Disruption in Automotive

Advancing Tech Adoption

User Experience (UX) is the latest battleground for quality impacting satisfaction

The Head

The Heart
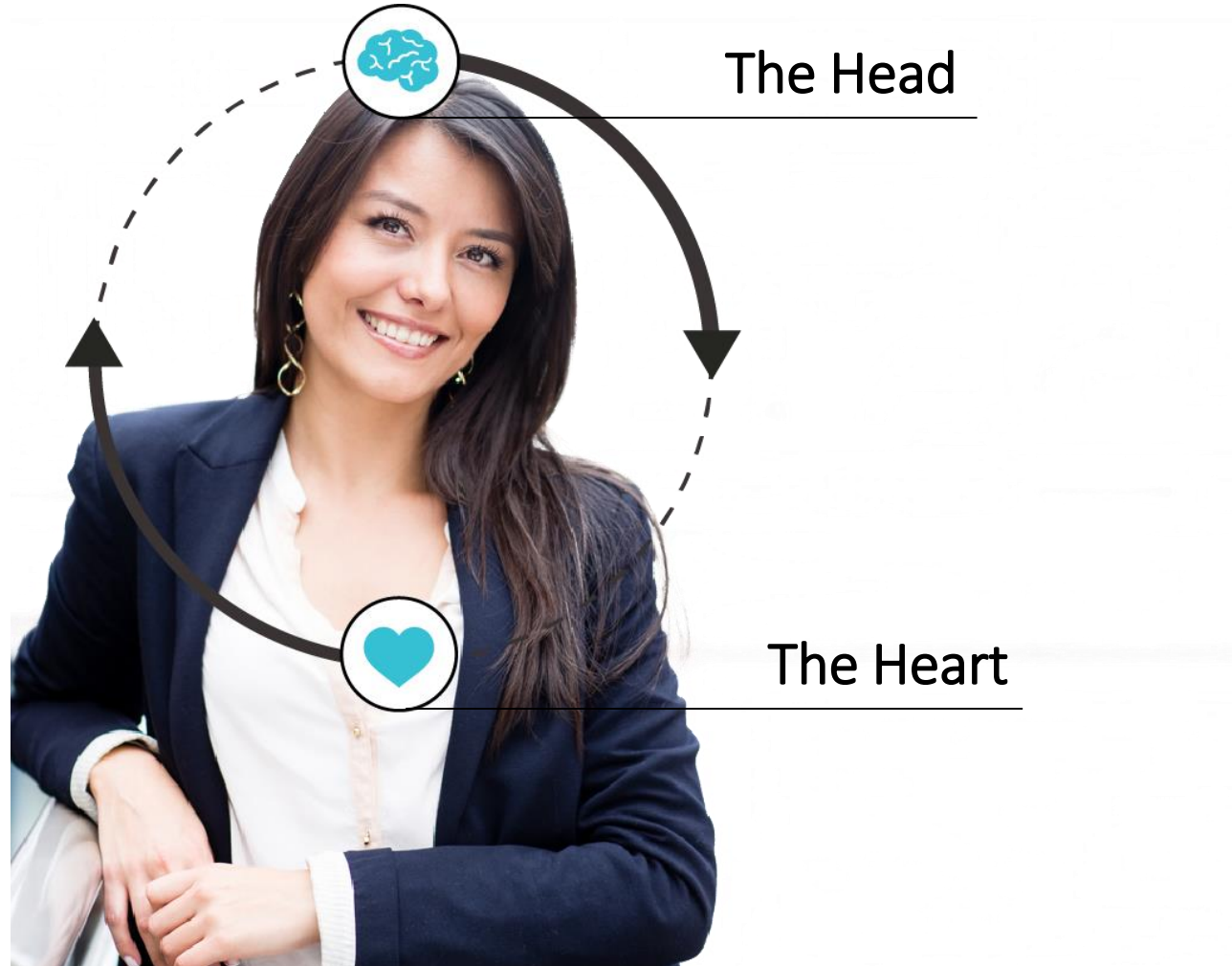
Mobility Disruption

- Automated Vehicles
- Ride Hailing
- Car Sharing
- New Energy Vehicles
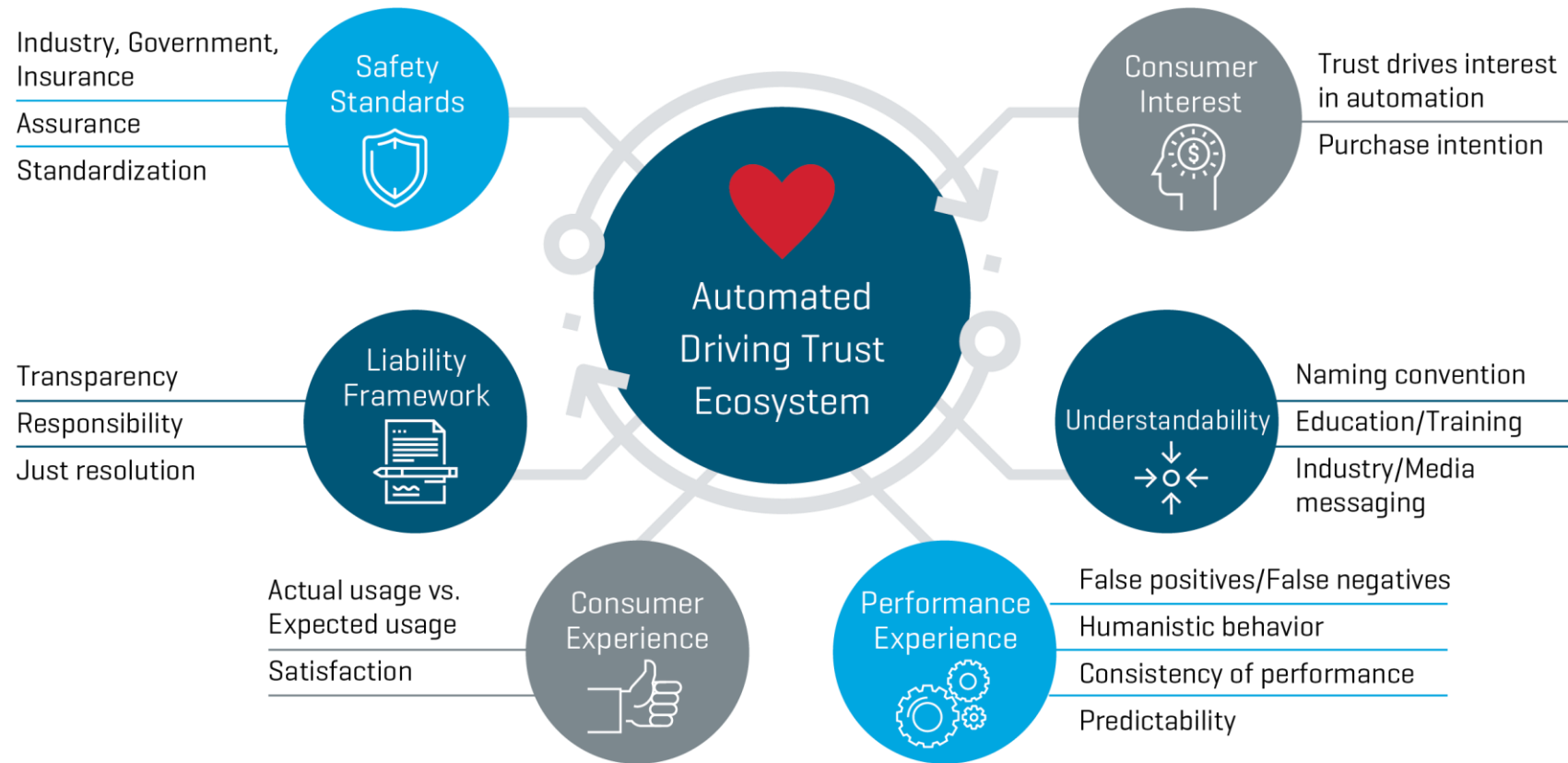- Connectivity Services
- Ownership
- Ecosystem Impact

MEASURING EARLY ADOPTION

TRUST IN TECHNOLOGY

TODAY'S EXPERIENCE WITH LOWER LEVELS OF AUTOMATION WILL IMPACT ACCEPTANCE FOR HIGHER LEVELS OF AUTOMATION TOMORROW

TRUST EXPERIENCES WITH COLLISION PROTECTION

ANNOYING OR BOTHERSOME COLLISION PROTECTION SYSTEMS IMPACT SATISFACTION MOST NEGATIVELY

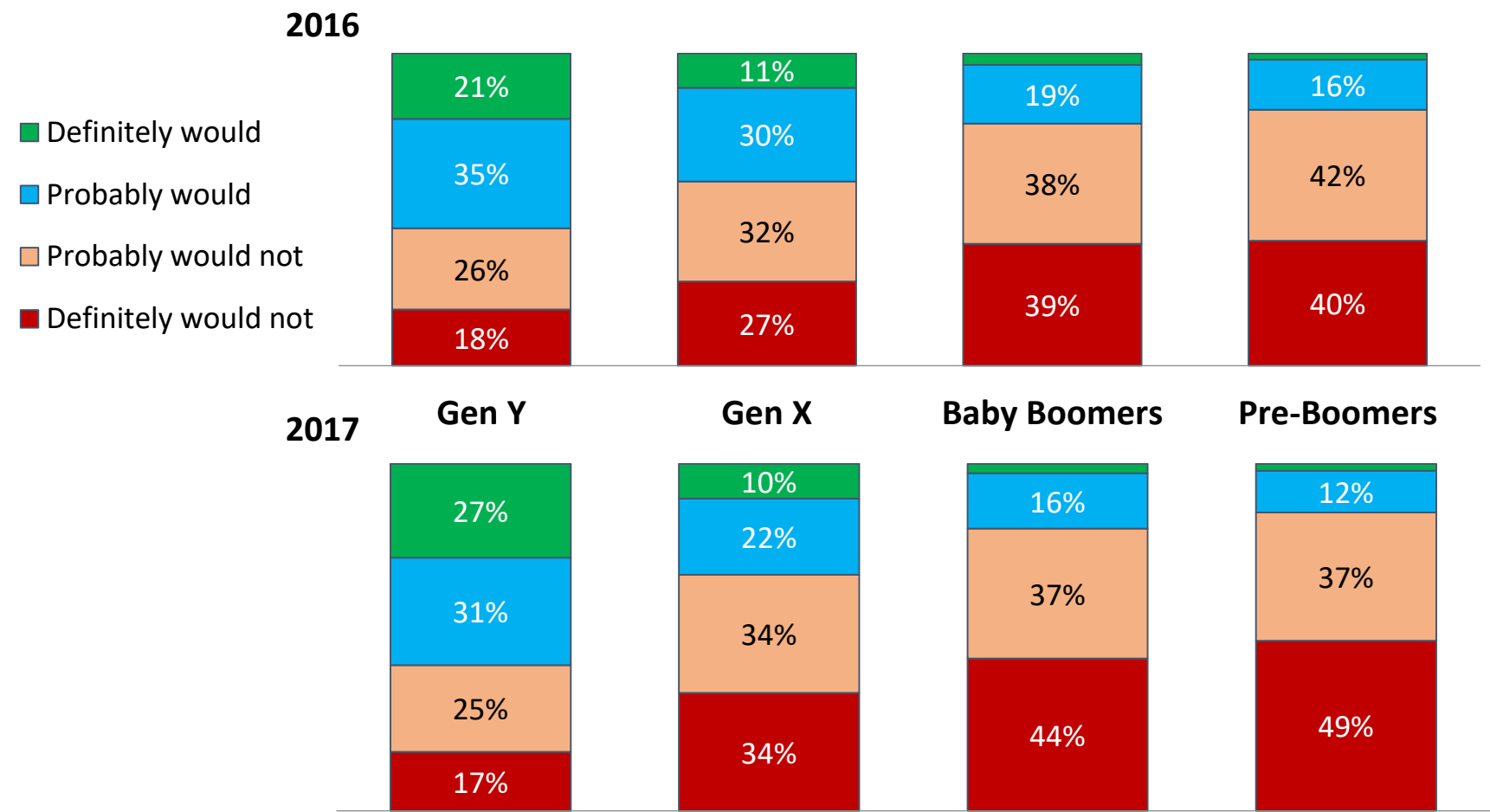**56%** Of owners report a feature(s) has Helped Avoid a Crash in the first 90-days of ownership

3x Lane-Keeping/Centering System is Annoying or Bothersome compared to other Collision Protection Systems

17% Lane-Keeping/Centering System has Startling or Unusual Behavior

TRUST IN AUTOMATED TECHNOLOGY
SHIFT TOWARD "DEFINITELY WOULD NOT" TRUST ACROSS NEARLY ALL GENERATIONS

2016

Legend:
- Definitely would (green)
- Probably would (blue)
- Probably would not (tan)
- Definitely would not (red)

2016 data

Gen Y: 21% / 35% / 26% / 18%
Gen X: 11% / 30% / 32% / 27%
Baby Boomers: 19% / 38% / 39%
Pre-Boomers: 16% / 42% / 40%

2017 data

Gen Y: 27% / 31% / 25% / 17%
Gen X: 10% / 22% / 34% / 34%
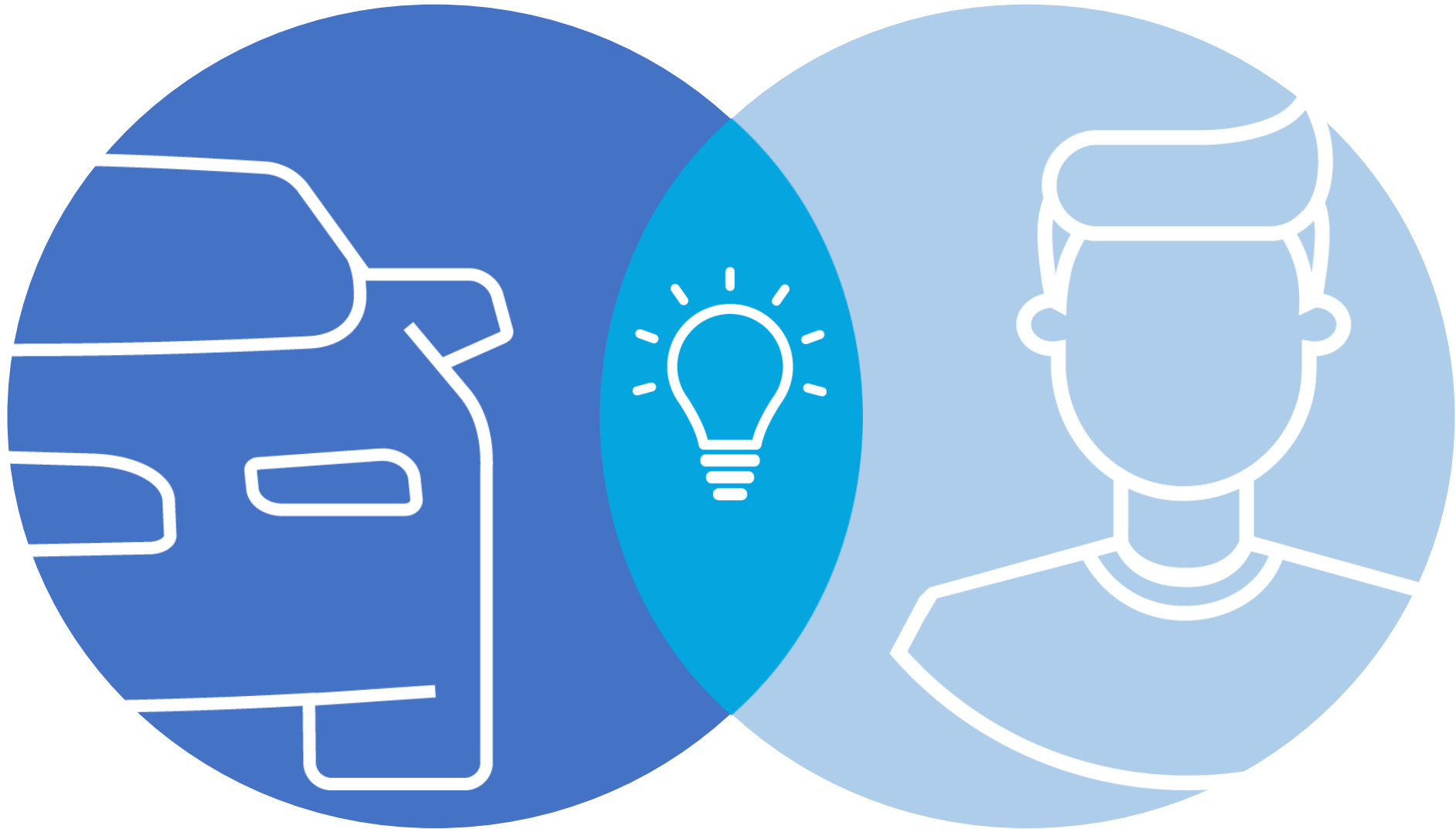Baby Boomers: 16% / 37% / 44%
Pre-Boomers: 12% / 37% / 49%

Concerns surrounding added technology complexities, privacy, and the potential for systems to be hacked, hijacked, or crash are prominent among consumers in all generational groups
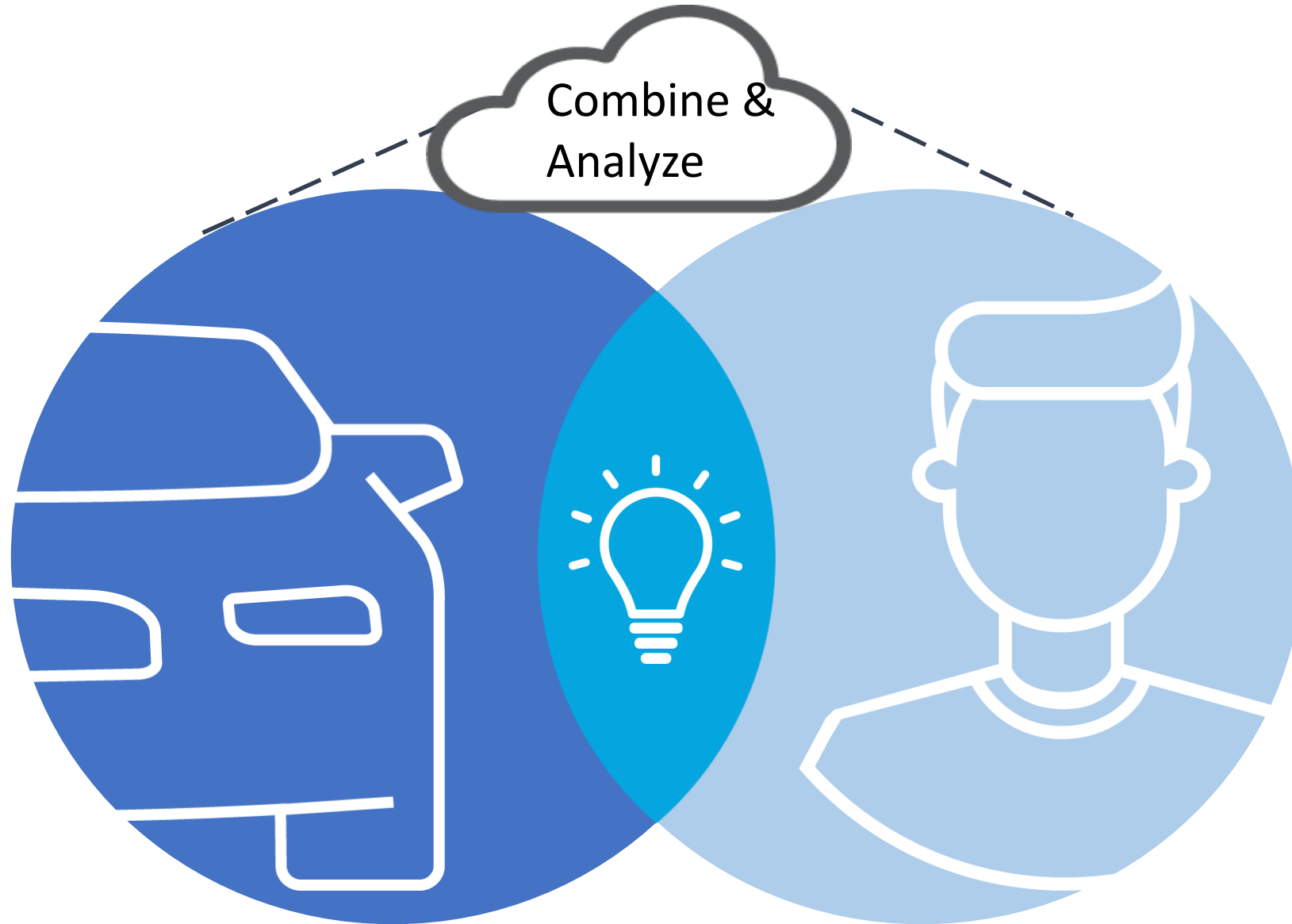
J.D. Power defines the generations as Pre-Boomers (born before 1946); Baby Boomers (1946-1964); Gen X (1965-1976); Gen Y (1977-1994)
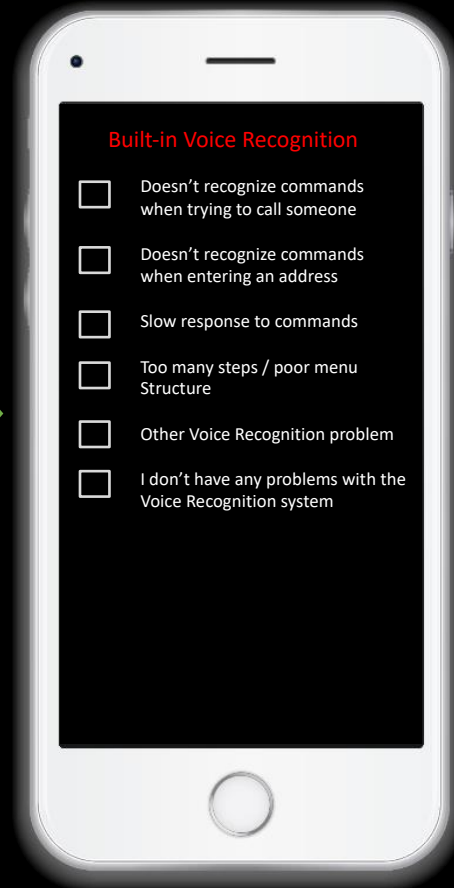
Source: 2016 and 2017 J.D. Power U.S. Tech Choice Study

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VOICE OF THE CUSTOMER MEETS VOICE OF THE VEHICLE ™

MERGING CUSTOMER SENTIMENT WITH VEHICLE DATA

Combine & Analyze

USE CASE – VOICE RECOGNITION

Built-in Voice Recognition

- Doesn't recognize commands when trying to call someone
- Doesn't recognize commands when entering an address
- Slow response to commands
- Too many steps / poor menu Structure
- Other Voice Recognition problem
- I don't have any problems with the Voice Recognition system

Events Required for Report

- **VrDialogActive**
- **SessionStatus**
- **Location**
- **VR Microphone State**
- **VR State**
- **VR Available**

USEFULNESS

Feature Usage Rate

- ■ Tried, but no longer use
- ■ Never tried to use

Feature	Tried, but no longer use	Never tried to use
In-Vehicle Concierge Services	8%	60%
Automatic Parking System	8%	44%
In-Vehicle Mobile Router	11%	37%
Built-In Apps	8%	22%
Vehicle Smartphone App	7%	22%

FUTURE DEALERSHIP EXPERIENCES

Customer Behavior Sensing

Interactive Display

Media Wall

Personalized Clienteling

Virtual Experience

Digital Information Stand

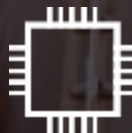Content & Device Management

PETER3787

Source: Samsung SDS, Samsung Nexshop

By 2025, 100% of all cars will be connected

>100 ECUs in some models

>100,000,000 lines-of-code and growing

84M vehicles recalled in US in 2015

Growing rate of software related recalls

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A Clear Market Need for OTA Updates

Mitigate **cyber security** attacks

Meet **production** reflash time constraints

Reduce recall and warranty **costs**

Map updates for navigation and **ADAS**

Build a deep real-time **understanding** of car SW configurations

Upsell features post sale

Improve ongoing **relationships** with the car owners

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