

# Insurance Telematics is not UBI

## Sorry, not sorry

**Matteo Carbone**

Founder and Director, IoT Insurance Observatory

[@mcins\\_](#)

May 22<sup>th</sup> 2019

# Why have we to talk about insurance innovation?

*Insurance is about protecting the way people live*

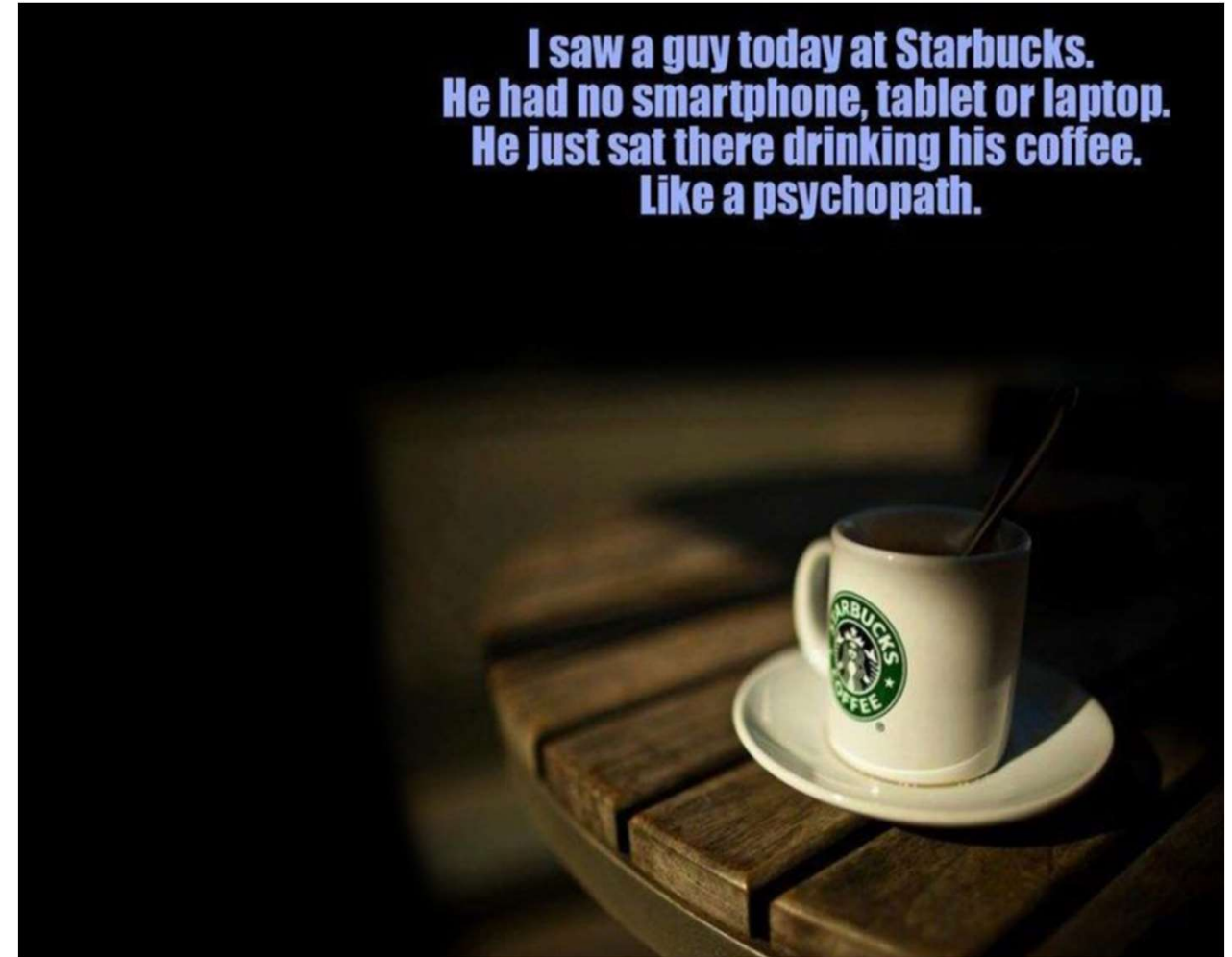
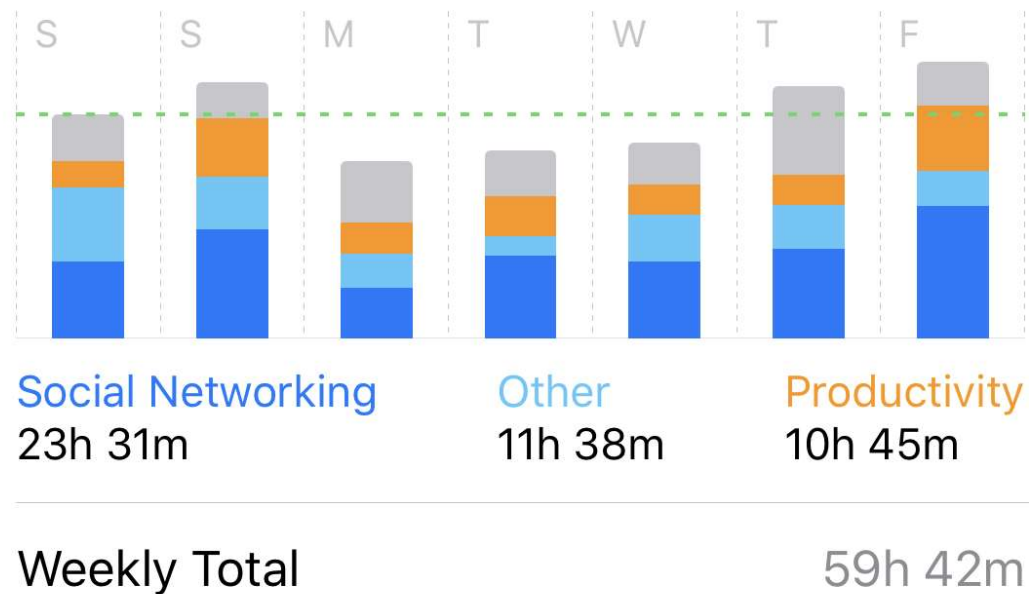
*Since 1347 Insurance has been a contract where someone promises to indemnify another against loss or damage from an uncertain event as long as premium is paid to obtain this coverage*



# Why have we to talk about insurance innovation?

*However the way people live is changing*

8h 31m per day ↑ 6% from last week



# Do you think InsurTech is only about digital distribution?



financeAds  
RISK APP  
NAVERA  
VIRADO

Aggregators  
Goji, policy bazaar, bayzat, AccuSure, ValChoice, facile.it  
Underwriters  
EVERQUOTE, ANIVO, eagleeye ANALYTICS, VERACITY, Analyze

ELEMENT  
Protect your bubble.com, Clover, kroodle, trov, Neosurance, KASKO, airsurety

Policy management  
riskgenius, pypestream, Knip, CLARK  
Services  
QMap, Oscar, BookDoc, tiassiste24, amino, URGENTLY

**+1500 Startups - \$26B funding**

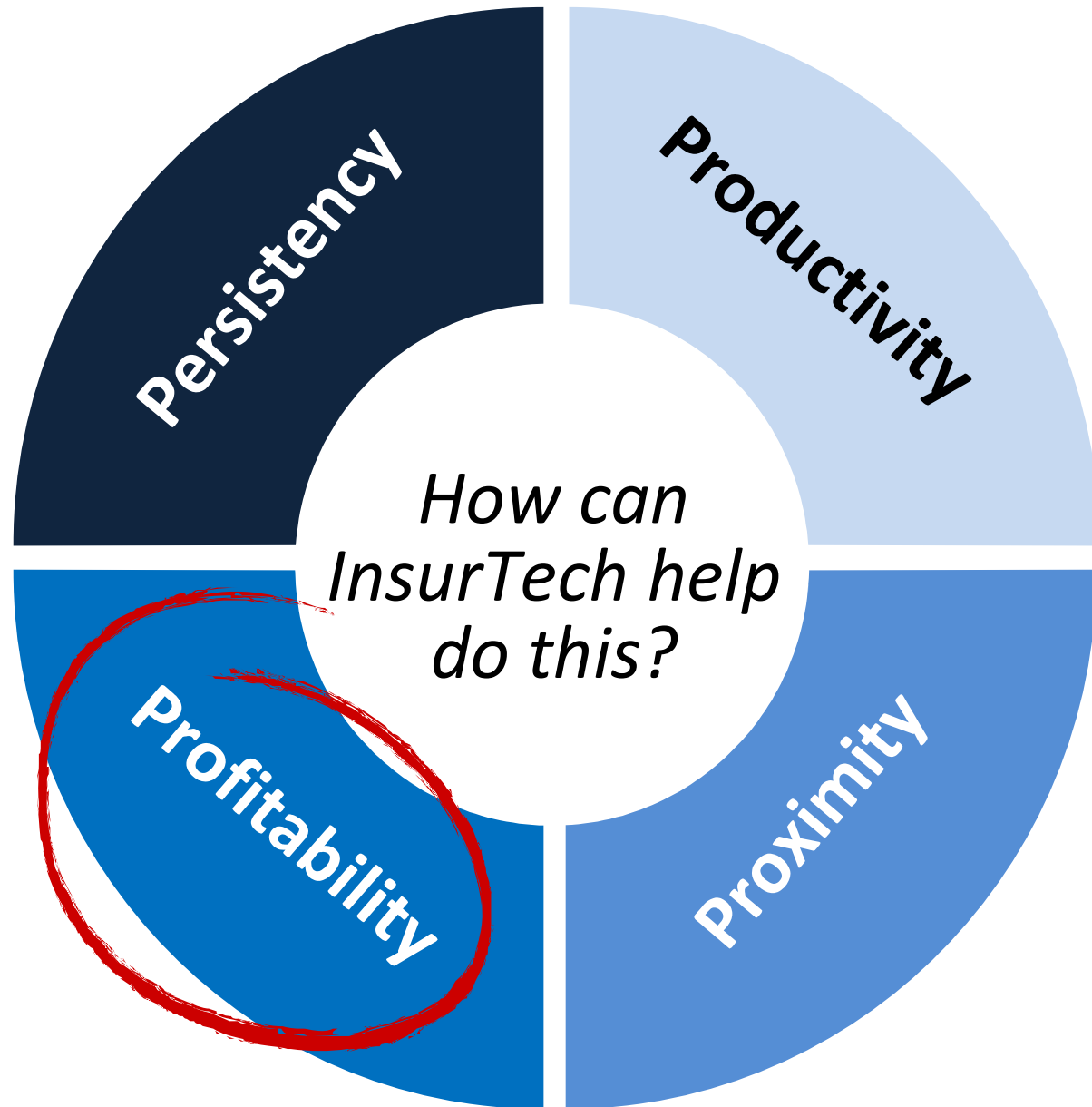
Internet of things  
Baseline, beam, Gaitup, TrueMotion, ybrain, carvi, AMODO, THE FLOOR, Vodafone Automotive, ICS, otonomo, Zbie, carrot, ALERT LABS

P2P  
feambrella, Lemonade, DYNAMIS, UVAMO, friendurance, VERSICHERIX, Wecover, insPeer, AXIEME, PeerSure, inspool, So-Sure, besure, TongJuBao

**It's not!**



# Why have we to talk about insurance innovation?



**Insurtech can make the insurance sector stronger and therefore more capable of achieving its strategic goal in this changing world: to protect the way people live!**

# My job is to advice Insurance Incumbents on the usage of IoT

## Matteo Carbone

InsurTech Investor and co-funder

NED and Chairman of the Innovation Advisory Board at **Net Insurance**

Founder and Director of the **IoT Insurance Observatory**

+11 years strategic consulting  
(former Principal with Bain & co.)

Keynote speaker and writer on insurance innovation

Global InsurTech Influencer



- This **Insurance think tank** has aggregated almost 50 international insurance groups, institutions and tech firms between Europe and North America
- The initiative has three concrete outcomes:
  - The most pragmatic **multiclient research** specialized in the **insurance IoT** domain
  - **One-to-one workshops** dedicated to each member to discuss research outcomes
  - **Plenary symposiums** with all the members together around the same table

# I have created a **think tank** which provides the members access to the most relevant insurance IoT knowledge globally

## Observer



The most pragmatic multiclient research specialized in the insurance IoT domain based on a constant observation on the usage of sensors in different insurance business lines around the globe

## Interpreter



We interpret best practices and pitfalls for the members leveraging experience built by advising almost 110 different organizations in more than 15 countries on IoT insurance projects

## Storyteller



The knowledge is delivered through workshops dedicated one-to-one to each of the organizations which are members of the Observatory and plenary symposiums both in North America and Europe

# My experience with IoT insurance

## Organizations

In the past 6 years, I advised more than 110 organizations (Insurer, Reinsurers, Brokers, Vendors, and Investors) in more than 15 different countries on IoT insurance projects

+110

## Market share

I've worked directly with players accounting for more than 80% of IoT insurance volumes (number of policies on auto telematics, smart home, and connected health/life)

+80%

## Papers

I have produced 5 white papers on Insurance IoT, which have been co-authored with prestigious international organizations

5

## Hours

Almost 1200 hours discussing concrete experiences, best practices and pitfalls with the executives of the organization members of the Observatory

+1200

+110

## Conferences

I have debated the insurance IoT opportunity at more than 110 conferences around the world since December 2015



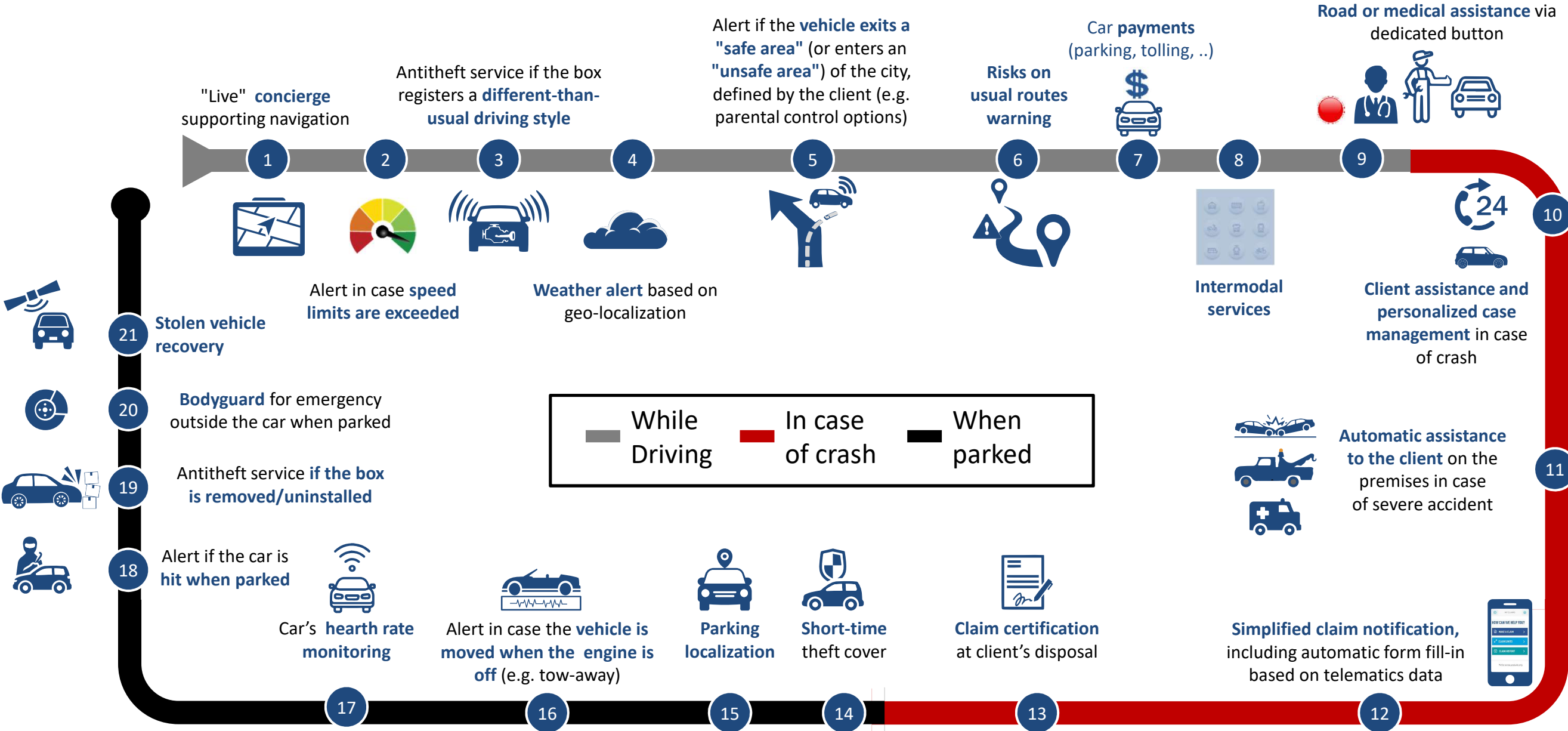


# Telematics value creation frameworks



# Both in Italy and South Africa insurers are selling telematics-based road side assistance the customer for an annual fee

## REAL CASES

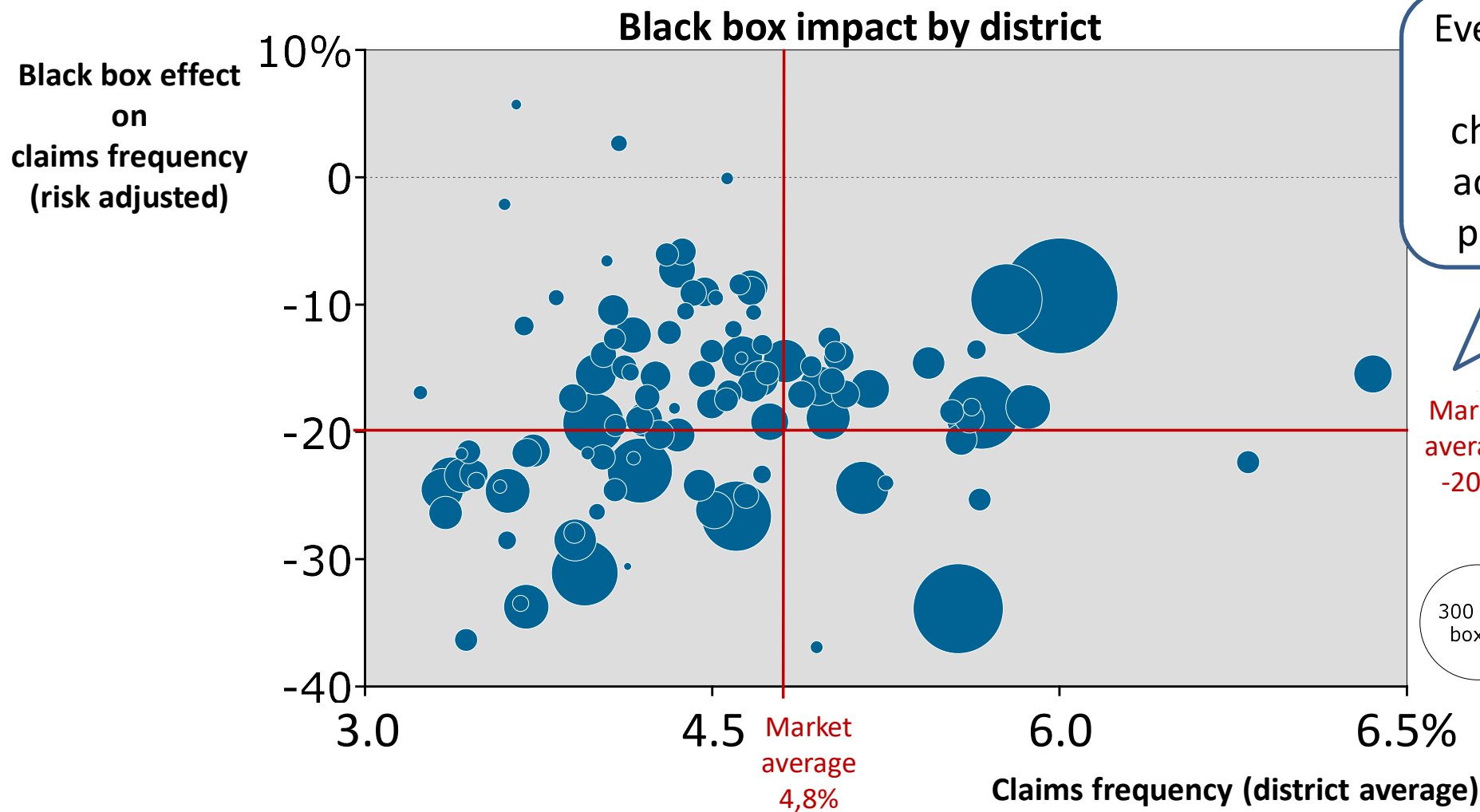


# Telematics value creation frameworks



# Self-selected risks due to product features

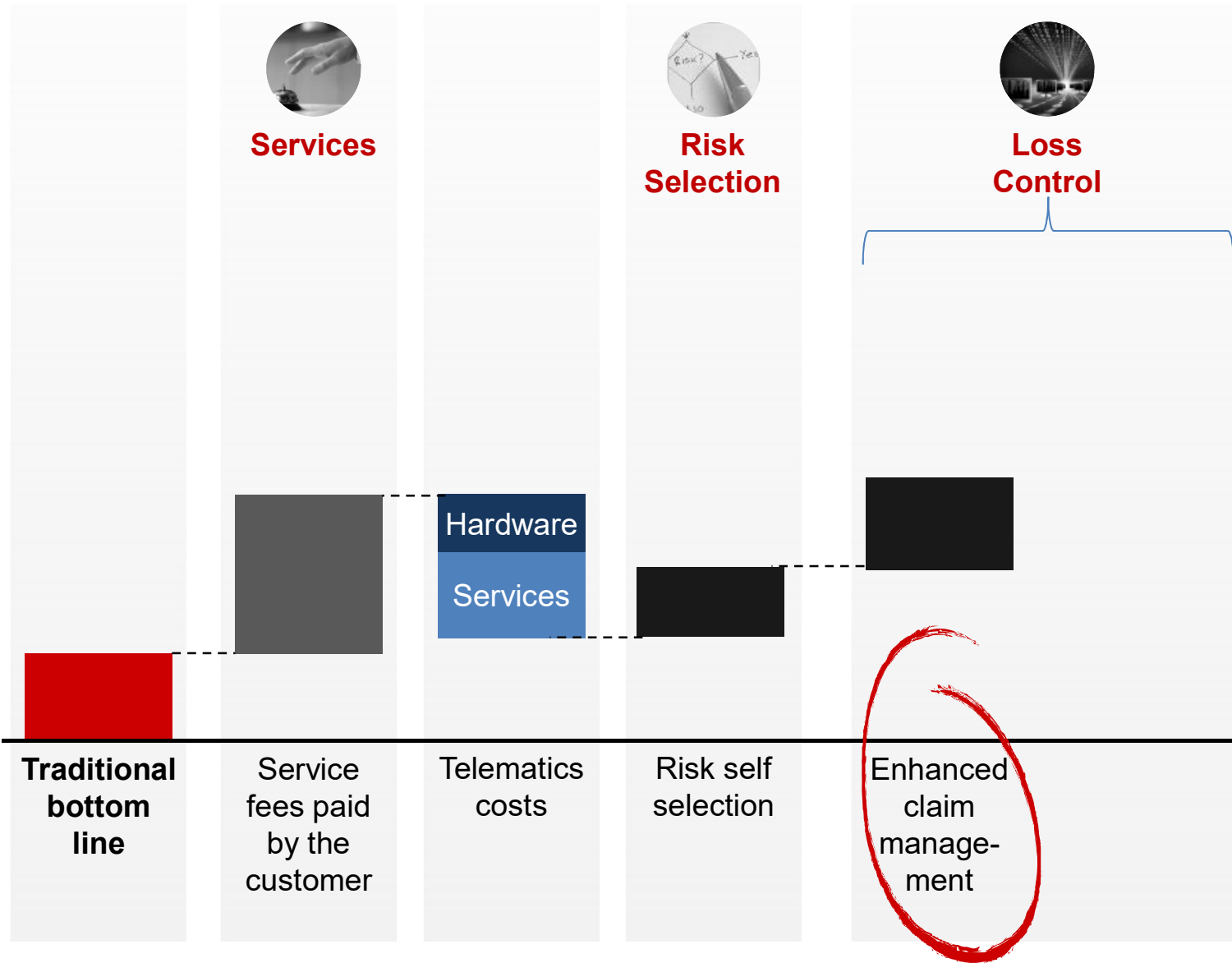
**REAL CASE**



Even if two customers seem to be equal based on their characteristics. The one who accepts the telematics value proposition is 20% less risky

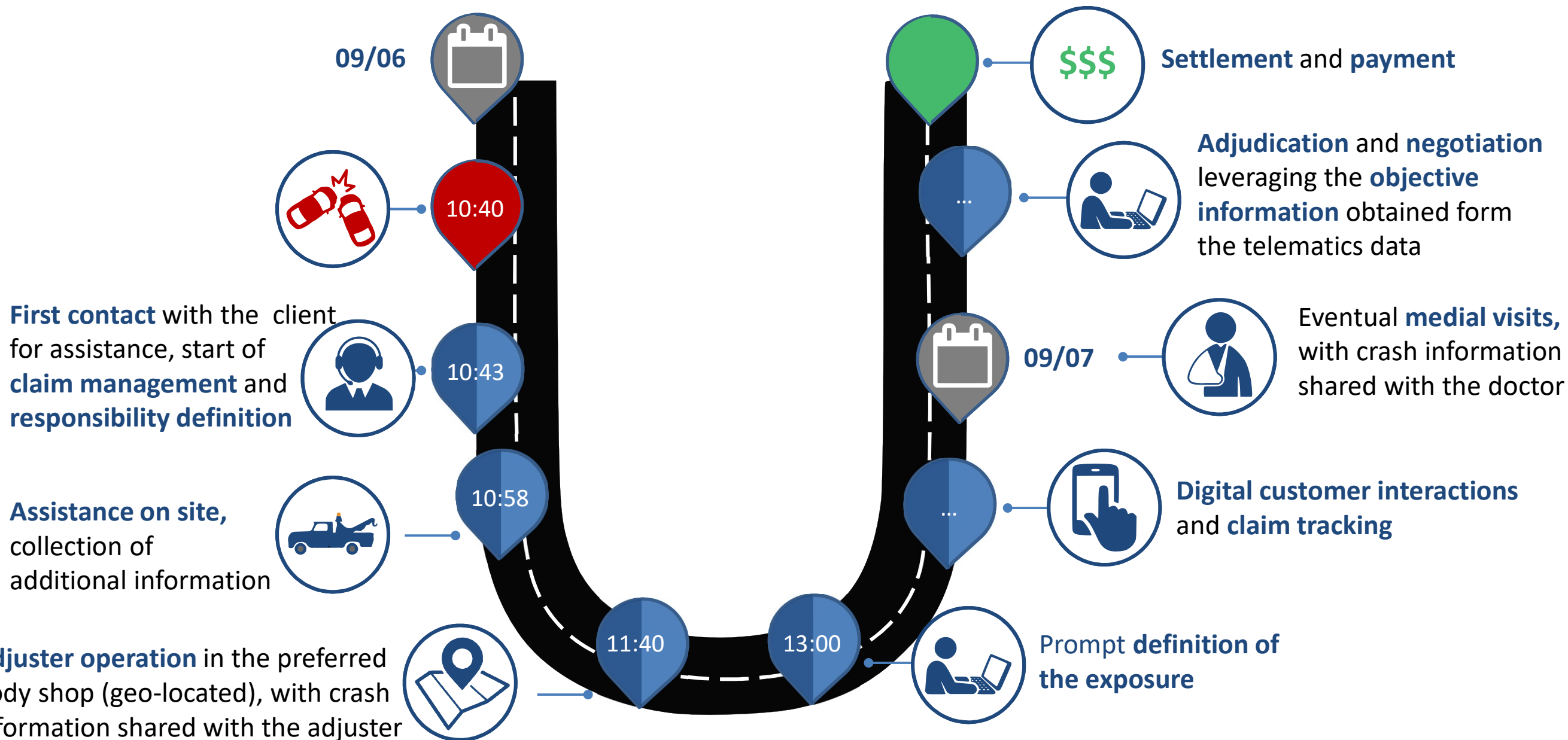
*An auto telematics value proposition focused on the claims monitoring has a terrific effect on the acquisition of low risk clients*

# Telematics value creation frameworks

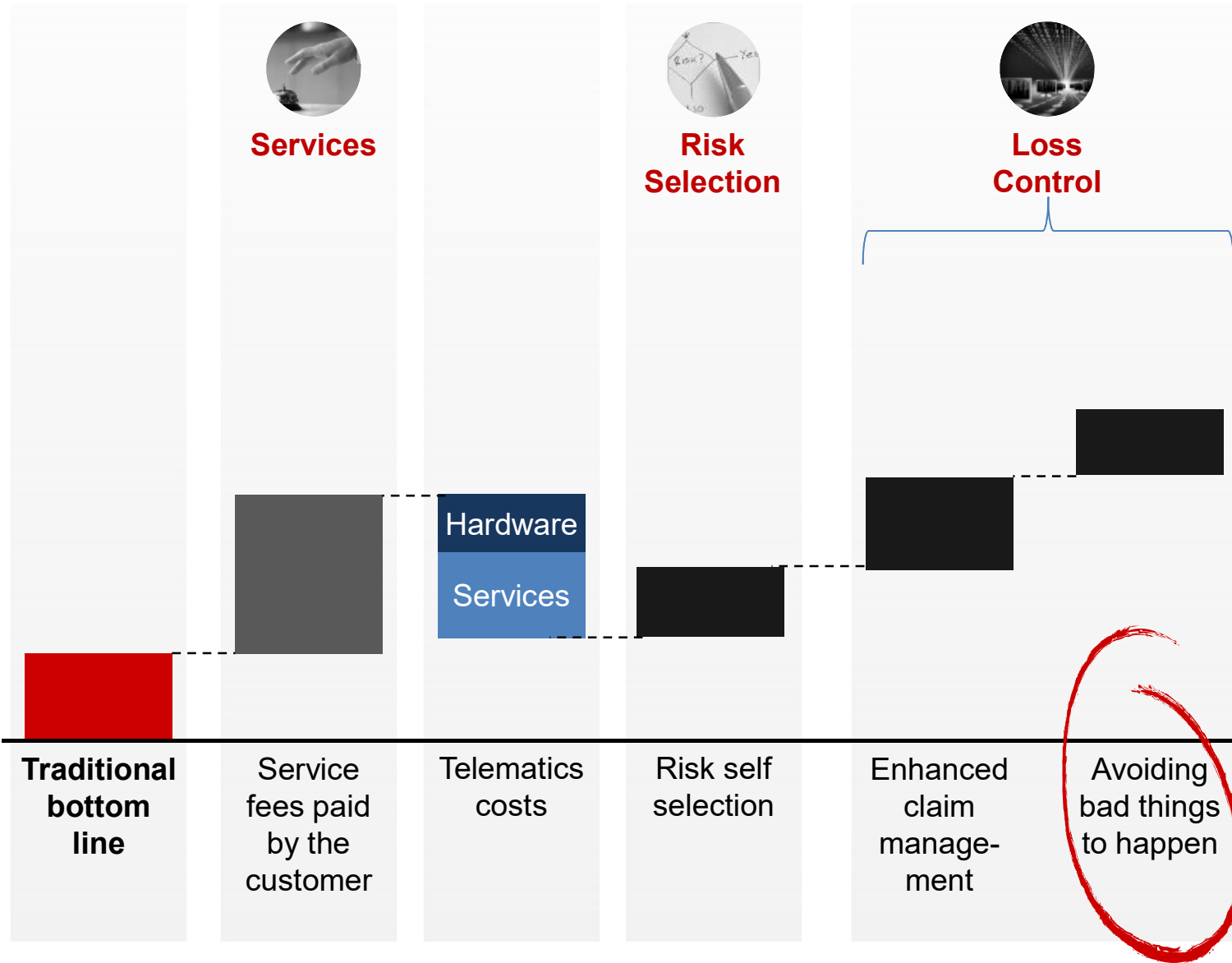


# Reinvented the claim process through the usage of telematics data

**REAL CASES**



# Telematics value creation frameworks



# Munich Re North America has set-up partnerships in order to deliver solutions able to fit with their suggested actions

## REAL CASE

### Loss Type

### Technology-Driven Risk Mitigation

For Transit Buses

- Rear-End
- Pedestrian strike
- Motorcycle & Bicyclist
- Lane departure collision



#### • Mobileye Shield +™

- Multiple mitigation functions via multiple cameras and customized vehicle displays focusing on Pedestrian collisions
  - Also alerts drivers of potential forward collisions, lane departures, motorcycle and bicycle collisions
  - Telematics data tracking capability
  - Avoids collisions while modifying driver behavior

For Other Vehicles

- Rear-End
- Pedestrian strike
- Motorcycle & Bicyclist
- Lane departure collision



#### • Mobileye Single Camera

- Multiple mitigation functions via mounted sensor and dash display
  - Alert drivers of potential forward collisions, lane departures, bicycle, pedestrian and motorcycle collisions
  - Telematics data tracking capability
  - Avoids collisions while modifying driver behavior

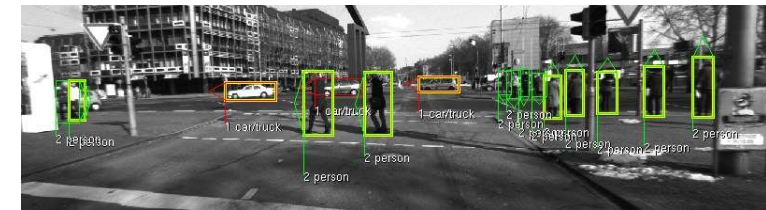
For all Drivers

- Driver error
- Turning collisions
- Intersection



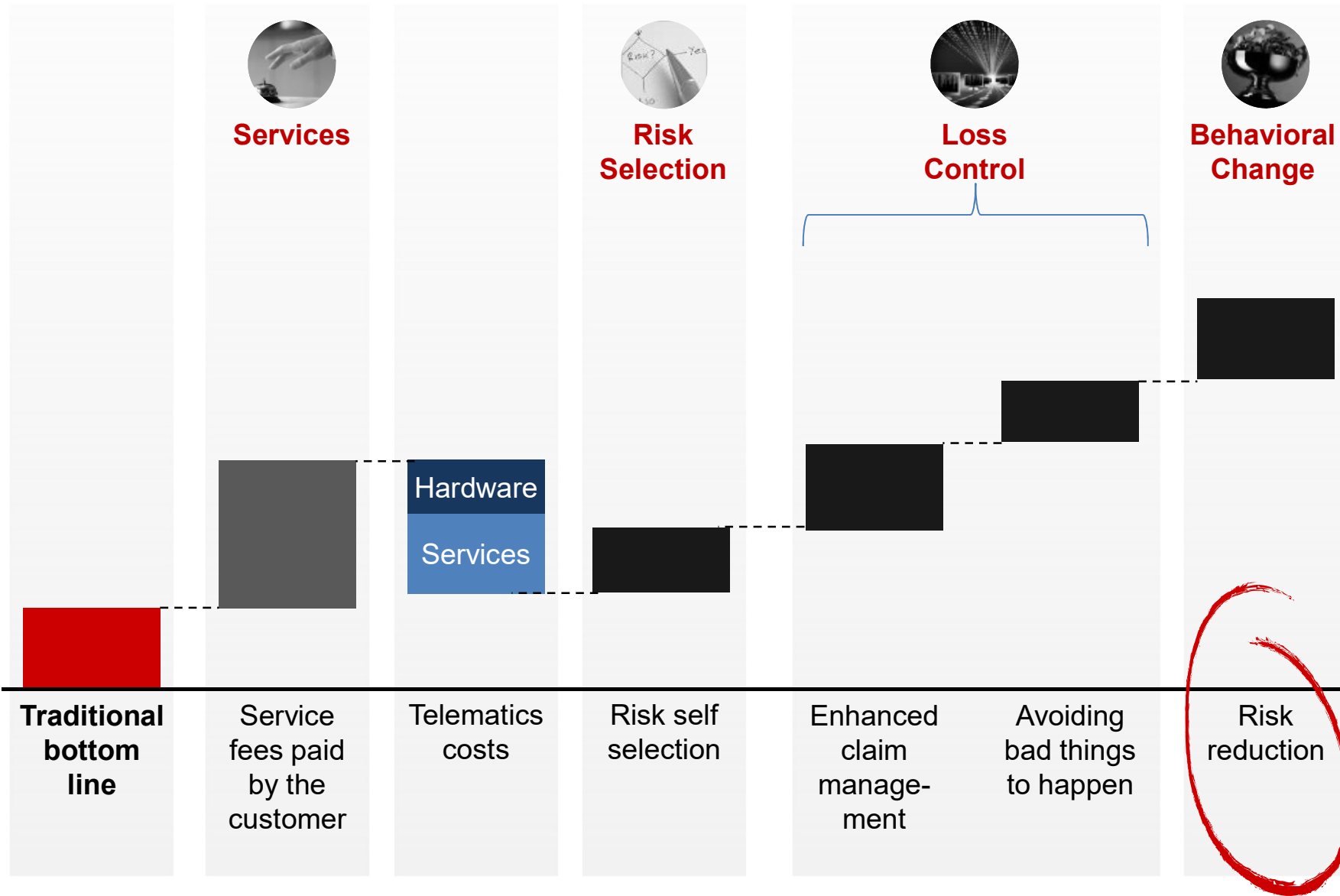
#### • Orion Fleet Intelligence to Train over Mobileye Capture Data

- Telematics based driver training
- Orion could be implemented in conjunction with Mobileye and or Mobileye Shield+



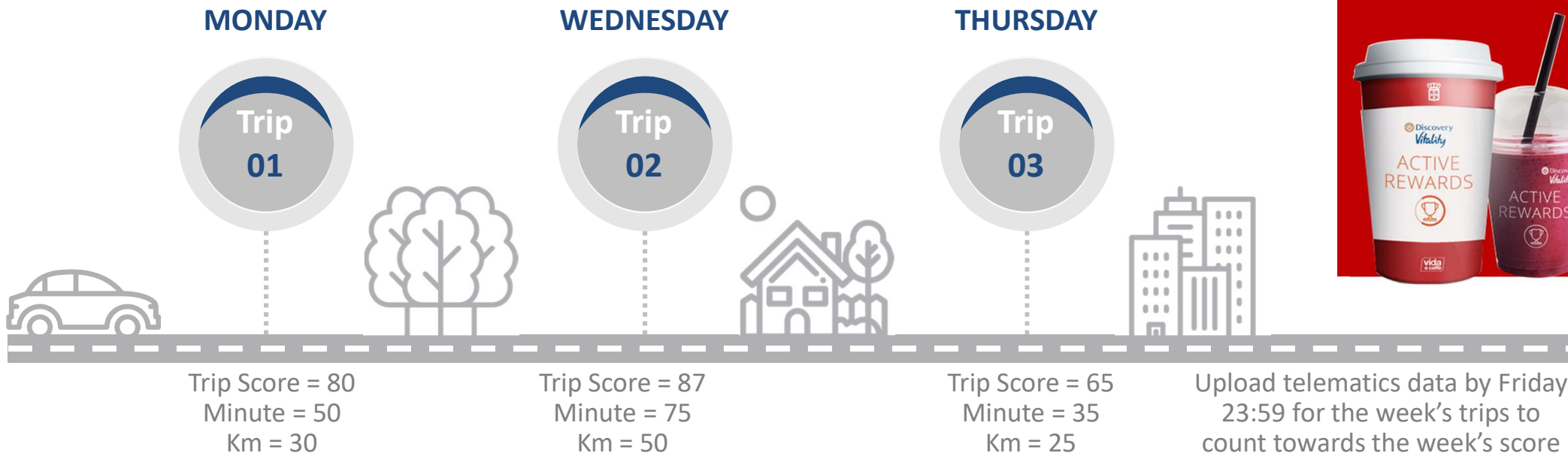


# Telematics value creation frameworks



# Discovery Insure have used telematics to influence the driver behavior by rewarding them with a cup of coffee or a smoothie

**REAL CASE**

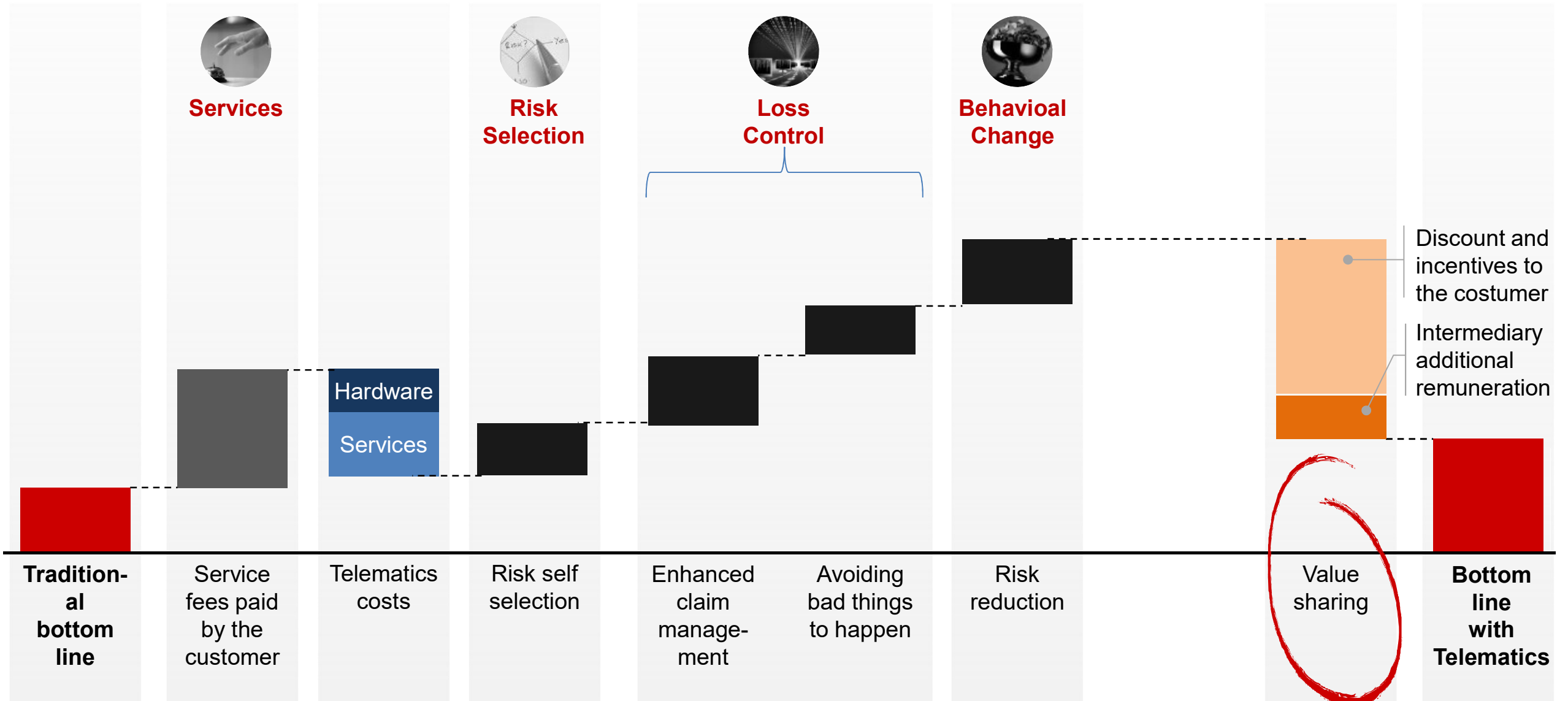


**INSTANT REWARD**

A free coffee, smoothie or parking voucher for every 100 consecutive kilometers of event-free driving (one reward a week)

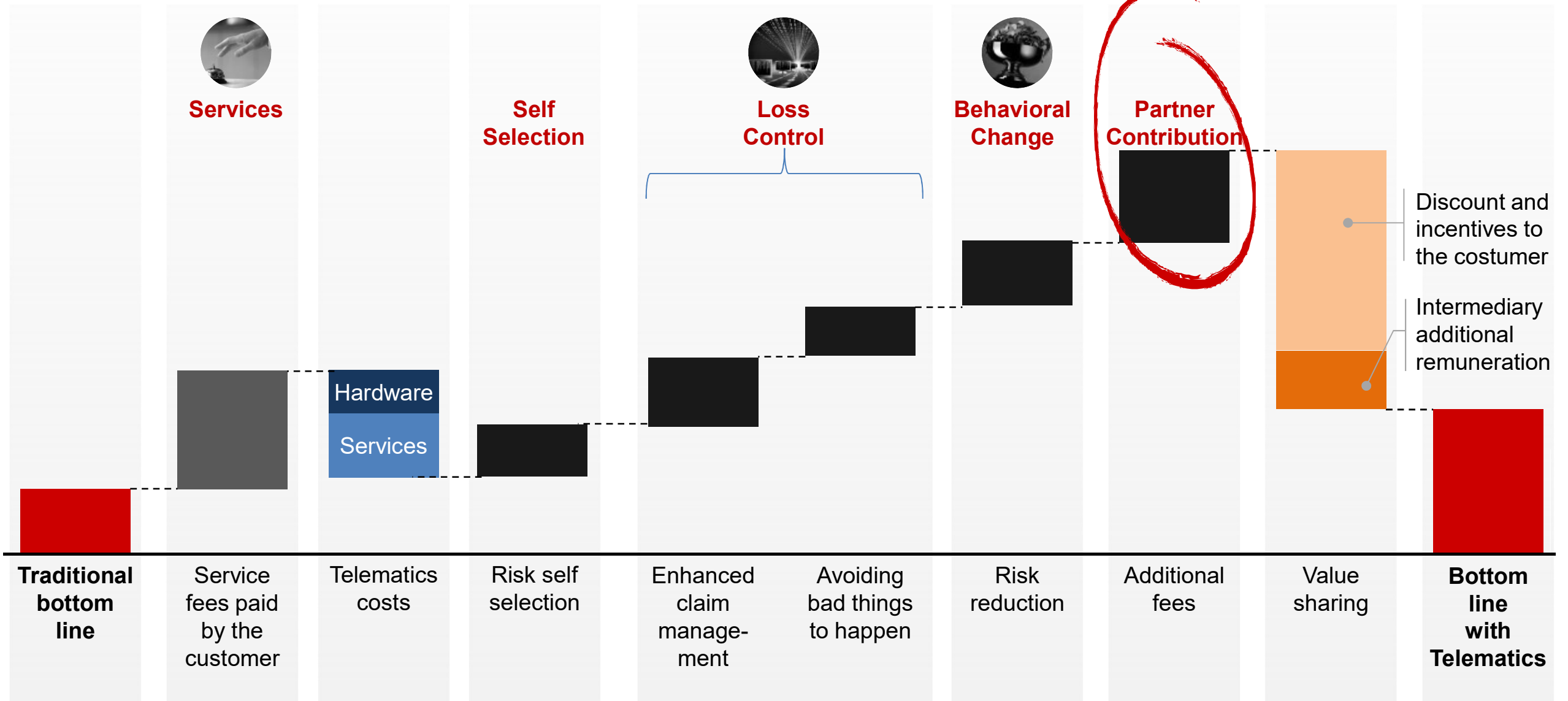


# Telematics value creation frameworks



**Incentives and discounts are ways of sharing with the customer part of the value created in order to deliver superior value propositions**

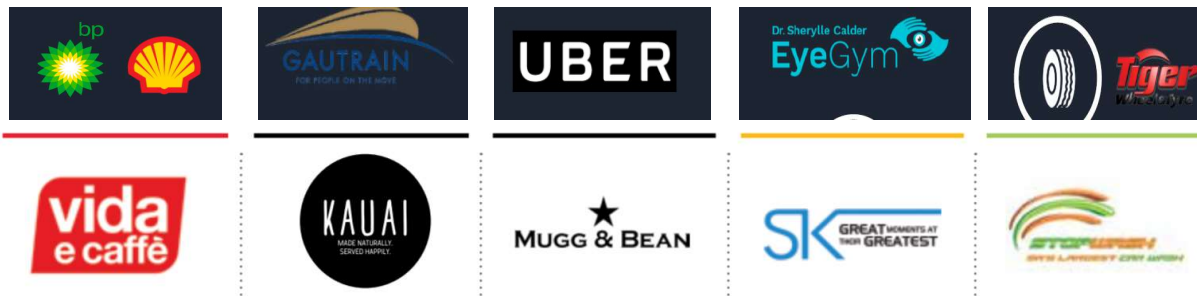
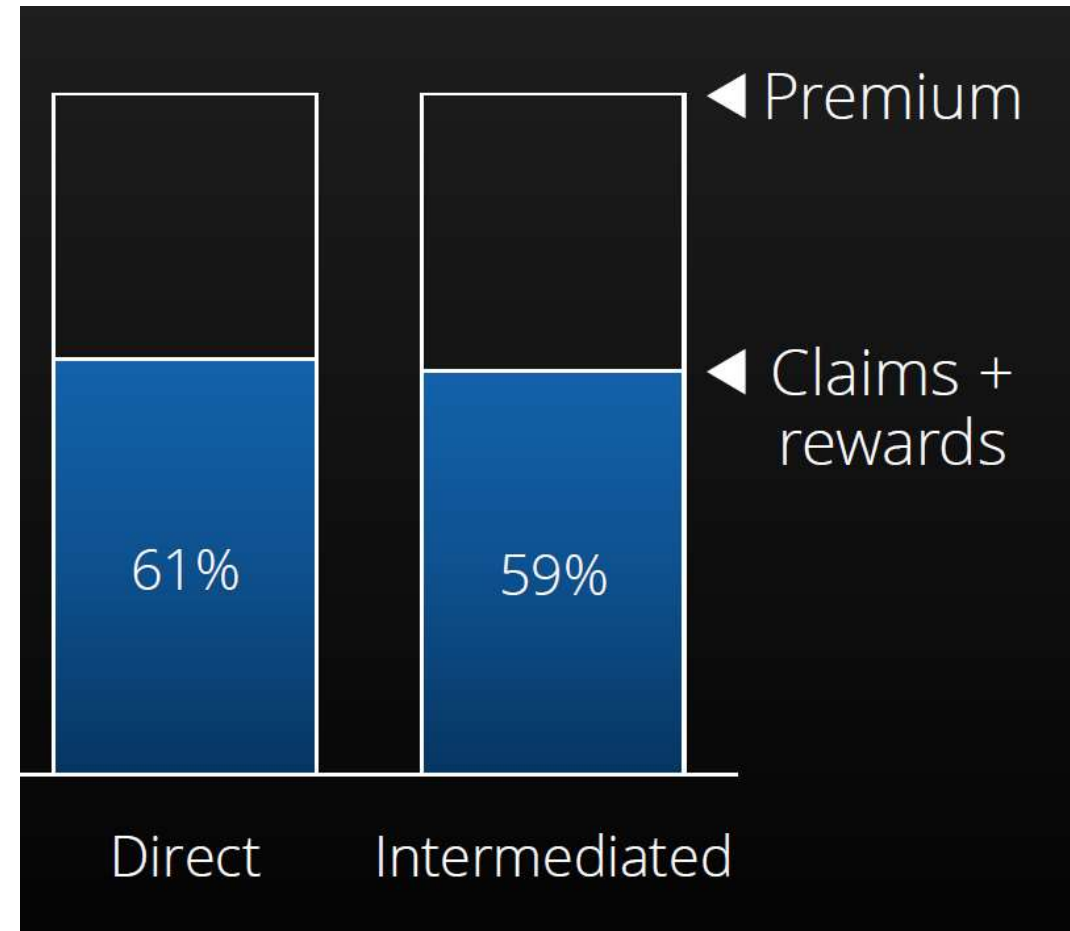
# Telematics value creation frameworks



**Incentives and discounts are ways of sharing with the customer part of the value created in order to deliver superior value propositions**

# Discovery scaled-up its auto business with a value proposition based on the promise to receive back up to 50% of monthly gas spending

## REAL CASE



# Working with more than 110 players in 15 different countries, I've learned a few lessons about pricing

The sustainability of business cases has not been generated by the telematics based tariff



About pricing, the current discount matter the most for the customer

1

Customers want to save money



»

2

Customers are interested to what they pay in the current period of coverage, less on the renewal



# Can telematics-based pricing create additional economic value?

Usage based

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*metromile*

## **Pay-per-mile**

1. A customer purchases the policy and becomes a policyholder
2. He plugs-in a dongle in the car
3. Each month he pays a different amount based on the miles driven plus a flat monthly rate

# Can telematics-based pricing create additional economic value?


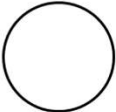

## Usage based

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- Persistent monitoring during the coverage period of "quantity" and "level" of risk exposition
- Each customer is priced for the most adequate premium **minimizing the premium leakage** in each coverage period
- Challenges: uncertainty at the purchase moment of the total amount to be paid



# Can telematics-based pricing create additional economic value?

	Usage-based
<i>Economic benefits</i>	
Premium leakage reduction	
Up-front positive selection	
Retention of profitable customers	

# UBI is good. UBI is great...

## P&C Insurance Initiation – Credit Suisse Ago '18

### Industry Key Theme #2: Auto Insurers—The Case for Added Leverage Is Becoming Increasingly Tough for Agencies to Deflect



#### Brief Backdrop:

Decades ago, rating agencies promulgated leverage rules for insurers to adhere to in order to maintain desired credit ratings. For auto insurers, one of the key rules is that they should not exceed \$3 dollars of auto premiums for every \$1 dollar of equity.

We feel strongly that telematics-based underwriting will cause auto loss ratio volatility to measurable decrease once again.

Ultimately, the one-size-fits-all approach that the current 3-to-1 ratio requires insurers to adhere to might still make sense for small auto insurers that don't have scale or expertise to earn respectable returns; however, to us, it doesn't make sense for everyone.

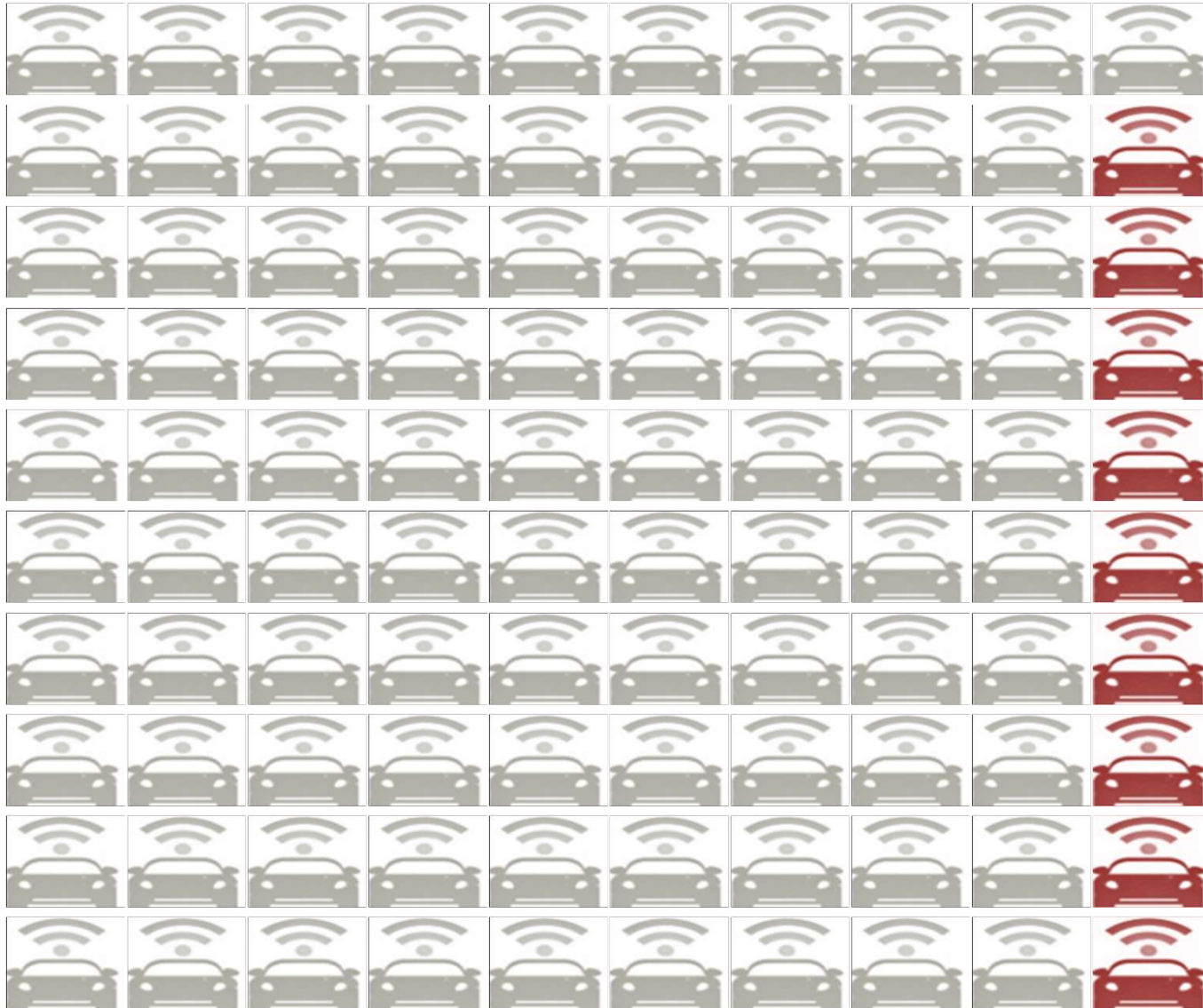
## Additional consideration on the stock price

- At the same rate of return, the company with less volatility deserve higher multiple due to the better risk-adjusted return
- A theoretical company with only auto business and 100% penetration of the usage based approach would minimize the volatility of its results
- Its multiples have to be higher than companies with the same rate of return but higher volatility

**Increased leverage can create 5-10% RoE lift**

**Higher multiples**

# ...but UBI doesn't seem to work



- Usage based pricing have been tried for a while
- However, only 9% of the 14 million telematics policies has a usage-based pricing approach with the CURRENT price defined by the CURRENT behavior (or mileage)
- Customers want to know the cost of the coverage they are purchasing

# Can telematics-based pricing create additional economic value?

## Usage based

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### Pay-per-mile

1. A customer purchases the policy and becomes a policyholder
2. He plugs-in a dongle in the car
3. Each month he pays a different amount based on the miles driven plus a flat monthly rate

## Discount at renewal

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### Discount at renewal

1. A customer purchases the policy with a small up-front discount and becomes a policyholder
2. He plugs-in a dongle in the car or downloads an app
3. He drives and a driving score is calculated in a few months of driving
4. He receives a renewal quotation with discount based both on his data - the traditional ones - and his driving score

# Can telematics-based pricing create additional economic value?

## Usage based

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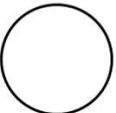

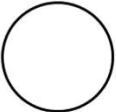
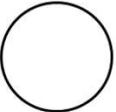
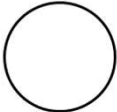



- Persistent monitoring during the coverage period of "quantity" and "level" of risk exposition
- Each customer is priced for the most adequate premium **minimizing the premium leakage** in each coverage period
- Challenges: uncertainty at the purchase moment of the total amount to be paid

## Tailored renewal price

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- Discount on renewal based on the collected data in order to **increase the retention** of the best risk at any pricing level
- The possibility to create value is linked to the level of churn-rate
- If surcharges are also added, opportunity to partially reduce the premium leakage identified on some risks, or push the worst risks – for any pricing level - to competitors

# Can telematics-based pricing create additional economic value?

<i>Economic benefits</i>	Usage-based	Tailored renewal price	
		Only discounts	Discounts & surcharges
Premium leakage reduction			
Up-front positive selection			
Retention of profitable customers			

# Telematics-based pricing approaches - Taxonomy

## Usage based

## Driving score

## Discount at renewal



### Pay-per-mile

1. A customer purchases the policy and becomes a policyholder
2. He plugs-in a dongle in the car
3. Each month he pays a different amount based on the miles driven plus a flat monthly rate



### Try-before-you-buy

1. A customer (not yet a policyholder) downloads the app and fills-in his data
2. He drives and a driving score is calculated in 2-3 weeks of driving
3. He receives a quotation based both on his data - the traditional ones - and his driving score
4. If he likes the proposed price for all the period of coverage, he will purchase the policy and become a policyholder



### Discount at renewal

1. A customer purchases the policy with a small up-front discount and becomes a policyholder
2. He plugs-in a dongle in the car or downloads an app
3. He drives and a driving score is calculated in a few months of driving
4. He receives a renewal quotation with discount based both on his data - the traditional ones - and his driving score

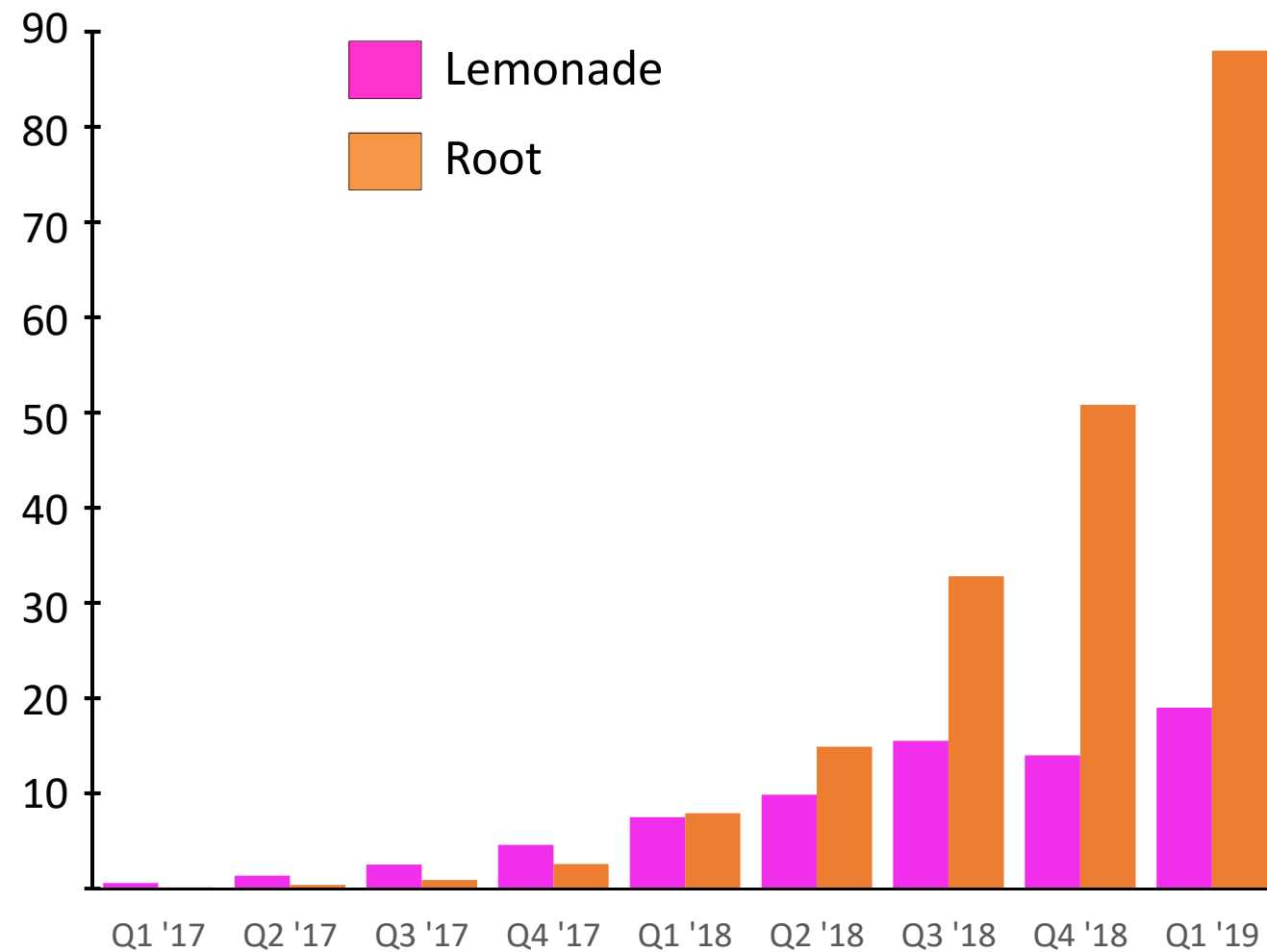
A full stack insurtech which is based on this approach has already achieved the unicorn status

# ROOT

- Auto telematics insurance carrier (founded in 2015)
- \$177.5M of funding, last round at **\$1B** evaluation



Quarterly gross written premiums (\$M)



Source: Yellow Books



# Can telematics-based pricing create additional economic value?

## Usage based

---

- Persistent monitoring during the coverage period of "quantity" and "level" of risk exposition
- Each customer is priced for the most adequate premium **minimizing the premium leakage** in each coverage period
- Challenges: uncertainty at the purchase moment of the total amount to be paid

## Driving score

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- Availability of the telematics data at the underwriting stage (e.g. Insurer's access to third-party data) in order to provide a quotation
- The more accurate pricing allow:
  - **positive selection** attracting the best risks for each pricing level
  - **partial premium leakage reduction**
- Challenges:
  - availability and reliability of third parties data
  - customer onboarding

## Tailored renewal price

---

- Discount on renewal based on the collected data in order to **increase the retention** of the best risk at any pricing level
- The possibility to create value is linked to the level of churn-rate
- If surcharges are also added, opportunity to partially reduce the premium leakage identified on some risks, or push the worst risks – for any pricing level - to competitors

Data exchanges can be an alternative to the TBYP apps

# Telematics-based pricing approaches – Economic benefits

<i>Economic benefits</i>	Usage-based	Driving score at the UW stage		Tailored renewal price	
		Only one-time	Each year	Only discounts	Discounts & surcharges
		Premium leakage reduction			
Up-front positive selection					
Retention of profitable customers					

# I'm spreading this pragmatic view through the Observatory

## The scope

Any insurance solution based on **sensors for collecting data** about the state of an insured risk and **telematics for remote transmission** and management of the collected data



Auto and motorbike



Home & commercial property



Health and life



Industrial risks and workers' comp



Extended warranty

Some of the additional focus for the 2019 edition



Ecosystems



Intermediary engagement



Small commercial

I'm extremely proud to serve these Prestigious Organizations with the North American and European IoT Insurance Observatories



To join the Observatory feel free to write to [matteo.carbone@iotinsobs.com](mailto:matteo.carbone@iotinsobs.com)

