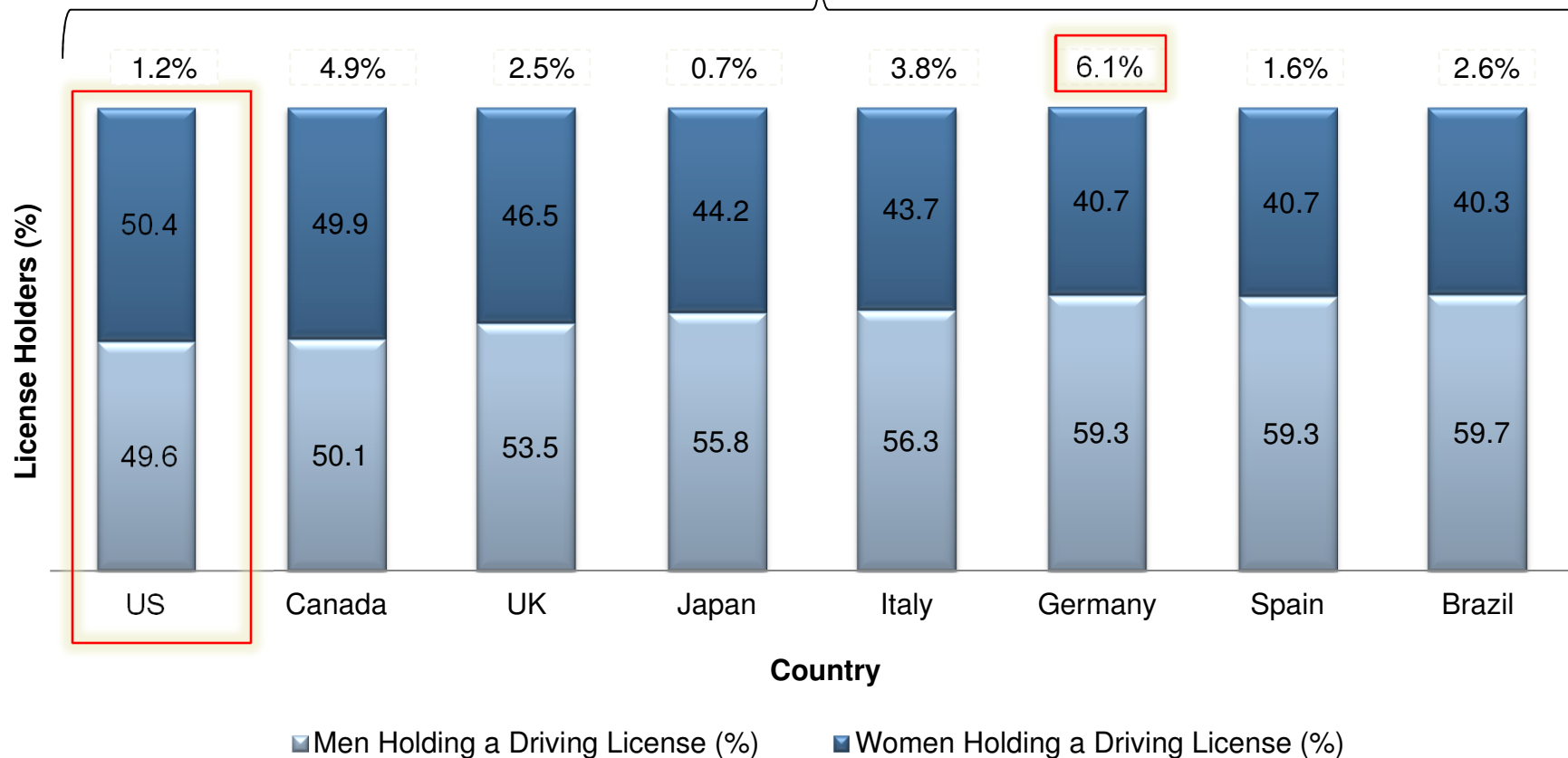
- Paves way for Bentley Falcon.
- Shares platform with Lamborghini Urus, Porsche Cayenne III and VW Touareg.

Source: Frost & Sullivan; Images and logos are only for illustration

Women will become a larger and more valuable consumer segment than men and 2015 will lead this shift

Women as Customers in the Car Industry - Driving License Holders by Gender, Global 2012

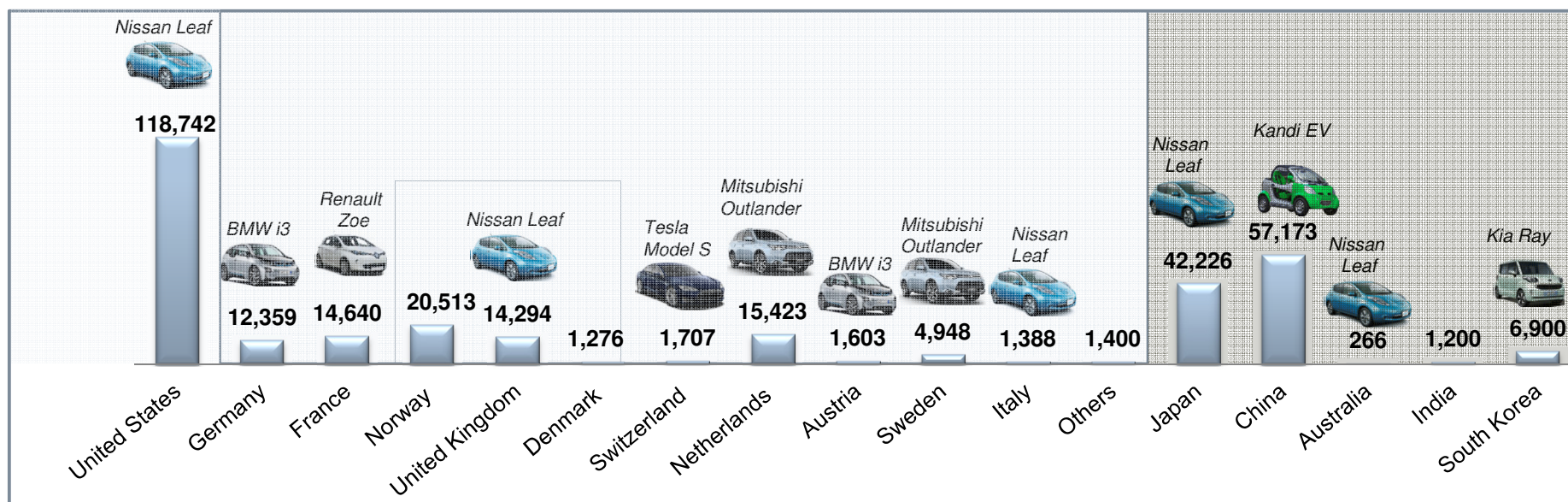
Growth Rate of Female License Holders (2012)



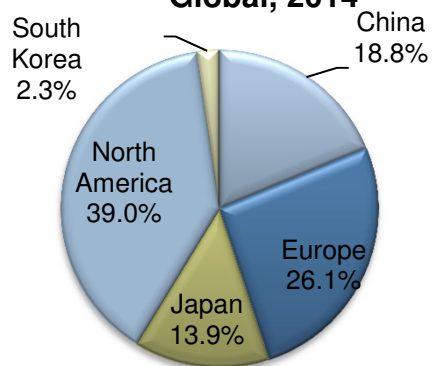
Source: Frost & Sullivan

Over 480,000 electric vehicles to be sold globally in 2015 with North America accounting for 36% of the market

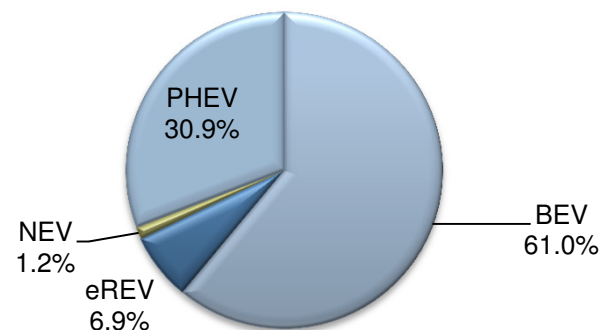
Total EV Market - Sales by Country, Global, 2014



Total EV Market: Percent Sales Breakdown by Region, Global, 2014



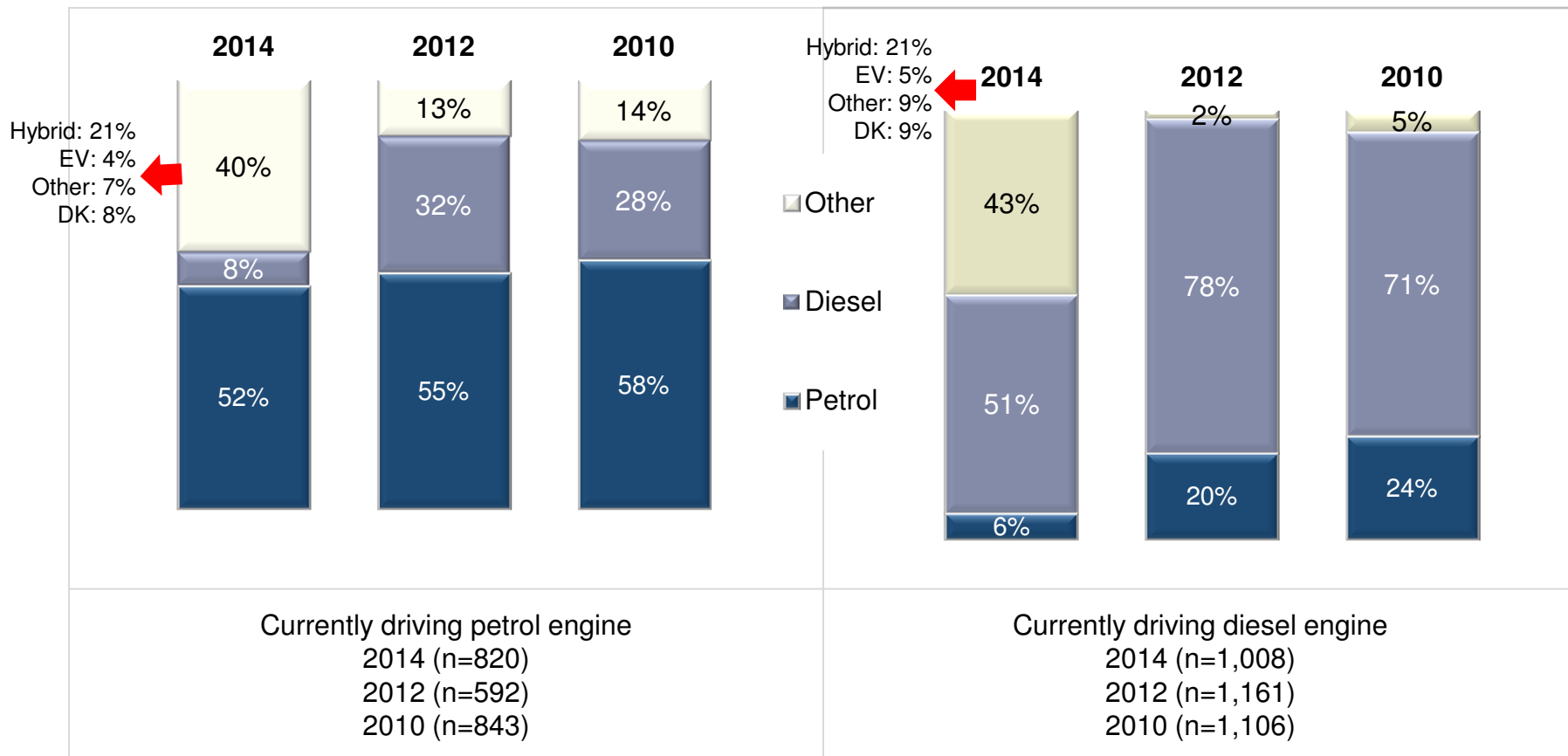
Total EV Market: Percent Sales Breakdown by EV Type, Global, 2014



Note : Numbers have been extrapolated for November and December; Source: Frost & Sullivan

High proportion of diesel drivers in Europe are likely to switch to other fuel types: Findings from F&S Customer Survey

Preferred Type of Powertrain for Next Vehicle— Trend 2010-2014



Source: Frost & Sullivan

Retail to move from a transactional to an experience based approach

① **Growth of Multi-channel retail**



② **Stiff competition in online retail**



③ **Global dealership identity**



④ **Increased investment in digitization**



⑤ **New digital compact store concepts**



Impact to OEMs Retail Strategy

Maximizes customer reach; complemented by digital showrooms, pop-up stores, and lifestyle stores.

Unified brand **experience and positioning**

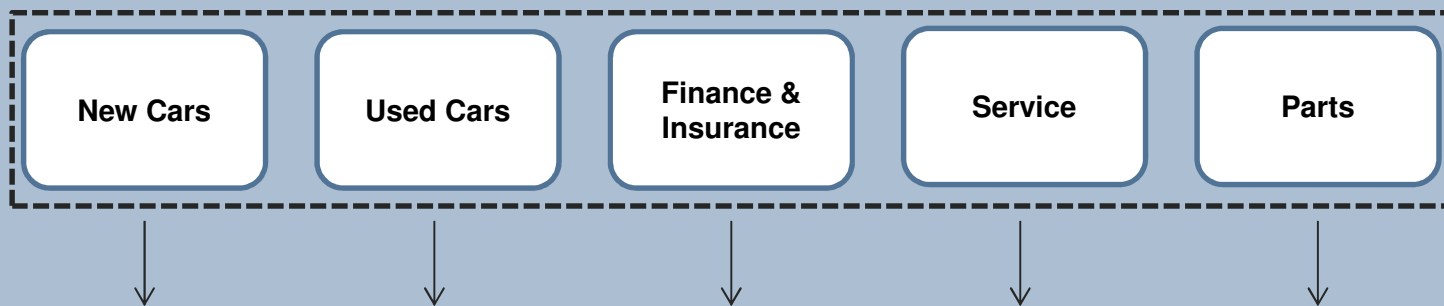
Informative and experiential customer **retail experience in a small space**

Source: Frost & Sullivan, k3retail; Images and logos are only for illustration

Unbundling of the Automotive Business Starts in 2014 – The Multi-Channel Strategy for the Future

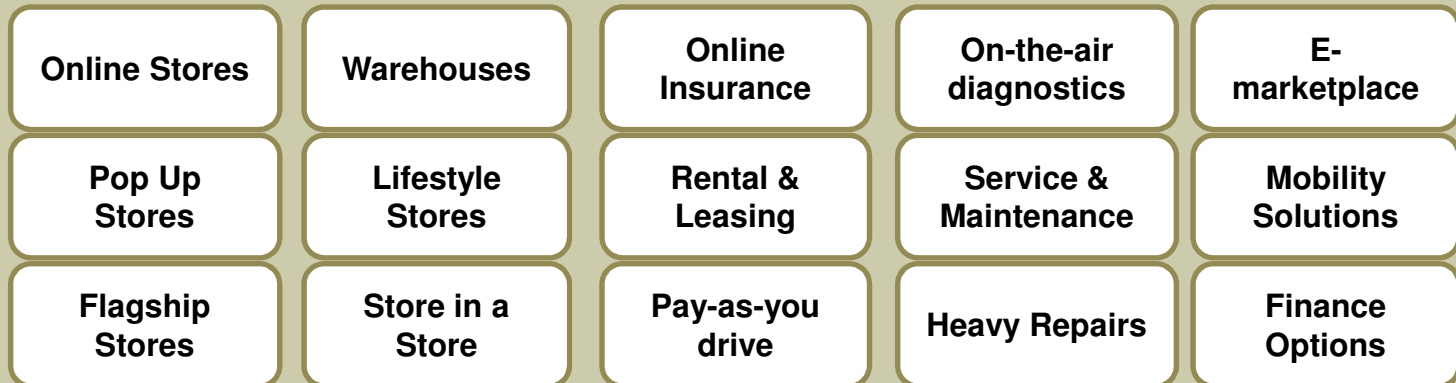
Bundled (Single Location, One-stop-Shop)

Traditionally all automotive products and services were offered under one roof.



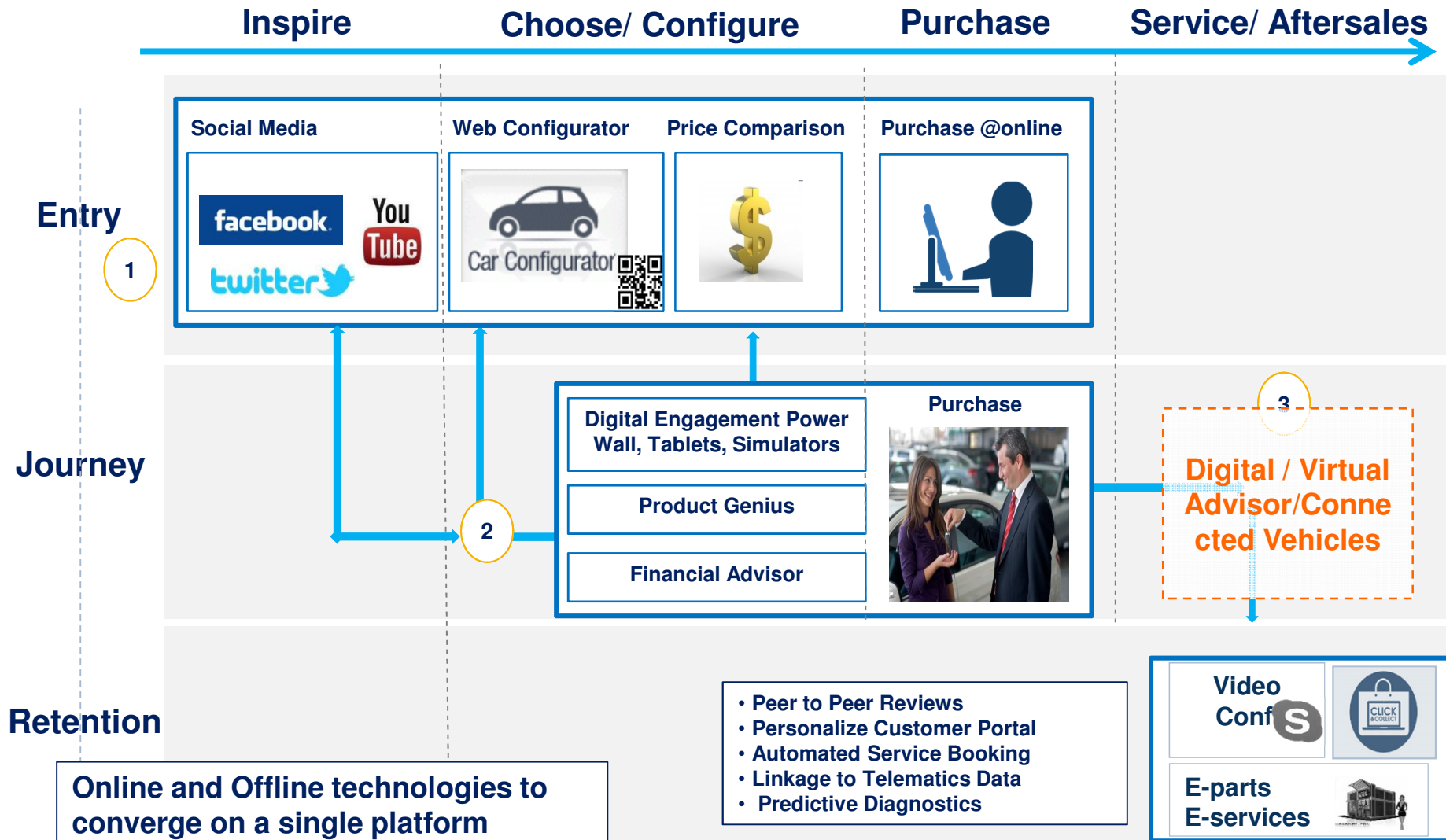
Unbundled (Multiple services, channels, aggregated online)

Distributors are expected to break up bundled operations to develop a variety of specialized options.



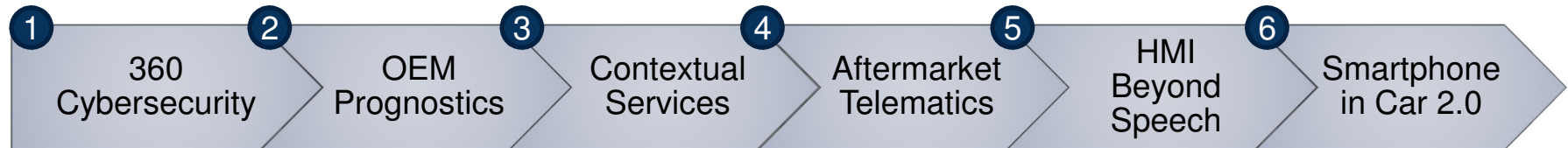
Source: Frost & Sullivan

Digital Touchpoints of a New Customer Journey That OEMs will Implement in 2015



Source: Frost & Sullivan; Images and logos are only for illustration

Key Connectivity Trends in 2015



Focus on In-Vehicle and Back End Security

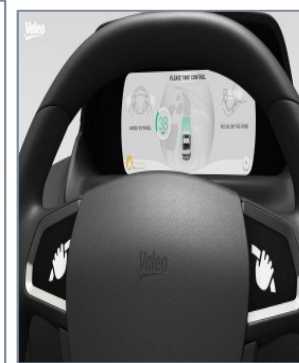
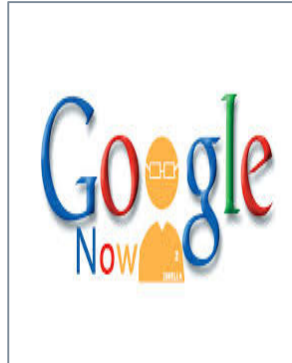
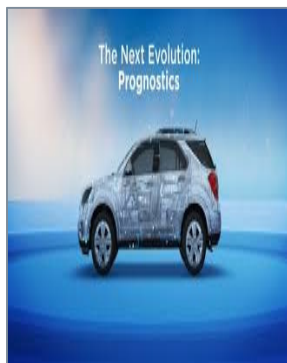
OEMs Harnessing Vehicle Data Continuously

Utilizing Cloud & Location for Multimodal Services

Moving beyond the OBDII into New Business Models

Utilize HMI Innovations in the Age of Vehicle Automation

Smartphone for Access and Automation



Source: Frost & Sullivan; Images and logos are only for illustration

Key Conclusions

1	Global sales are expected to grow by over 5 percent to reach 91.5 million vehicles . The US market is expected to reach 17 million and China to cross 26 million in sales.
2	The compact vehicle segment is expected to be the most attractive, accounting for over 31 percent share. New vehicle segments to evolve.
3	More than 50,000 cars are expected to be sold exclusively online which includes Daimler, Renault, BMW i brand, Dacia, Ford.
4	Aftermarket solutions will reach beyond insurance into the service and maintenance business.
5	OEM will take ownership of vehicle data from customers and move towards monetization of big data

Source: Frost & Sullivan

US Market 2014 Performance and Outlook

**Aziz Ucmakli, Lead Principal,
Honda R&D Americas, Inc.**

February 2015

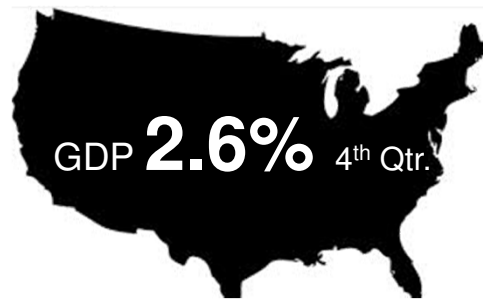


HONDA
The Power of Dreams

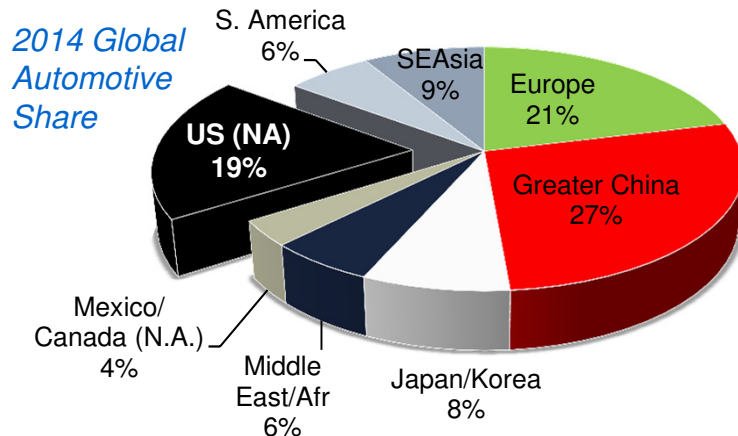
US Automotive Market Continues to Recover and Return to Pre-crash Levels



While some major global regions witnessed economic headwinds (resulting in stagnant auto sales growth), US was able to maintain robust sales in 2014 – enough to propel sales to pre-crash levels, thus contributing to the marginal global sales growth



- Sustained US GDP growth and continued consumer demand resulted in a 5th straight year-over-year sales gain for US auto sales.
- 2014 US auto sales = 19% of global sales
- 2015 (f) US auto sales = ~19% of global sales



2015 should be another year of sales gain, albeit at a slower rate, as the Federal Reserve is poised to begin raising interest rates. As long as economic and consumer fundamentals remain positive, most auto executives down play any potential fallout from rising rates in the near term (incremental increases would still keep most loan rates at historically-low levels and entice buyers).

Source: Honda R&D Americas, Inc.

Factors Driving US Economic Recovery

US economy finally appeared to get in to high(er) gear in 2014:

Moderate & sustainable **GDP**

Accommodative Fed **monetary** policy

Top line inflation remained in check

Generally **positive corporate balance sheets**

Lower fuel costs = 'tax cut'

Rising stock markets (wealth creation)

Homebuilding & **housing price recovery** (wealth creation)

Declining un-employment



American consumer confidence reached 11-year high in January given strengthening labor market & declining fuel prices

98.1

U.Mich. Consumer Confidence Index Jan '15

However, lingering issues remain in 2015 and beyond

Long term unemployed/ underemployed

High state and federal **debt levels**

Income growth stagnation

Aging population

Stagnant workforce growth

Political gridlock on **taxes** and **entitlement programs**

Economic growth & consumer confidence has not gone unnoticed by OEMs with new products and model refresh/ upgrades.

OEMs have been investing in US market and reaffirming their commitment over the past few years

Source: Honda R&D Americas, Inc.

US economy recovery fueled by the automotive market (or does the automotive market recovery fuel the US economic recovery?)

2014: 'Sweet Spot' in the Automotive Market Cycle



US fleet average age remained (11.4 yrs)
 Pent-up demand reduced but still strong factor
 Transactions prices remain firm
 Auto credit availability improved
 Inventory (production) remained in balance
 Incentive activity remained fairly under control
 Used car market prices remained firm

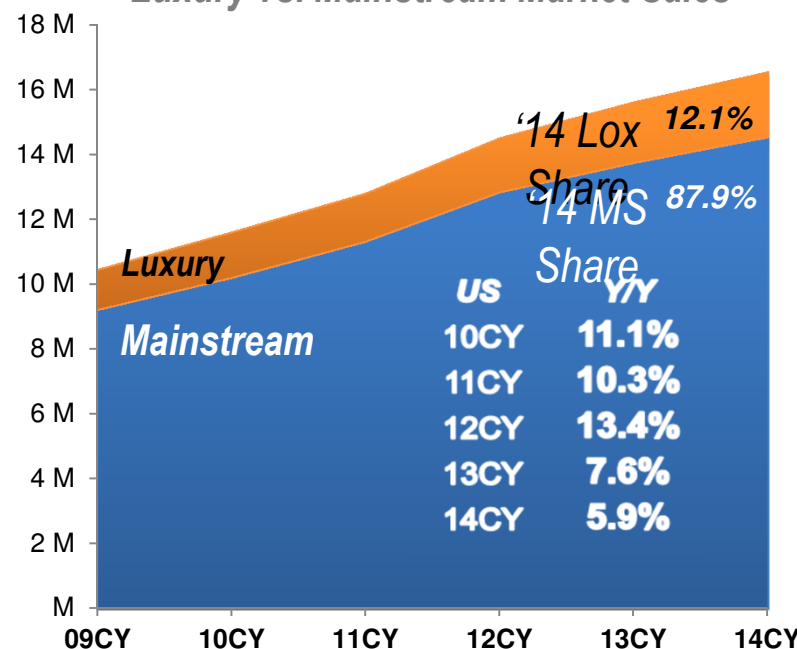


'14 SALES **16.5M** +5.9% Y/Y

'15 SALES (f) **~17.1M** +2.5% Y/Y
 10.3M in 2009 (+65%)

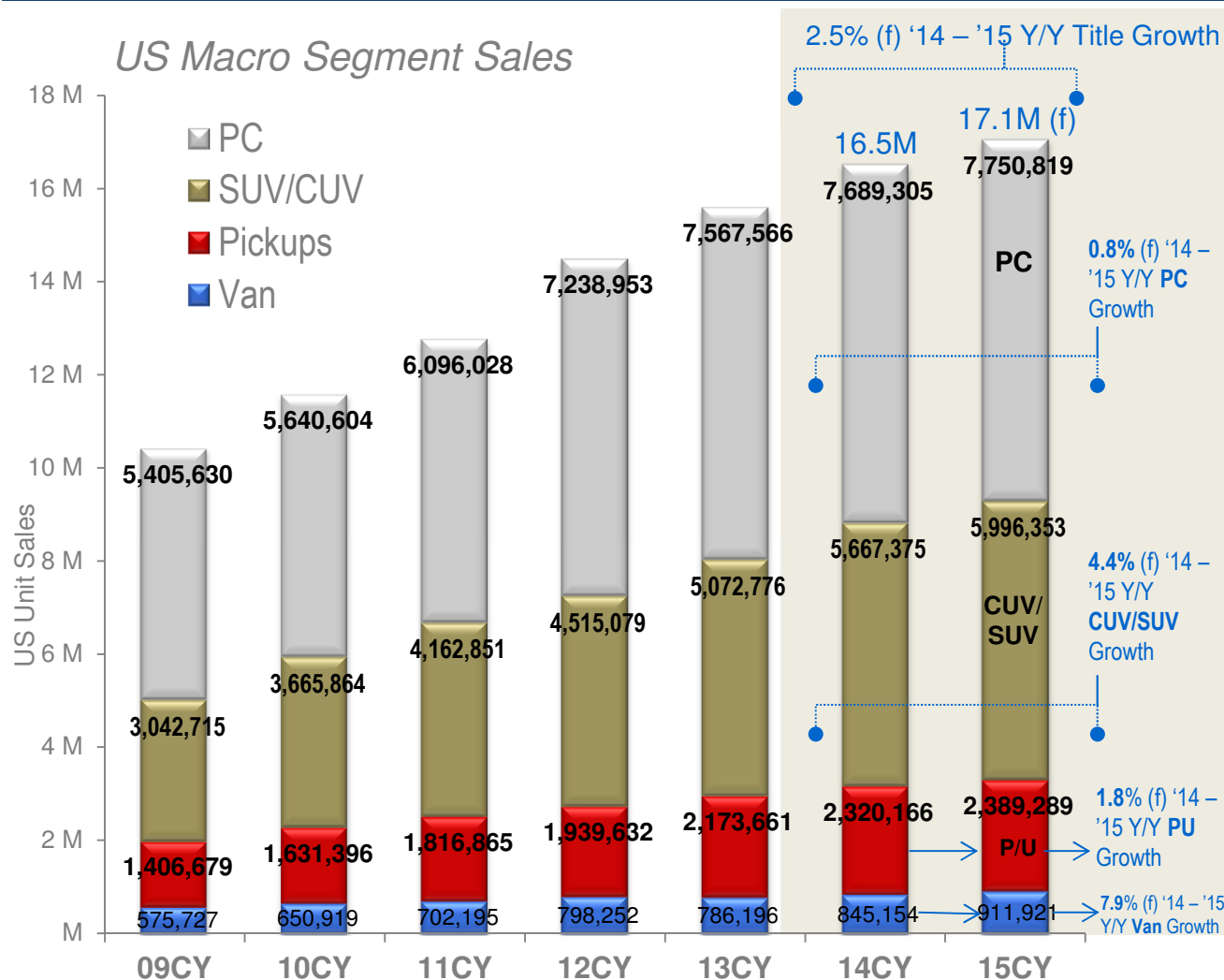
Sustaining market shifting from needs based recovery to wants driven market

Luxury vs. Mainstream Market Sales



Source: Honda R&D Americas, Inc.

Macro Segment Market Performance: CUV/SUV Showing Continued Strength



Takeaways from 2014/ Influence on 2015 sales:

1. Continued high demand for CUV
2. Generation Y makes its size/presence felt as it continues to enter to market in ever growing numbers.
3. Strong demand for luxury brands (especially German makes), including new lower priced entry models (CLA, A3) as well as range topping high end models (S-class, RR).
4. Technology (connectivity/ infotainment/ safety) is front and center in the market.

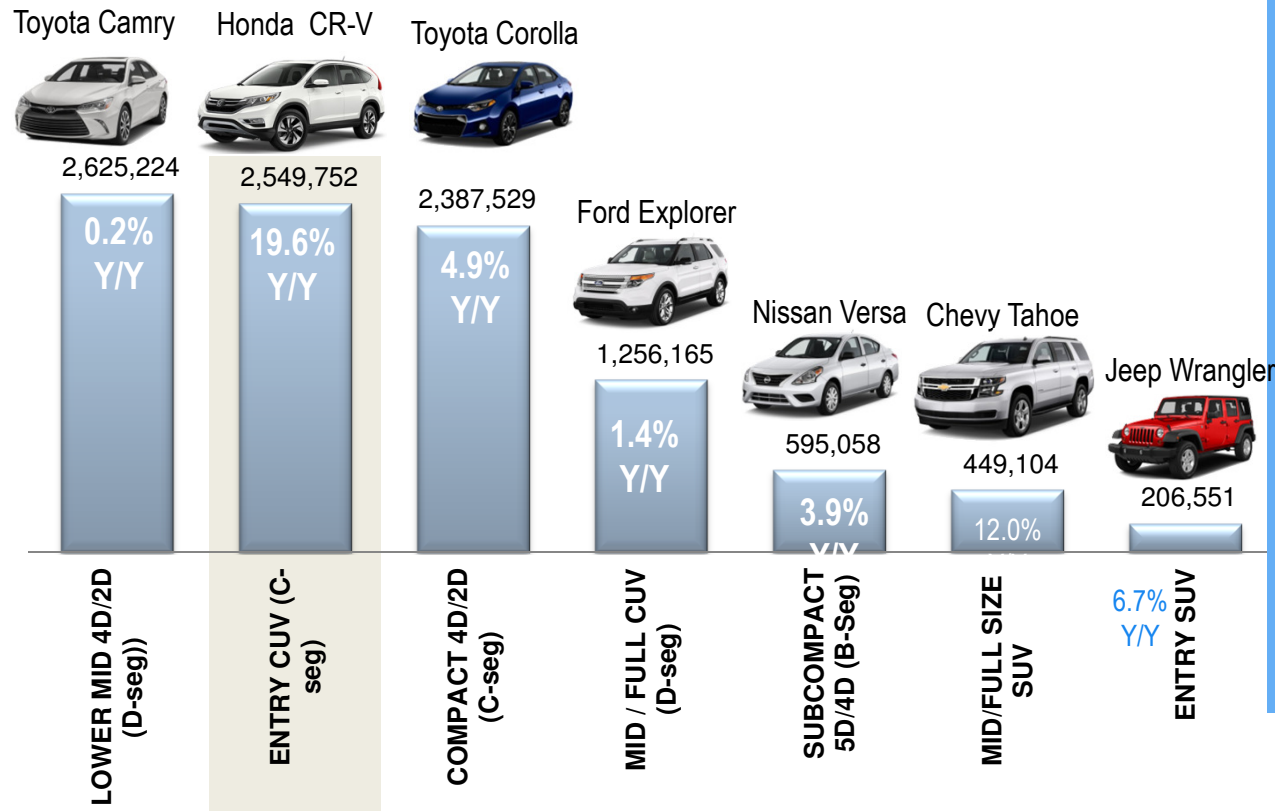
How can these factors sustain US market in the coming year(s)?

Source: Honda R&D Americas, Inc.

Consumers continue to turn to LDT products, especially within the CUV Segments

2014: CUV sales challenge traditional sedans in terms of popularity. Sedans are not 'unpopular' – instead CUV products have improved (and more nameplates are offered)

Mainstream Body Style Sales: 2014*



- Entry CUV market (C-segment Honda CRV, Ford Escape) products offer right combination of size/ maneuverability, function, price and fuel economy.
- Entry CUVs perform similar to passenger cars in terms of ride & handling, plus they offer higher positioning, AWD option and have improved fuel economy, in addition to more room for seating and cargo
- New growth segment: B-segment CUV (Honda HRV)



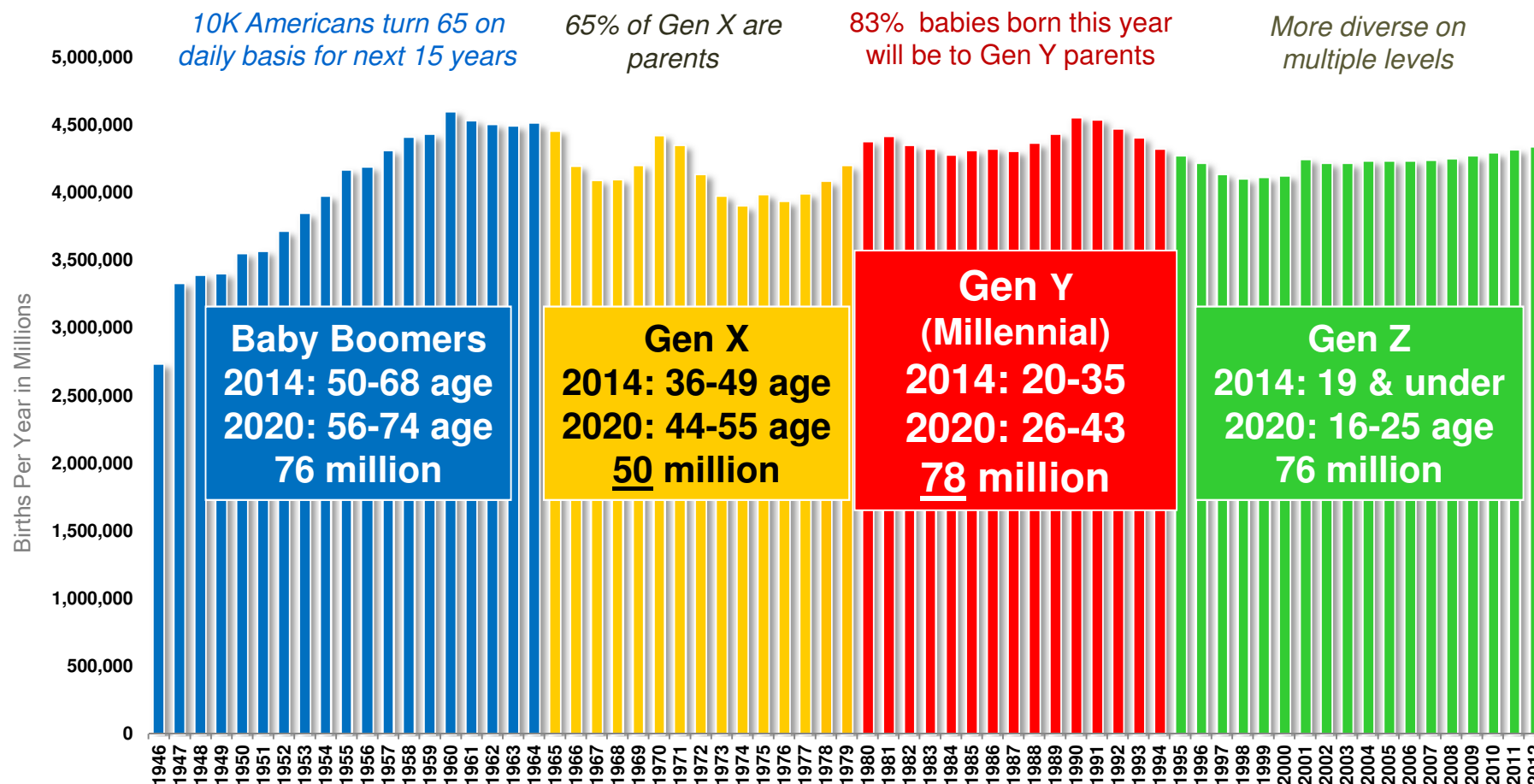
2016 Honda HR-V

Improving economy and falling fuel prices motivated consumers to purchase higher-margin and more functional LDT, especially in the CUV segments

*CUV & SUV Excludes MPV, STW, Luxury models

What factors would allow US automotive market to sustain, and possibly challenge the expected peak of 17/18M in the coming years?

Generational factors support long term sustainability of US automotive market - Although slow to enter automotive market, Gen Y impact is starting to be felt as they represent 1/4 of US population



Convergence of several factors is helping to bring more Gen Y to the market place.

Source: Honda R&D Americas, Inc.

Gen Y shows great potential for future new vehicle sales as life stage factors and improving economic conditions converge

As the US economy fell into the 'great Recession' in '08/'09, **Gen Y's reluctance to show interest in the automotive market** was attributed to the belief **Generation Y was disinterested in owning & driving cars.**

FORTUNE

Millennial malarkey: The myth that a generation hates cars



MTV Study Debunks 5 Myths About Millennial and Cars



"Generation Y like cars as much as any previous generation. They just haven't been able to afford them until now... they were just putting off (car buying) until they could afford them... being practical....As Gen Y consumers enter new life stages, earn higher incomes and grow their families, their ability and desire to acquire new vehicles is increasing."*

Convergence of demographic and economics factors to help Generation Y move into the automotive market

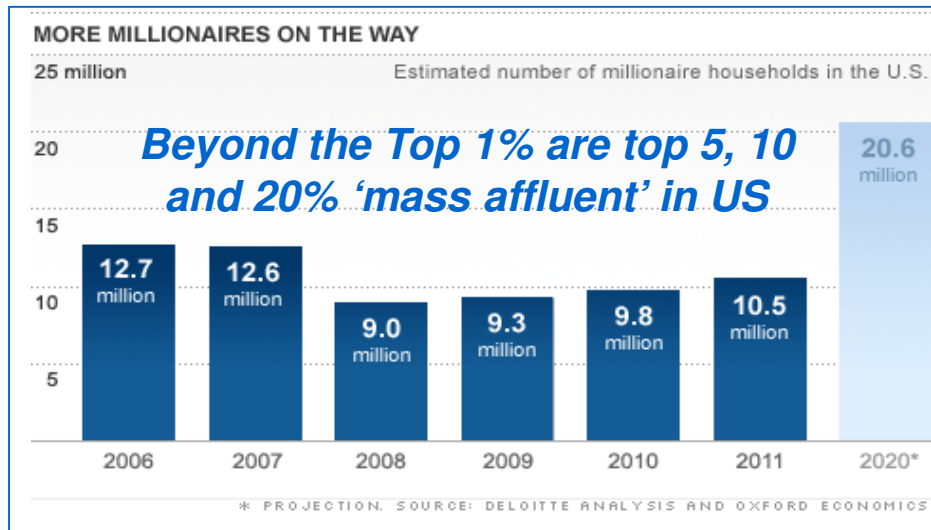
- Gen Y median age: **27**
- Median age for first marriage: **29** (m) & **27** (f)
- First-time new car buyer median age: **30**
- 2014: Gen Y automotive shoppers (26% of retail sales) overtakes Generation X (24%)*
- Gen Y is passionate about cars: 70% of Gen Y enjoys driving vs.. 58% Boomers & 66% Gen X*

Generation Y will enter their peak HH formation & earning years by 2020 – as a result, shifting life stages requirements will precipitate new mobility needs -- as result, they are becoming the primary target for auto industry.

Source: Honda R&D Americas, Inc.

Within the complex US income inequality story is the growth of the 'mass affluent'

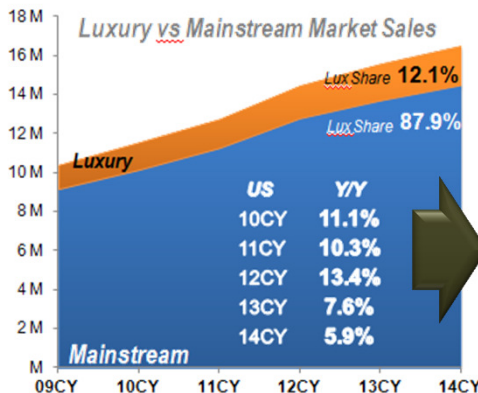
Growth in affluent HHs sustaining demand for luxury vehicles along entire price range spectrum.



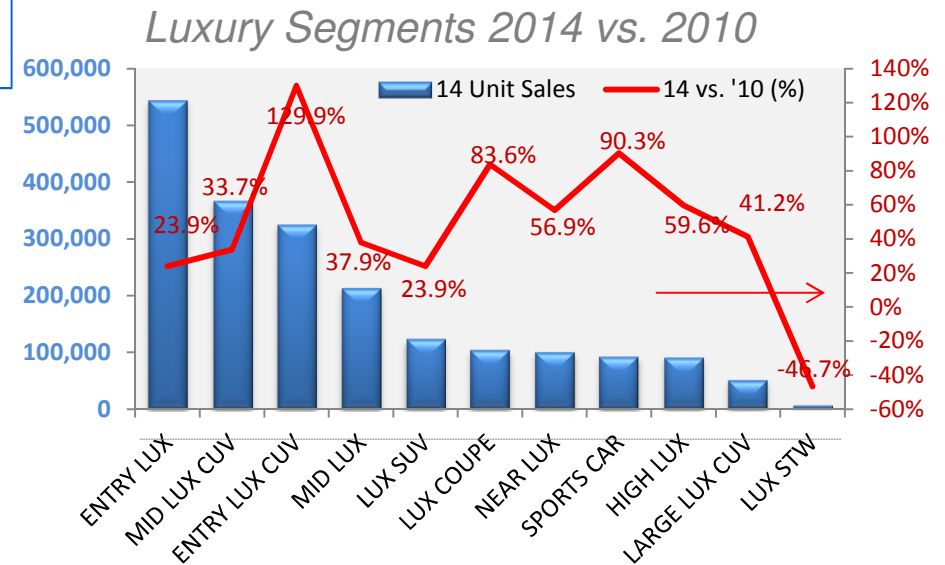
*"...(new) research suggests affluent Americans are more numerous than government data depict, encompassing 21% of working-age adults for at least a year by the time they turn 60." **

*Source: Washington University in St. Louis

US Luxury Market



Y/Y %	LUX	M/S
10CY	14.8%	10.8%
11CY	5.5%	10.9%
12CY	13.1%	13.4%
13CY	11.1%	7.2%
14CY	7.6%	5.7%

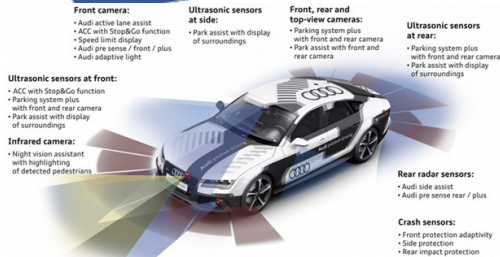


Source: Honda R&D Americas, Inc.

Connectivity Influencing Automotive Markets



Large automotive presence at **Consumer Electronics Show (CES)**
(1/15, Las Vegas) – dedicated technology show case for Auto OEM



Audi Piloted Driving Concept



MB F015 Autonomous



- Impact of Connectivity/ Infotainment Technology on Automotive Industry
- Proliferation of partnerships between Automotive OEMs and consumer electronics firms



Tech represented at CES is integral to the speed of change facing the automotive industry and societal expectations/needs

Source: Honda R&D Americas, Inc.

Overview of the Upcoming 2015 Intelligent Mobility Workshop to be Held on 1st and 2nd July

<http://ww2.frost.com/event/calendar/urban-mobility-30-2015>



1st day at the House of Lords/Common
Day1: Structured debate & Networking in the House of Commons



2 Day event
Interactive workshop hosted by Frost & Sullivan in collaboration with Industry Partners



Over 200 Senior executives, decision makers, Government stakeholders, Industry experts and thought leaders are expected to attend



Highly Informative Panel discussions, interactive sessions and knowledge sharing on Intelligent and Urban mobility trends and future vision.



Key networking opportunity with Industry and government stakeholders.

All of these are in line to discuss and understand key trends within the industry and bring together high profile industry experts from mobility- related functions across the globe.

Next Steps



Growth Partnership Service
Become a Growth Partner to
develop your visionary and innovative skills



Join our GIL Global Community
Share your growth thought leadership and ideas



Events
Join our Board of Advisors to discuss
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Growth Consulting
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The Twitter logo, featuring the word "twitter" in a light blue, lowercase, rounded font with a white outline, set against a light blue rectangular background.

www.twitter.com/FS_Automotive

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