



Casualty Actuarial Society Annual Meeting:

# **Auto Insurance Telematics: Where the Data Meets the Road**

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# State of the Telematics Market: Where does telematics stand today?

# To participate or not participate, that is the question...

The genie is out of the bottle... insurers need response strategies

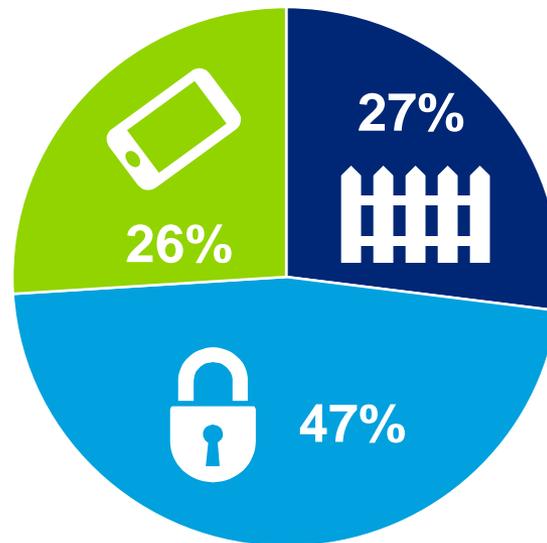
Early adopters		Undecided		Non-adopters	
					
Gaining a wealth of experience and insights	Privacy and pricing concerns among consumers and regulators	Collaboration with other insurers or third party organizations may level the playing field	Should consider a strategy to compete with UBI providers		Stand to lose profitable policyholders to UBI providers
Potential to offer more accurate pricing	Widespread acceptance is uncertain		At risk of acting too late — stand to lose profitable policy holders to UBI providers		Should build a strategy to compete with UBI providers

# How big is the driver market for UBI products?

**\*Percentage of those who would allow driving to be tracked via mobile device**

**Eager beavers:** 26% of survey respondents said they would allow monitoring, without stipulating any specific minimum discount in return.

**Naysayers:** 47% of survey respondents said they would not be interested in having their driving monitored under any circumstances.



**Fence sitters:** 27% of survey respondents said they might get on board with UBI if the price was right, given a high enough discount to make it worth their while.

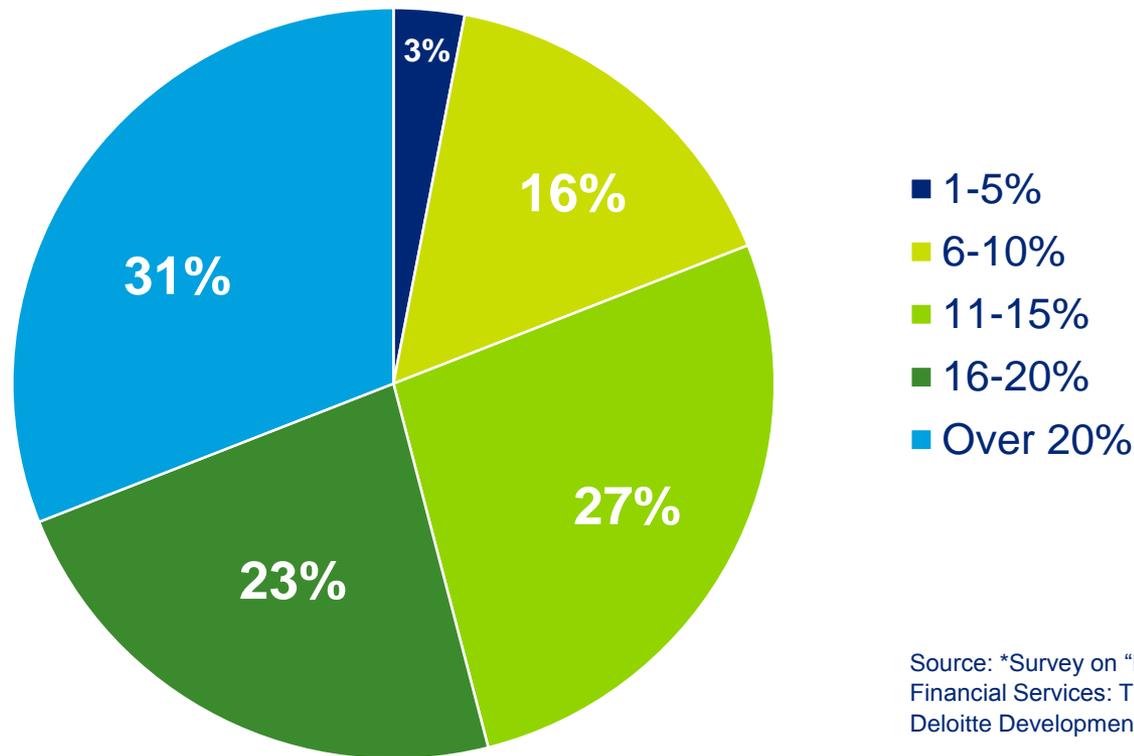
\*Source: Survey on "Mobility in Financial Services: The Next Frontier," Deloitte Development, 2013.

■ Depends on the amount of the discount ■ No ■ Yes

**A bifurcated market may develop, with those who choose to be monitored representing a separate class of drivers, supplementing at first and perhaps later supplanting traditional pricing factors.**

# How much do UBI policyholders expect to save on auto insurance at this time?

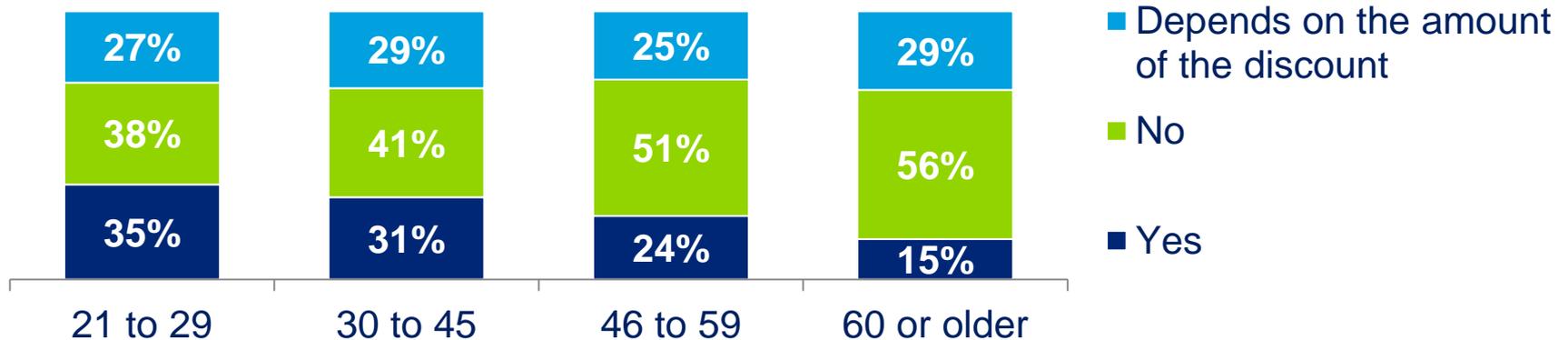
**\*Size of discount required to allow driving behavior to be monitored**



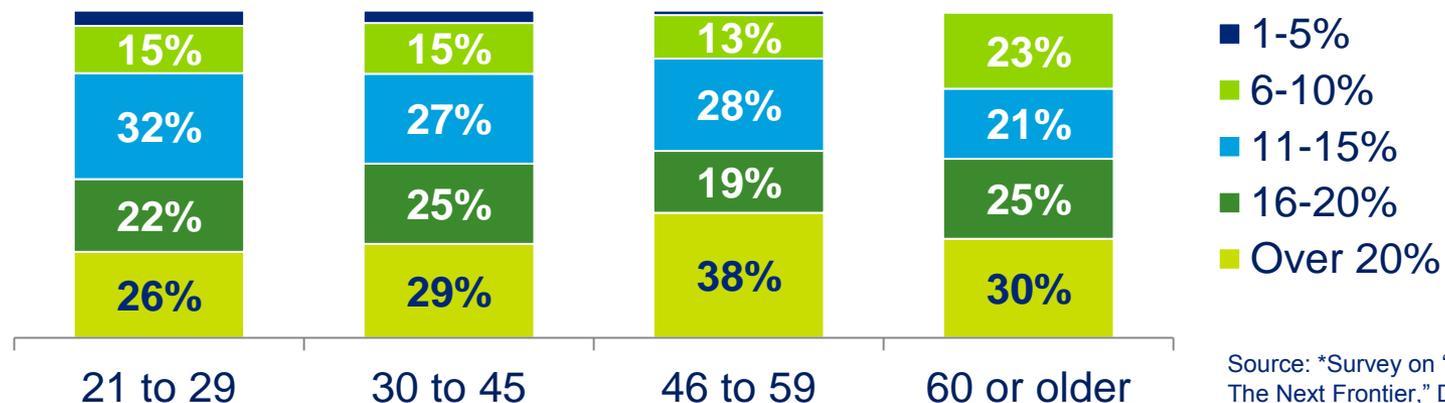
# Demographic markers for UBI adoption

*Age* is a factor in openness toward telematics use, and younger drivers would generally expect a lower telematics discount

Allowing driving behavior to be monitored based on potential for premium discount (by age)



Size of discount required to allow driving behavior to be monitored (by age)



Source: \*Survey on "Mobility in Financial Services: The Next Frontier," Deloitte Development, 2013.

# Demographic markers for UBI adoption

Across income, drivers tend to have similar attributes toward allowing driving behavior to be monitored

Allowing driving behavior to be monitored based on potential for premium discount (by income)



Size of discount required to allow driving behavior to be monitored (by income)

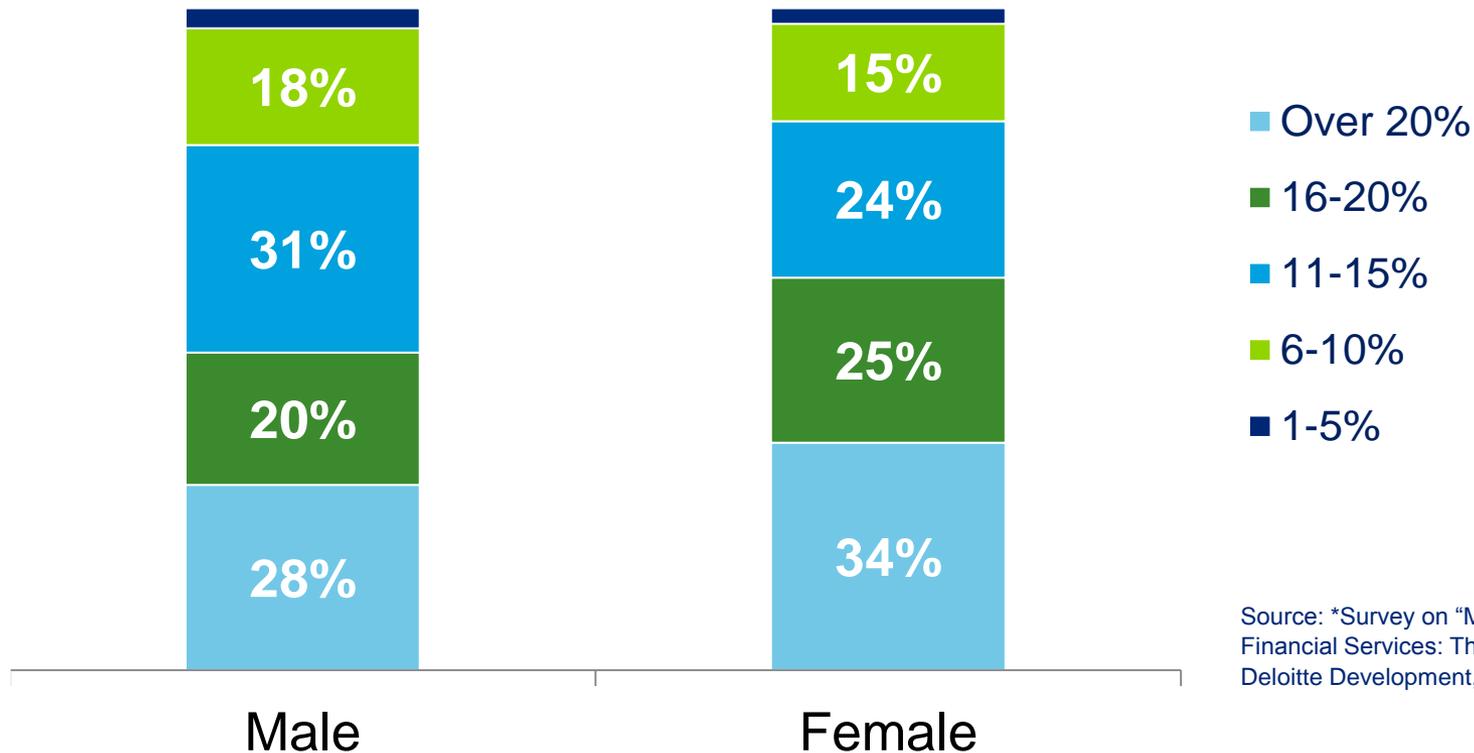


Source: \*Survey on "Mobility in Financial Services: The Next Frontier," Deloitte Development, 2013.

# Demographic markers for UBI adoption

Females tend to seek higher discounts as a quid pro quo for allowing driving behavior to be monitored

Size of discount required to allow driving behavior to be monitored (by gender)

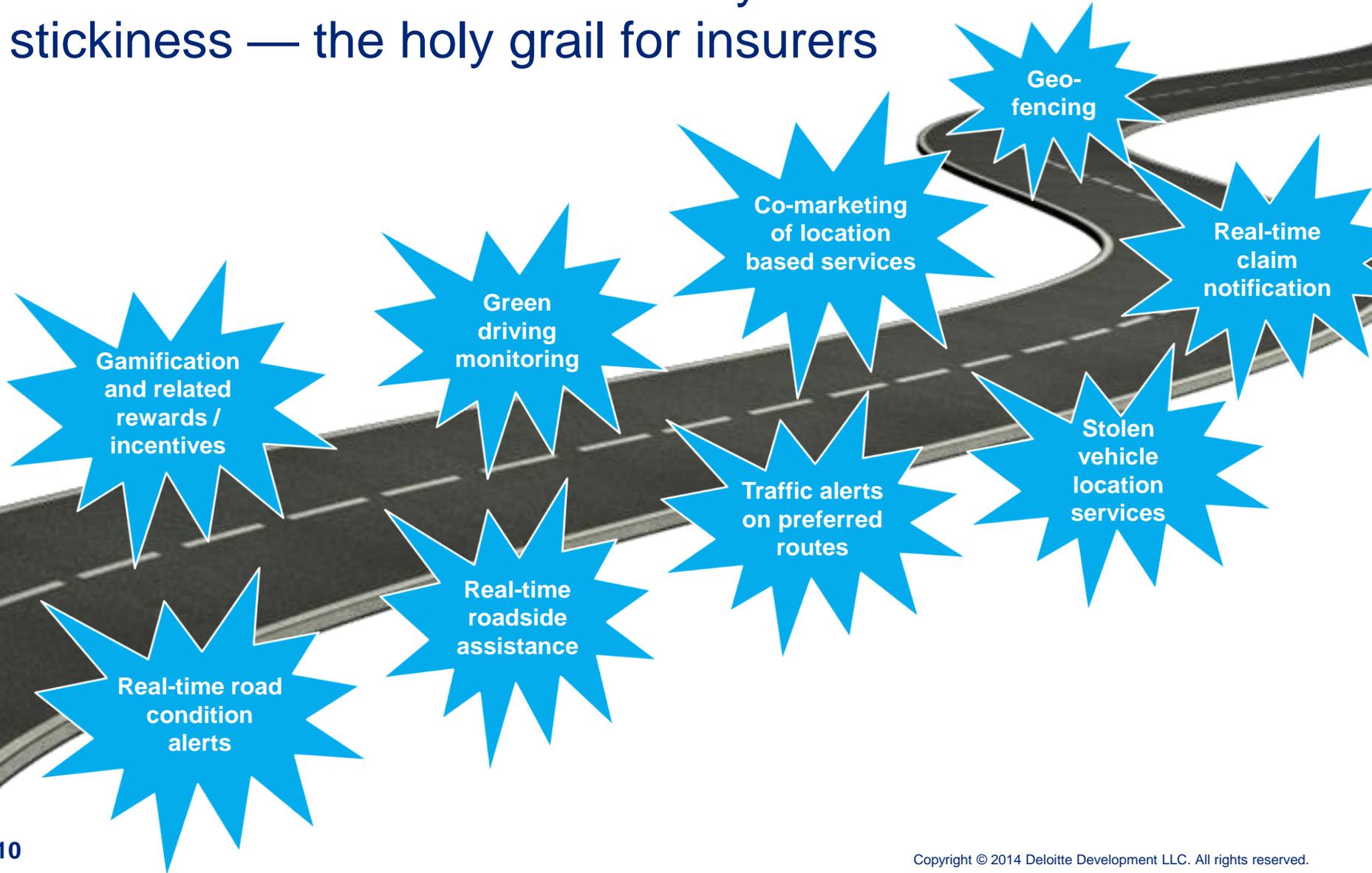


Source: \*Survey on "Mobility in Financial Services: The Next Frontier," Deloitte Development, 2013.

Overcoming roadblocks:  
How might insurers differentiate  
themselves with telematics?

# Retaining clients beyond lower premiums

Product de-commoditization may be the road to brand stickiness — the holy grail for insurers



# Security & privacy concerns — overcoming consumer resistance to ‘a closer look’

## Consumer concerns

Data could potentially be used against driver by police or litigator

Backlash from potential data breaches

Discomfort with backseat drivers and hackers could potentially locate driver

## Insurers should proactively communicate and educate

Put it in context — various other technologies already monitor driving (black boxes, traffic cameras, E-Z Pass)

Full disclosure of cyber security, end/user agreements, and privacy policy measures in place

Emphasize advantages of trading personal data for value proposition

The numbers game:  
Value of telematics depends  
on gaining actionable insights

# Data — it's a numbers game



## Data hurdles

1

### Collecting the data

- Collect and correlate data economically and effectively

2

### Achieving a critical mass of data

- A substantial volume of behavioral data must be collected in order to identify potential correlations

3

### Operationalizing the data

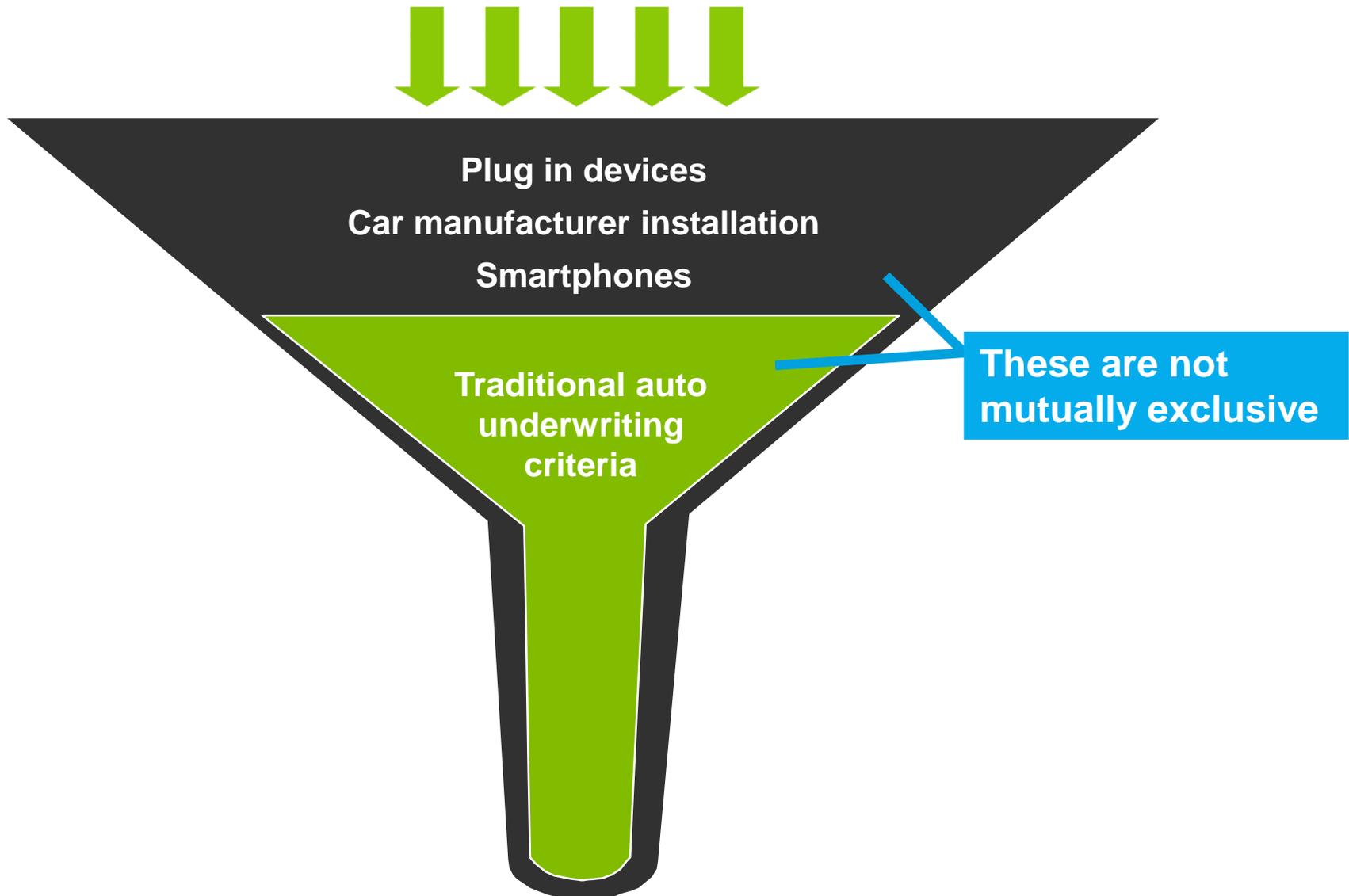
- Must determine telematics data points — alone and in tandem with other usage factors — to translate into a valid predictor of risk
- Correlating behavioral data with loss data

4

### Implementing a UBI program

- There's more to UBI than monitoring a policyholder's driving behavior (data management, data correlation, privacy, security, regulatory, consumer engagement, operations, etc.)

# Collecting the data



# Achieving a critical mass of data

2

Insurers will need to collect a substantial volume of data to identify potential correlations and create predictive models that produce reliable underwriting and pricing decisions.

## Large insurers

- Have an advantage of sheer numbers in terms of the amount of data they can gather in a relatively short time

## Small-medium insurers

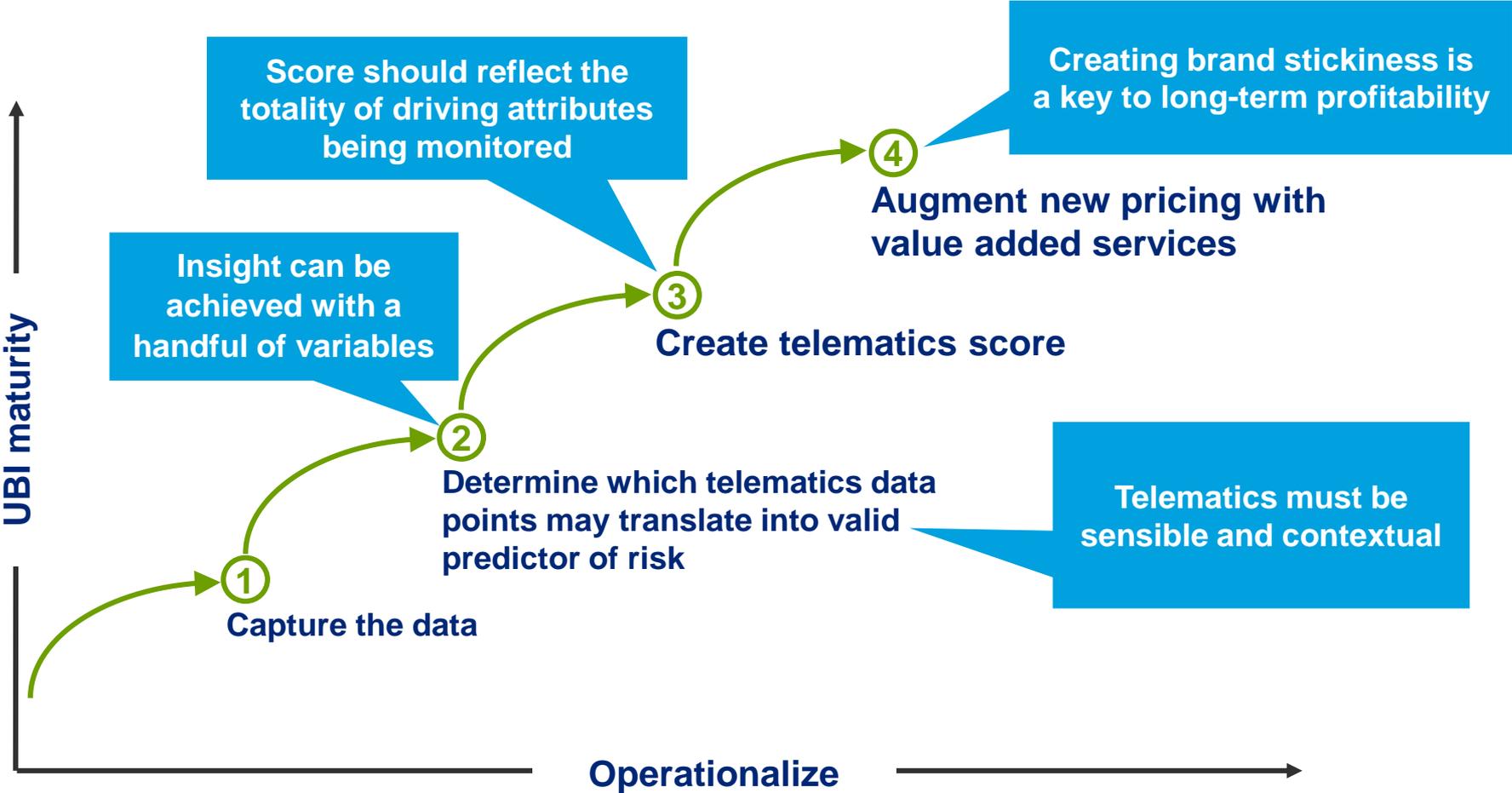
- Likely not going to be able to collect a sufficient volume or spread of data on their own with their existing numbers
- May consider collaborating with a group of insurers (data pool or data bureau) for broader insight and share the resulting telematics insurance score



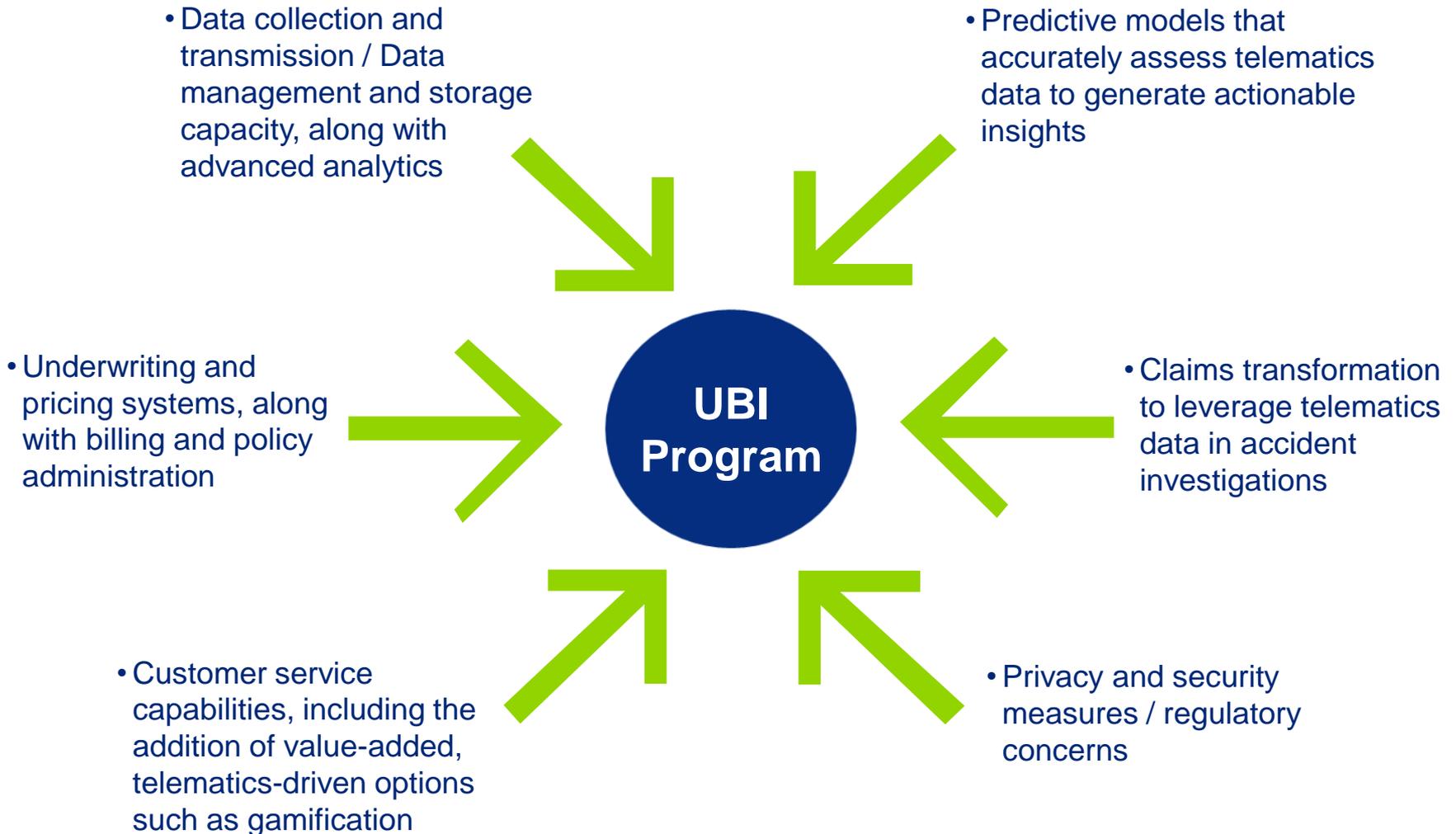
- Times
- Locations
- Road conditions when driving
- Rapid acceleration
- Drive at high or even excessive speeds
- How hard driver brakes
- How rapidly driver makes turns
- Whether driver uses their turn signals

# Operationalizing the data — cracking the code

Insurers must turn raw data into *actionable* correlations



# Implementing a UBI program

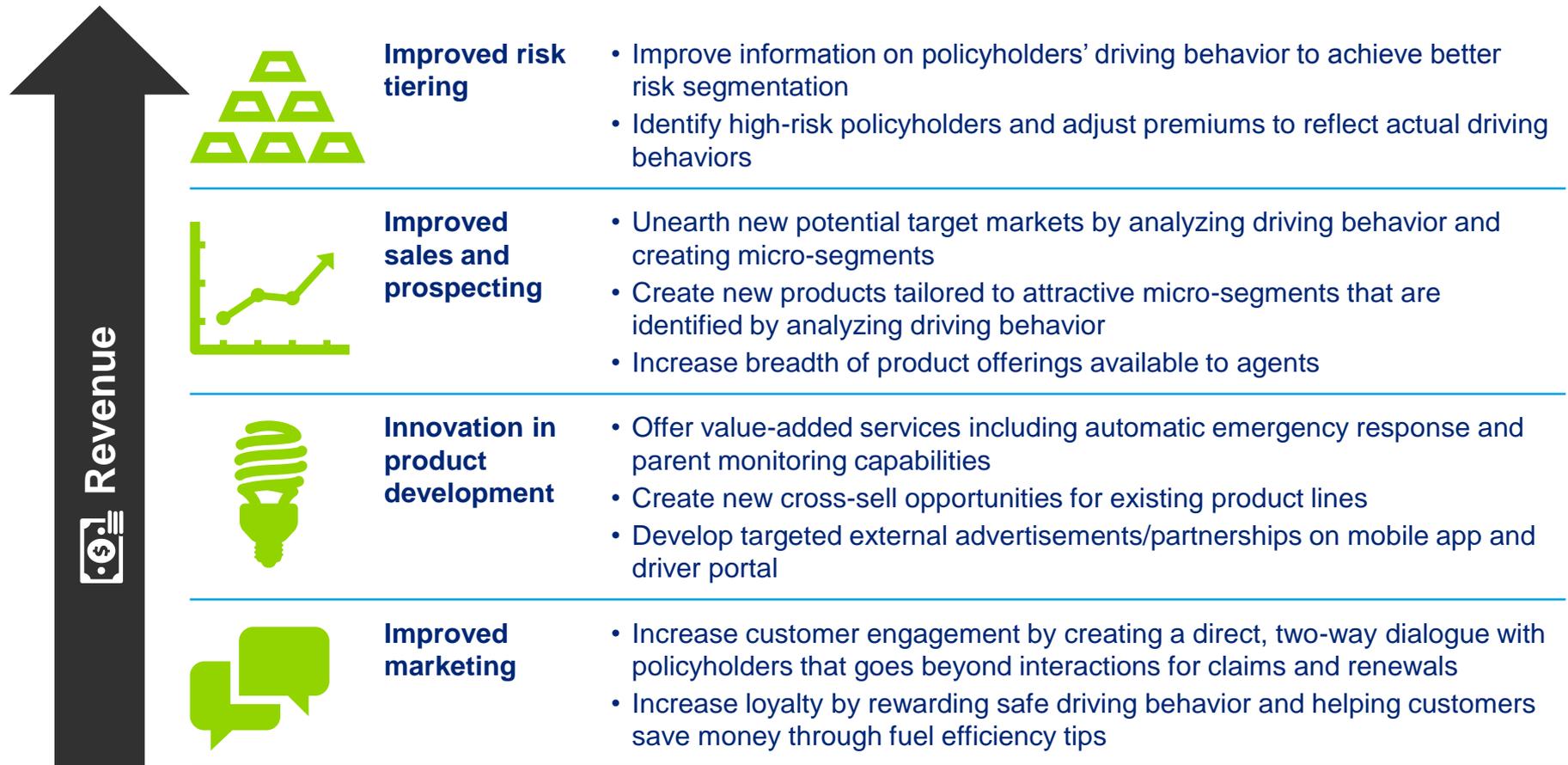


Show me the money!

What ROI might UBI carriers expect?

# How might telematics be a boon to revenue?

With minimal empirical data on ROI available to date, insurers should consider the potential impact on aspects of the business:



# How will telematics impact the bottom line?

Once telematics becomes the new paradigm, those who participate may potentially see costs positively impacted.



## Improved loss and LAE ratio

- Use telematics data for first notice during the claims process
- Improve driving behavior by incentivizing policyholders with safe driving discounts — could lead to lower claim losses
- Target a better risk profile for new business by leveraging the data gathered from in-force telematics business



## Improved expense ratio

- Reduce the volume of claims processed by insuring safer drivers
- Decrease customer acquisition costs by leveraging driving data to better target leads and prospects

**Show me the money: While the impact of telematics on ROI is difficult to predict at this point, non-adoption could undermine profitability for carriers.**

Oversight concerns:  
What might concern regulators?

# Oversight — regulators onboard with telematics, but for how long?

Once the industry matures and new pricing models are implemented, regulators and consumer advocates may challenge some aspects of UBI programs.

## Positive regulator response to Initial offerings

With little initial downside to consumers to date, regulators are responding positively to optional usage-based insurance products.

- Consumers are rewarded with a preliminary discount if they opt-in
- Those who opt-out have no significant consequences

## Potential for negative reactions long term

Insurers will likely need to demonstrate to regulators how UBI programs generate fairer rates while promoting safer driving overall

- Offers real-time feedback on speed, acceleration, braking, and turning
- Provides incentives to drivers to improve driving behavior to earn lower premiums
- Generates a “halo effect” as driving improves with surveillance
- Ensure opt-in feature for the program

Tipping Point

Next steps:

Where should insurers go from here?

# Next steps — where should insurers go from here?

## Early adopters



## Undecided



## Non-adopters



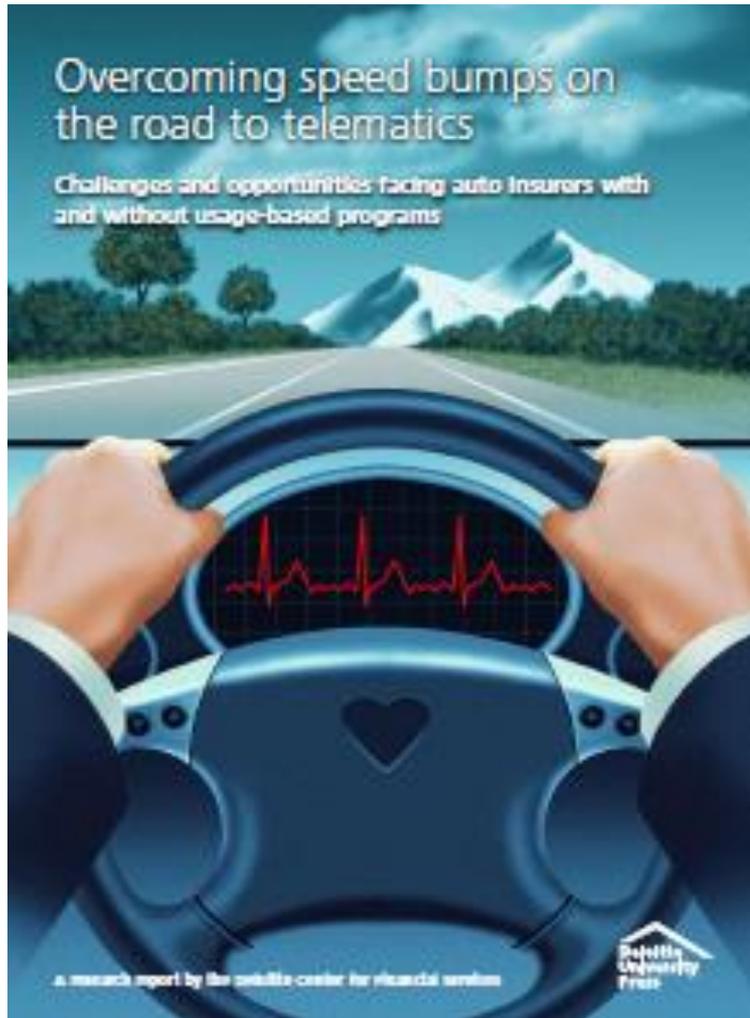
- Includes many of the biggest insurers, which gives them access to an enormous amount of data
- Largely implemented their UBI programs via monitoring devices installed in vehicles, which may not be the dominant evolving technology going forward

- It likely won't be easy catching up with early adopters, and delay may make it harder to leverage telematics data and derive value from it
- Small-to-mid-size players can access a critical mass of data and insights via third party data pools or bureaus

- Could define a new set of auto insurers
- Will likely need to develop a value proposition by relying on more traditional underwriting criteria while also introducing value-added services and product features to help differentiate and de-commoditize personal auto insurance

**The goal for *both* UBI carriers and those who stay with more traditional underwriting criteria is to remain competitive in a society where behavioral monitoring may eventually become the rule rather than the exception for insurance companies and policyholders**

# For more information, request a copy of Deloitte's research report on telematics...



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