



# The future of auto insurance

**Matteo Carbone**

Founder and Director, IoT Insurance Observatory

@mcins\_

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# Cars and drivers will be connected

Today **more than 1** connected device per person in the world

In 2025 **more than 10** connected devices per person in the world

In 2050 ...

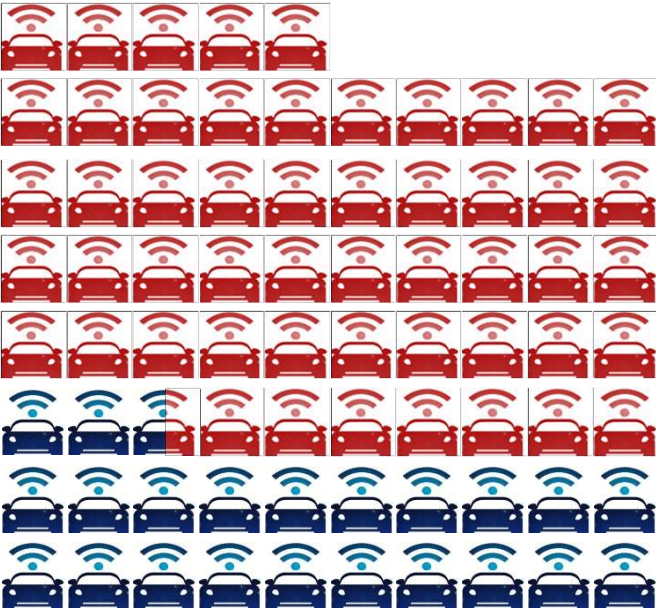
***Even cars will be more connected***

*...maybe not 100% of the cars in circulation will have already been connected in the next 7 years*

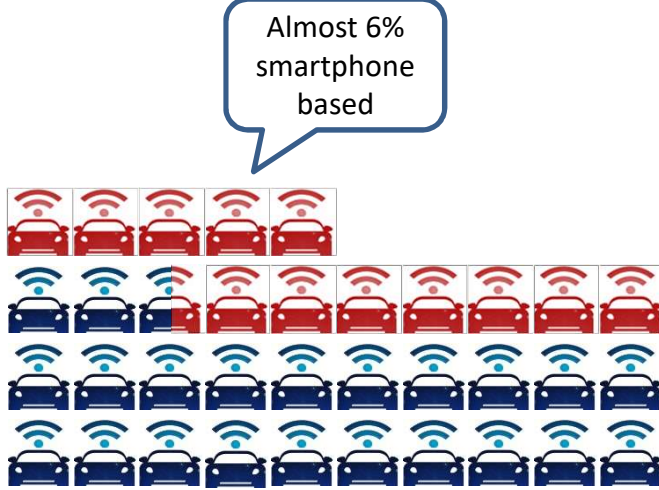
**Cars will be connected, you can not stop that**

# UBI offers have been out there for years

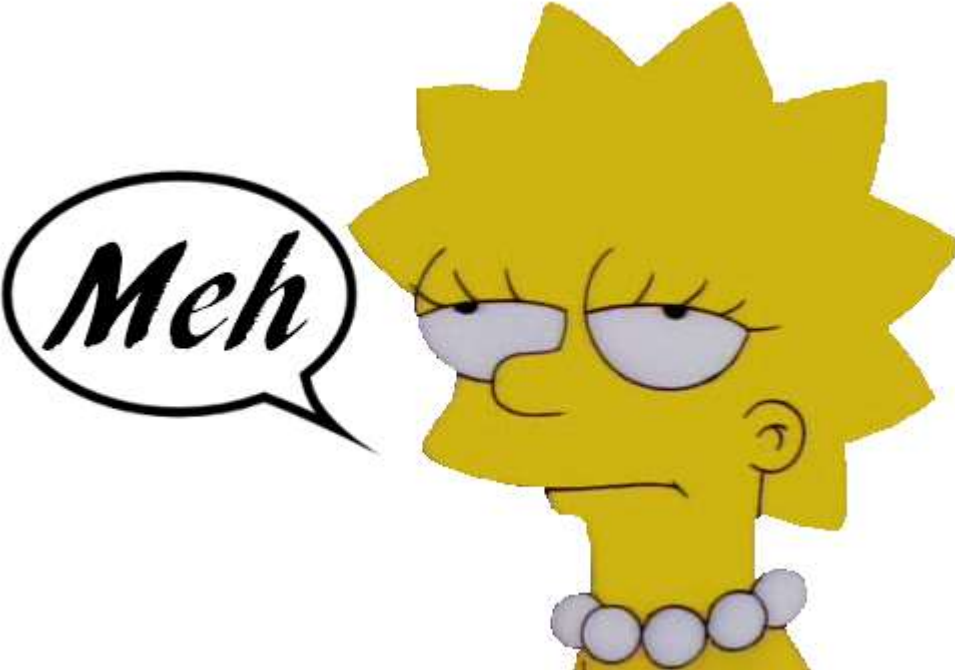
*“Let me take a look at your driving behaviors for a few months: I’m giving you a small discount today however you might save a lot of money at the renewal”*



**7.5 M telematics policies at the end of '16**



**3.5 M cars connected with an Insurer on '16 (penetration 1.4%)**



**This way of dealing with connected cars has failed**

-  Roll-over
-  Leave-in

# What are analysts telling you daily?



## Driverless world

- 75% of the cars on the road will be autonomous by 2035
- 70% of the cars on the road will be driverless by 2040



## Fading premiums

- ADAS will reduce 45% of accidents by 2020
- Total claims costs will fall by 50% in 15 years
- 80% of the traditional auto insurance business will disappear by 2040

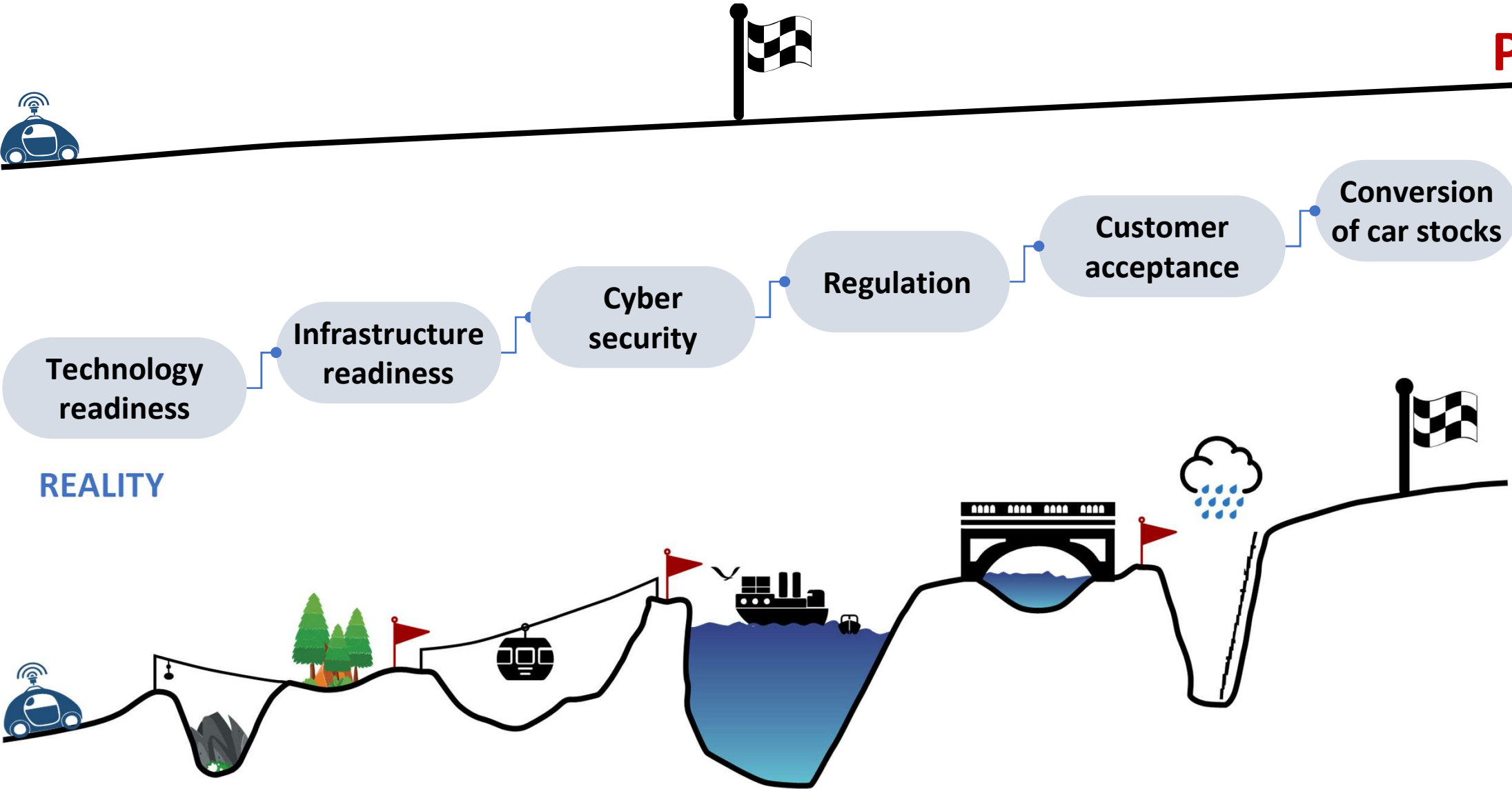


## OEMs triumph

- OEMs have competitive advantages adequate to disrupt the auto insurance profit equation
- The (luckiest) Insurers will buy data from OEMs, instead a large part of you will lose volumes due to the “OEM insurers”

# Demystifying the driverless scenario

The analysts' expectations of level 5 autonomous cars



**Personal auto insurance will be compulsory for car owners for a long time, as long as cars have a wheel**

# Demystifying fading premiums

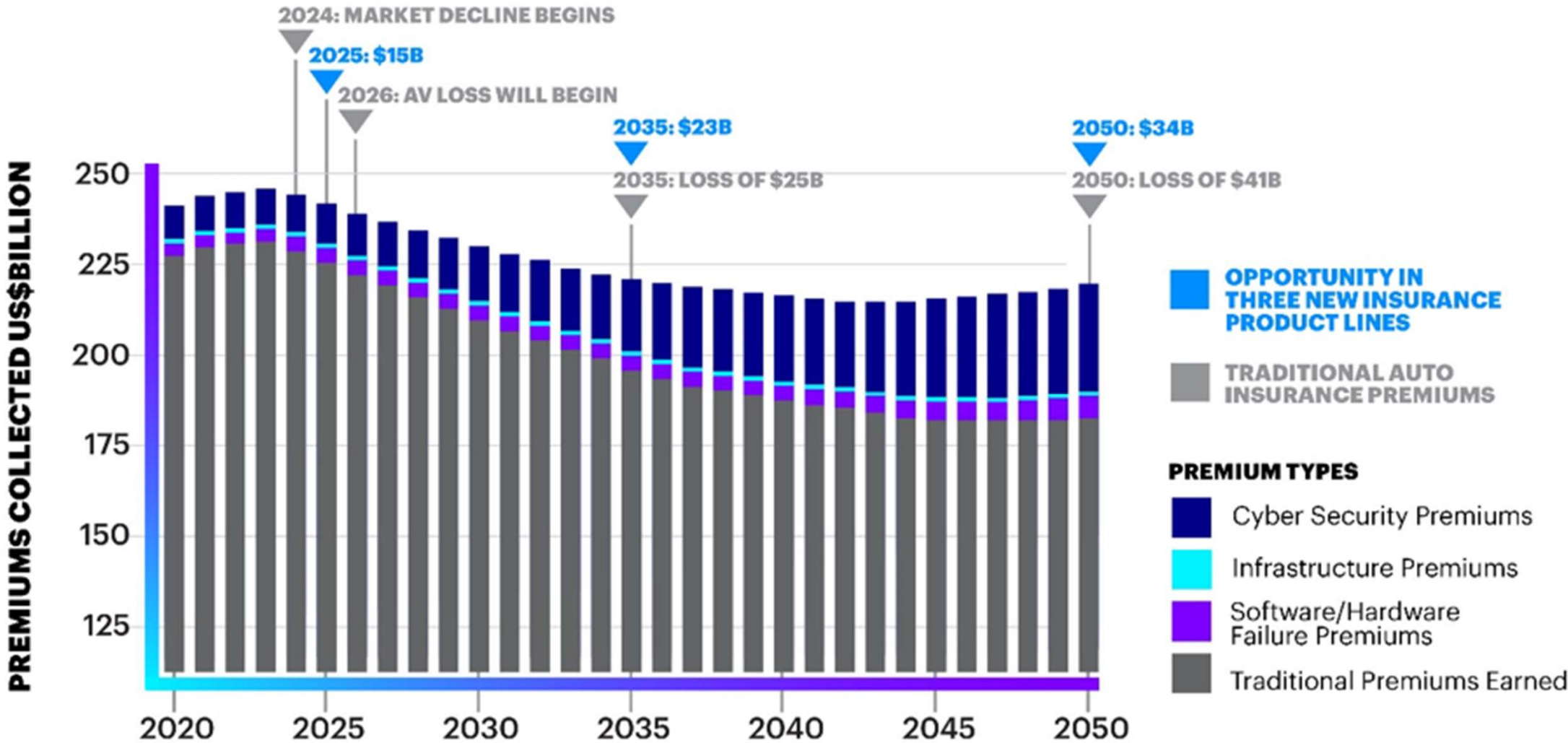
## Claim cost reduction

- **Claim cost reduction** will be influenced by many other elements not only by ADAS:
  - Safer cars may not make safer drivers because they can adjust habits (higher distraction)
  - Safer car don't guarantee less accident because Increase miles driven may offset lower risk per mile
  - Higher severity can partially offset the frequency reduction

## Claim cost reduction

**Premium shrinking**  
due to claims cost  
reduction is not  
immediate and will  
follow more  
complex  
competitive  
dynamics

# Demystifying fading premiums



**The end (if any) of auto insurance is far but you will have to deal with more pressure on your cost structure**



# Demystifying the triumph of OEMs

## Do carmakers seem so strong?

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### **Their core business**

- Established car makers are living the Tesla shock

### **Their customer engagement**

- Customers use the apps on their mobile phones instead of the carmaker's platform embedded in their cars
- Those platforms cost them more than the benefits and revenues they are generating

### **The future of mobility**

- All forms of new mobility (car sharing, ride sharing, ...) are first of all threats to the relevancy of OEMs
- They will have to fight to stay relevant

## Have carmakers relevant competitive advantages in the insurance field?

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### **Distribution**

- The commitment of their dealers will not cost less than that of your agents and brokers
- Customer preference for one stop shopping is a big question mark. No relevant success story in the past attempts to sell auto insurance liability by OEMs dealers (excluding Sweden)

### **UW and claims**

- No existing knowledge on pricing risk and claims management (insurance claims are not only car damages but also body injuries)

### **Culture**

- Underwriting discipline and fraud management seem really far from the OEM culture
- Insurance business is local contrary to international carmakers products

**To succeed in the insurance field is not a low hanging fruit for any carmaker but some of them will try**

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# Demystifying the carmaker's threat to the insurance sector



**Personal auto insurance will be compulsory for car owners for a long time, as long as cars have a wheel**



**The end (if any) of auto insurance is far but you will have to deal with more pressure on your cost structure**



**To succeed in the insurance field is not a low hanging fruit for any carmaker but some of them will try**

# I'm bringing you these positive messages

## Matteo Carbone

Founder and Director of the IoT Insurance Observatory

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

Keynote speaker and writer on  
insurance innovation

InsurTech Investor

Global InsurTech Influencer



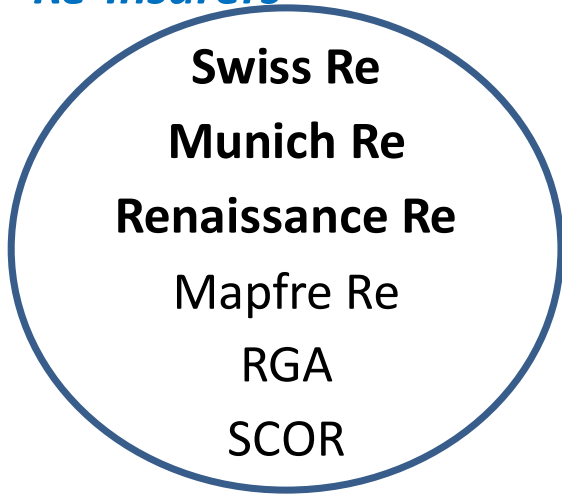
- This **Insurance think tank** has aggregated more than 50 international insurance groups, institutions and tech firms between Europe and North America
- The initiative has three concrete outcomes:
  - The most pragmatic **multiclient research** specialized in the **insurance IoT** domain
  - **One-to-one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

**Because I'm helping incumbents to deal with these innovation needs**

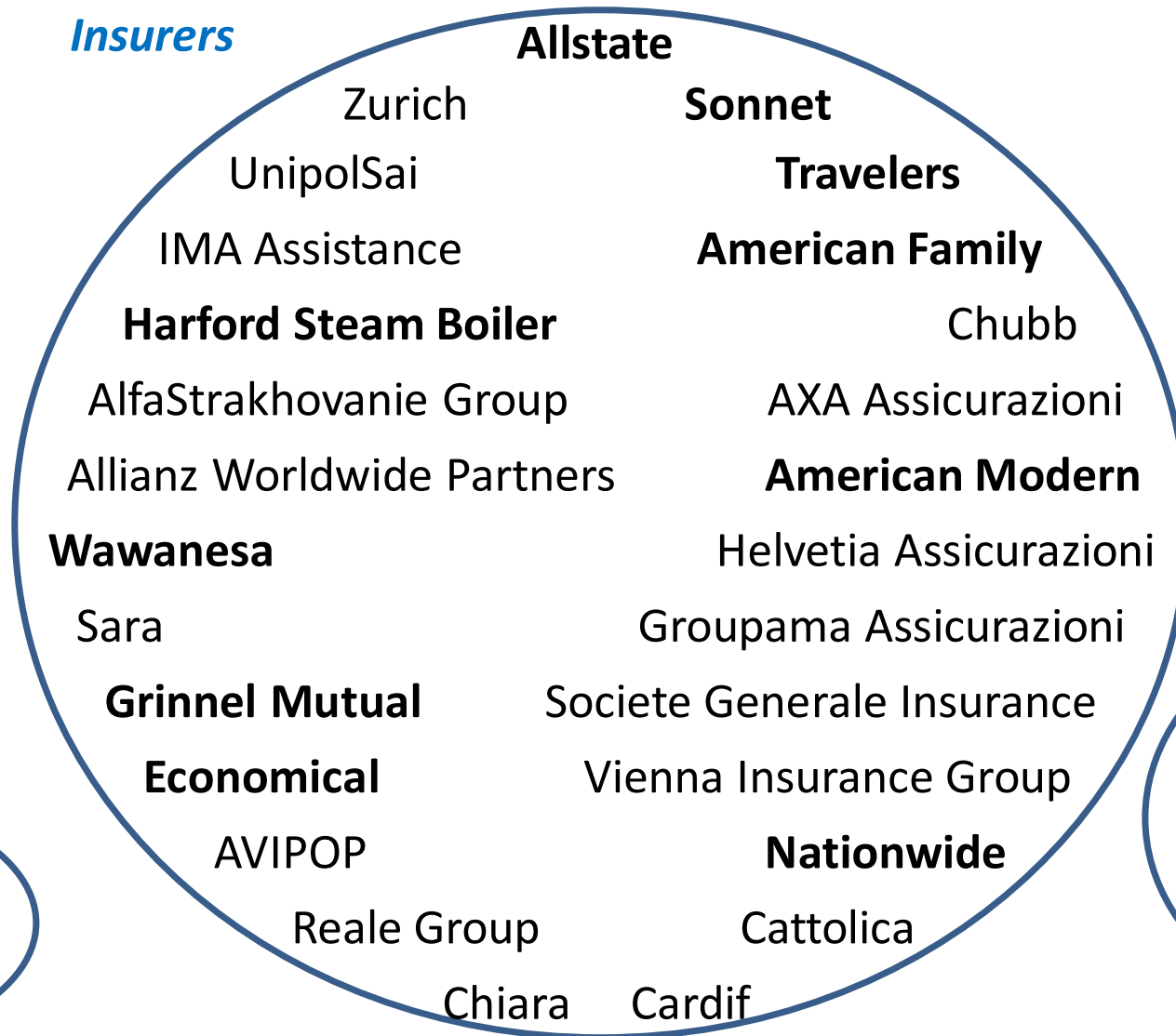
# The 50 members of the Observatory in Europe and North America

AS OF DECEMBER 2017

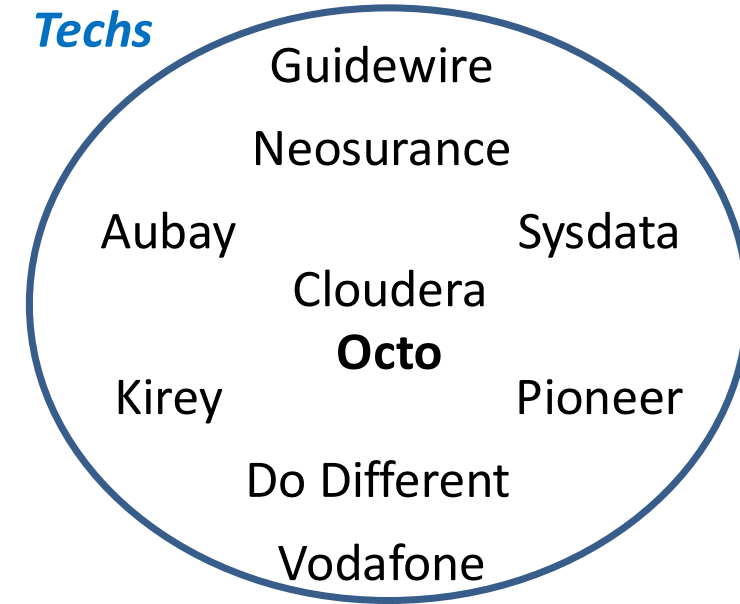
## Re-Insurers



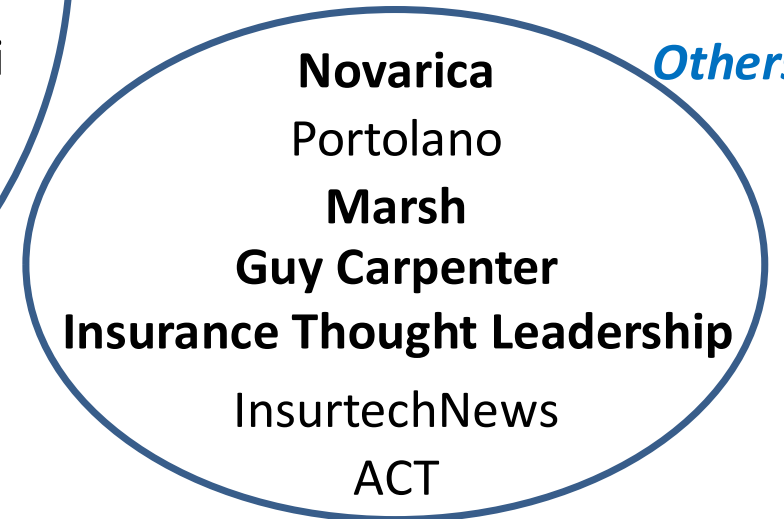
## Insurers



## Techs



## Others



## Istitutions



# On the 2017, I did more than 350 hours of discussions with their executives around the globe

## Think Tanks

One focused on the North American markets and one dedicated to the European markets

2

50

## Organizations

Involved hundreds of executives from almost 35 Insurance and Reinsurance Groups and 15 Tech players and Institutions

## Plenary meetings

6 full days of keynote speeches, discussions, roundtable.  
A terrific networking opportunity

6



>350

## Hours of workshop

More than 120 "one to one" workshops (meetings dedicated to each company which has joined the Observatory)

4

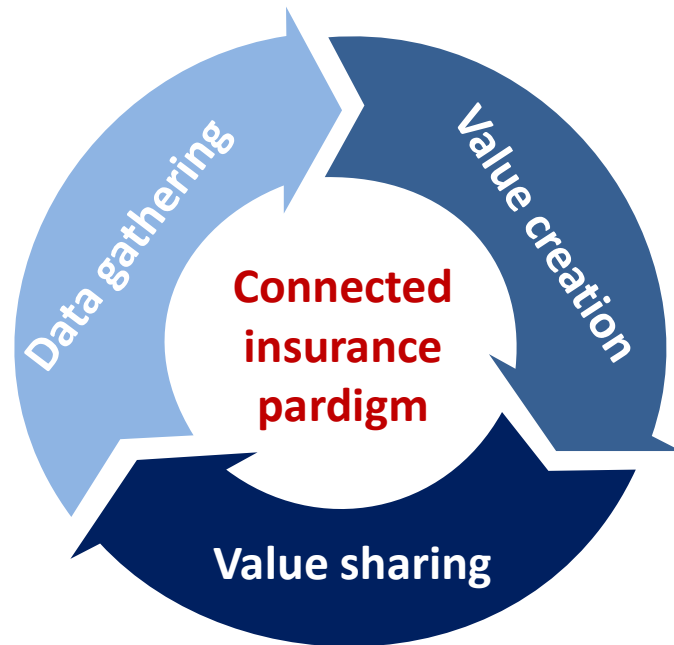
## Business insurance areas addressed

Unique research based on innovation thought leadership and insurance acumen on all insurance business lines

# I believe (some) insurers will succeed in the connected car war and they will stay relevant in the life of their clients

## What

They will **orchestrate their own connected insurance platform** using data to **create value** and will **share this value** with the customer to deliver superior value propositions



## How

They will maximize the value creation using the same data to activate **many different use cases on the entire insurance value chain**



**Each of you can be one of these successful insurers!**

I believe (some) insurers will succeed in the connected car war and they will stay relevant in the life of their clients



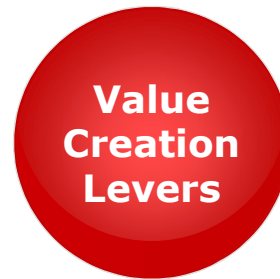
**Seriously, you can win that war!**

**Some your competitors have already started this journey...**

# Telematic data can have an extraordinary impact on the way you assess, manage and transfer risks

## ➤ SERVICES...

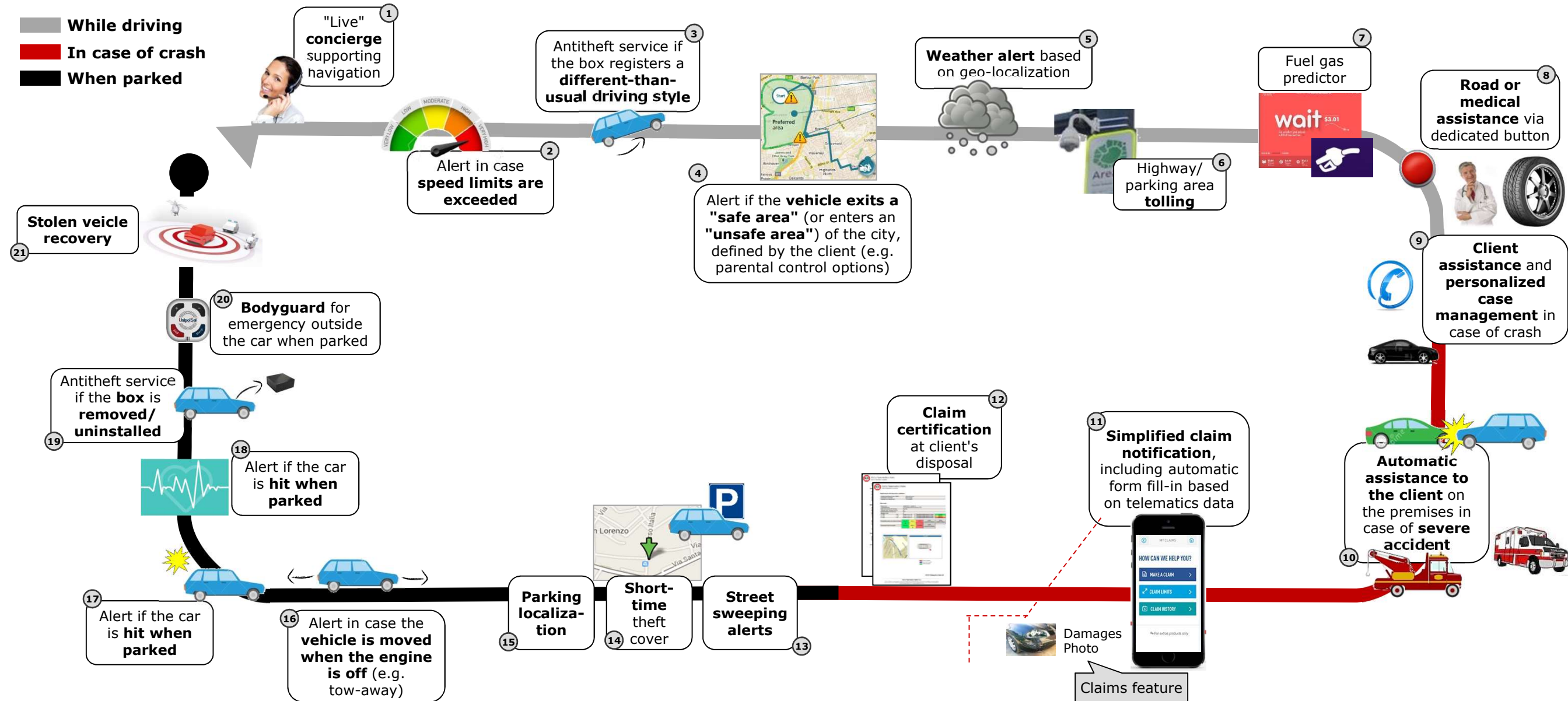
- ...based on sensor data to deliver **enlarged value propositions** for the clients orchestrating an ecosystem of partners
- ...concerning **information** about insurance coverage and insured perils





# Some insurers have already reinvented the driver's customer journey leveraging on the telematics data

**NOT EXHAUSTIVE**

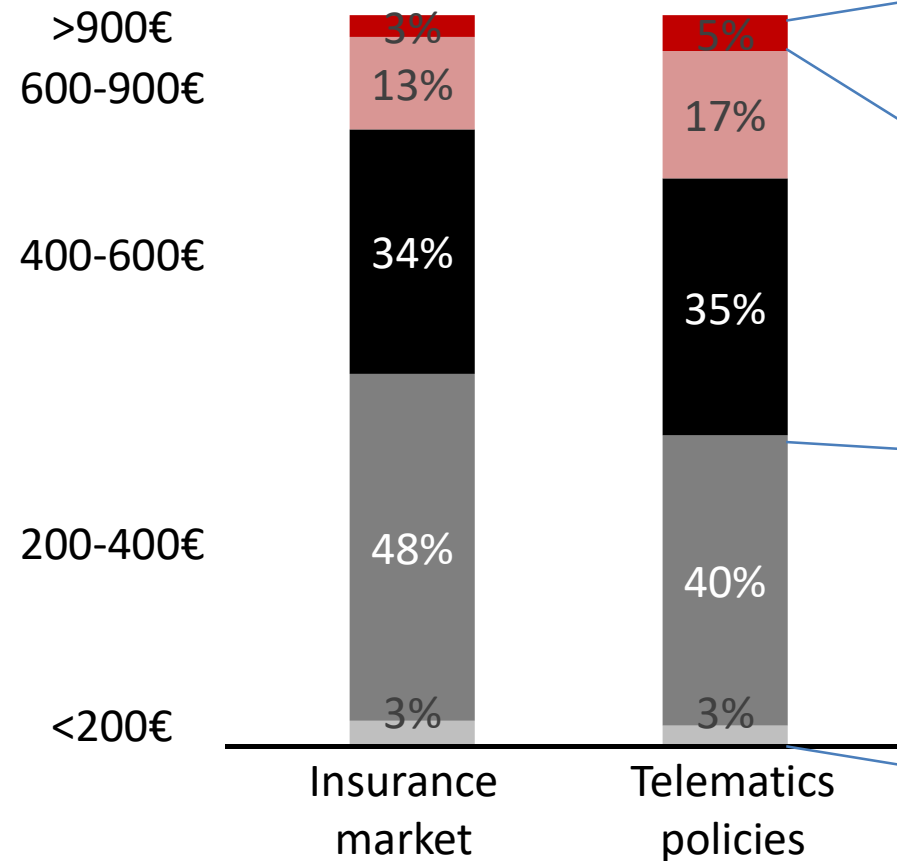


# Many insurers have been able to sell telematic policies without a material discount for the customer

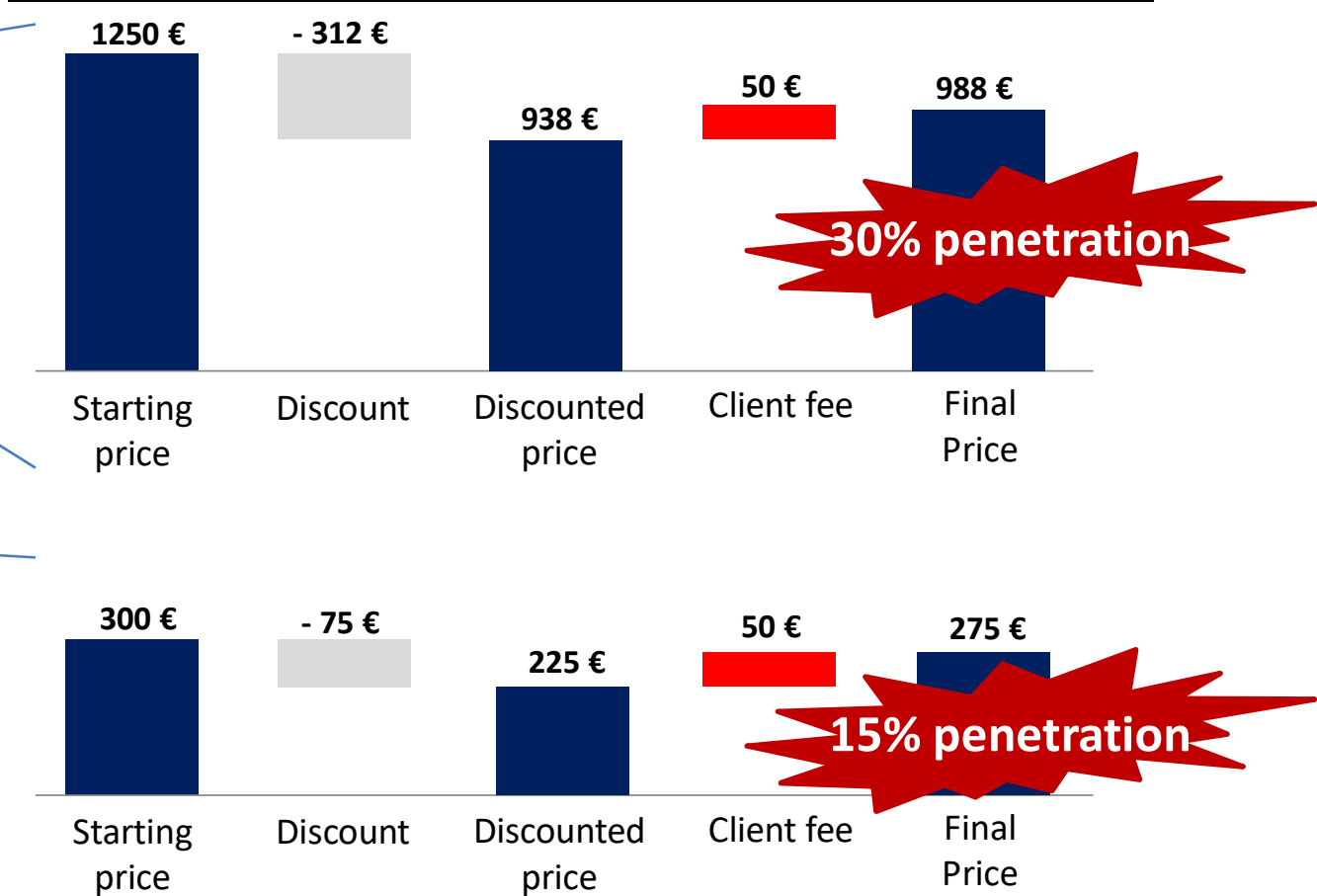
**REAL CASE**



Auto liability insurance premium paid



Business case at the point of sale



**>40% of the 7 million Italians with a telematic insurance policy have chosen it for the services**

# The value creation framework



# Telematic data can have an extraordinary impact on the way you assess, manage and transfer risks

## SERVICES...

- ...based on sensor data to deliver **enlarged value propositions** for the clients orchestrating an ecosystem of partners
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# Many insurers have been able to select risks with a telematic value proposition without any usage based tariff



### Telematics device

Hardware to be installed on top of the car battery year round (self-installing)



### Insurance coverage

Auto liability insurance coverage with a 20% **up-front flat** discount\*

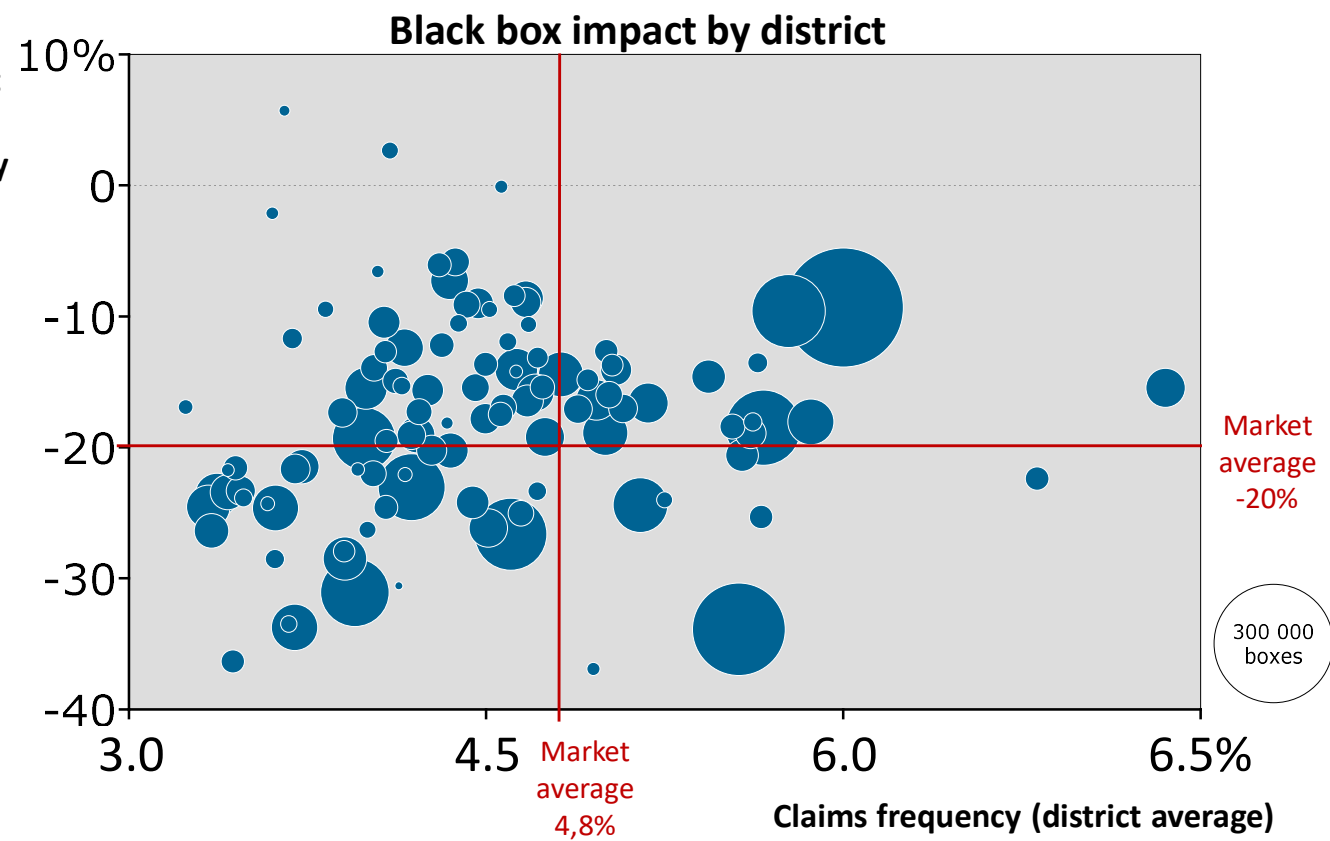


### Services

**Crash support** and a bundle of other services with an annual fee charged to the customer (50€)



Black box effect on claims frequency (risk adjusted)



**The Insurer's presence in case of crash is attractive for good customers...**

**...and allows to avoid bad customers**

\* At the renewal discount adjustment based on the mileage

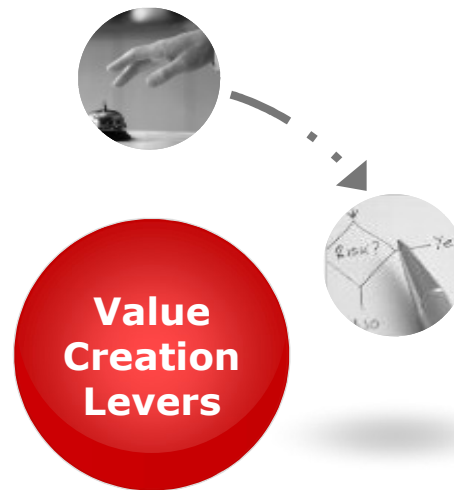
# The value creation framework



# Telematic data can have an extraordinary impact on the way you assess, manage and transfer risks

## SERVICES...

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## RISK SELECTION:

- **Low-risk customer acquisition** due to the storytelling for the product
- Improved **quality of underwriting** process based on sensor data (including constant insights on the exposure)
- Increased underwriting process **efficiency**

# Telematic data can have an extraordinary impact on the way you assess, manage and transfer risks

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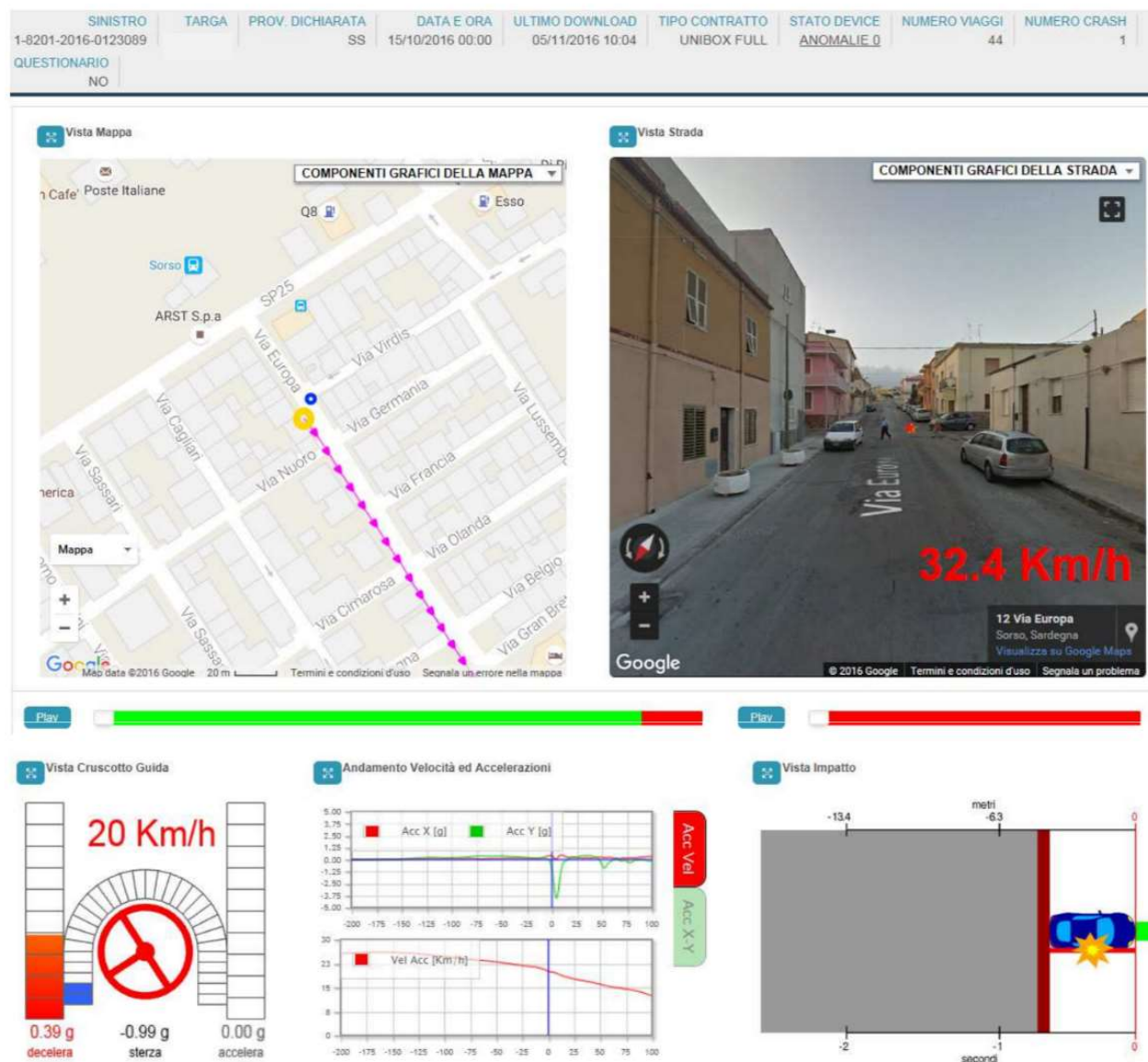
## RISK SELECTION:

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# Few insurers have been able to reinvent their claim processes leveraging the telematic data

*Claims dynamics reconstructed through telematics data are represented “near real time” to the claim handlers on their desktops*



# As you know, claim cost is the big elephant in the room

REAL CASES

**+100%**

Insurer's body shops usage

**-11%**

Material damage costs



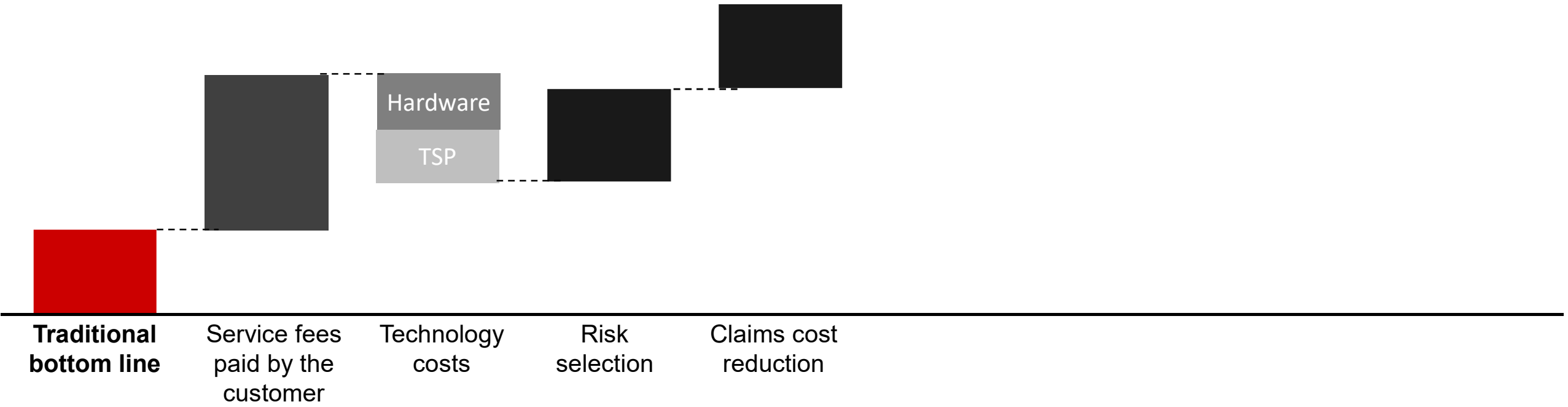
**+5%**

Speed settlement

**-18%**

Body injury incidence

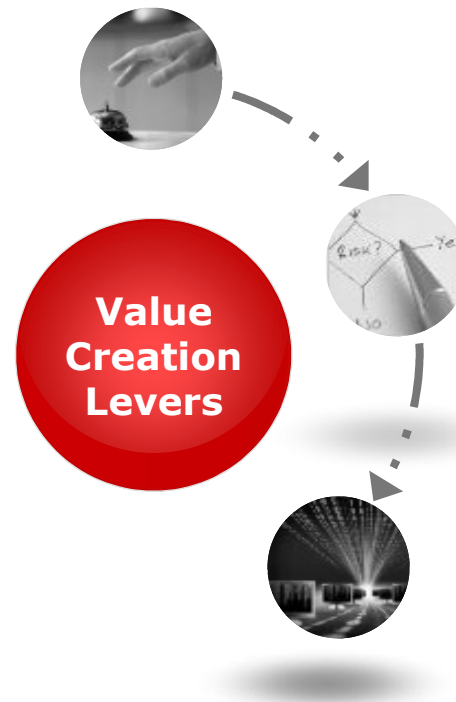
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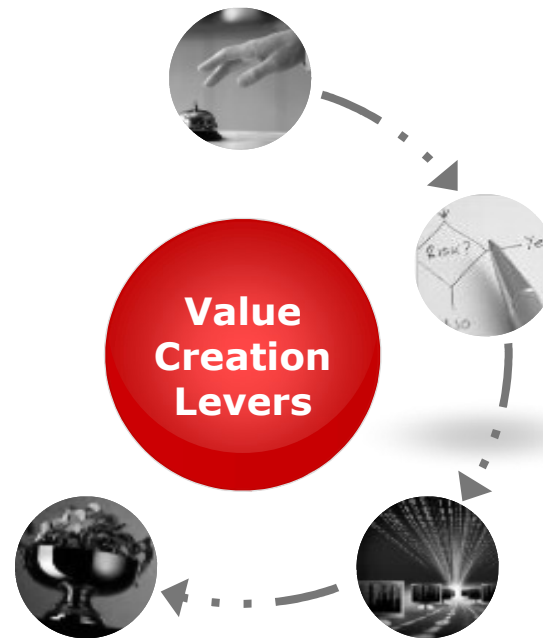
## LOSS CONTROL

- Usage of the device information in order to **anticipate claims management** and **improve reimbursement valuation**
- **LAE reductions**
- **More accurate reserving**

# Telematic data can have an extraordinary impact on the way you assess, manage and transfer risks

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LOYALTY AND "BEHAVIOR-STEERING"

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## LOSS CONTROL

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# An insurer has been able to scale-up a telematic value proposition based on the orchestration of the contributions of partners

## Telematic auto insurance

Smartphone-enabled DQ-Track



Auto insurance coverage sold only with telematics, with insurance premium + service fees paid by the client

## Gas cash back



Each month up to 50% gas cash back based on customer behaviors and financed by partner contributions

## Instant reward



A free coffee, smoothie or parking voucher for every 100 consecutive kilometers of event-free driving

## 5 stars draw



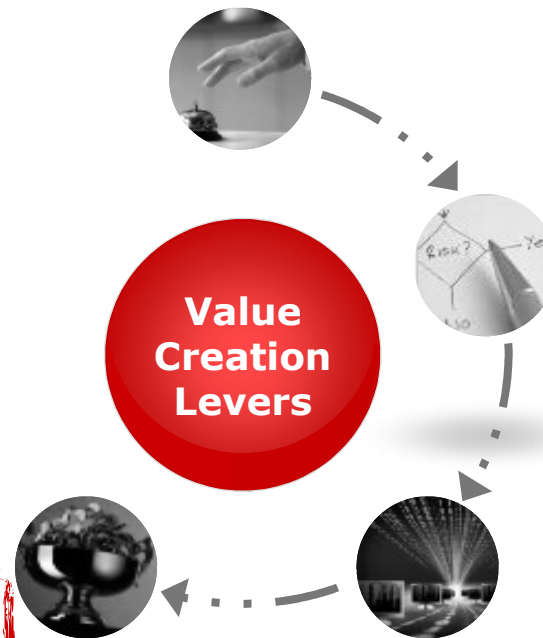
Each day the majority of trips are rated as five star, a chance to win back the amount the customer spends filling up

**This solution has succeeded in influencing behaviors and reducing the risk level of the portfolio**

# Telematic data can have an extraordinary impact on the way you assess, manage and transfer risks

## SERVICES...

- ...based on sensor data to deliver **enlarged value propositions** for the clients orchestrating an ecosystem of partners
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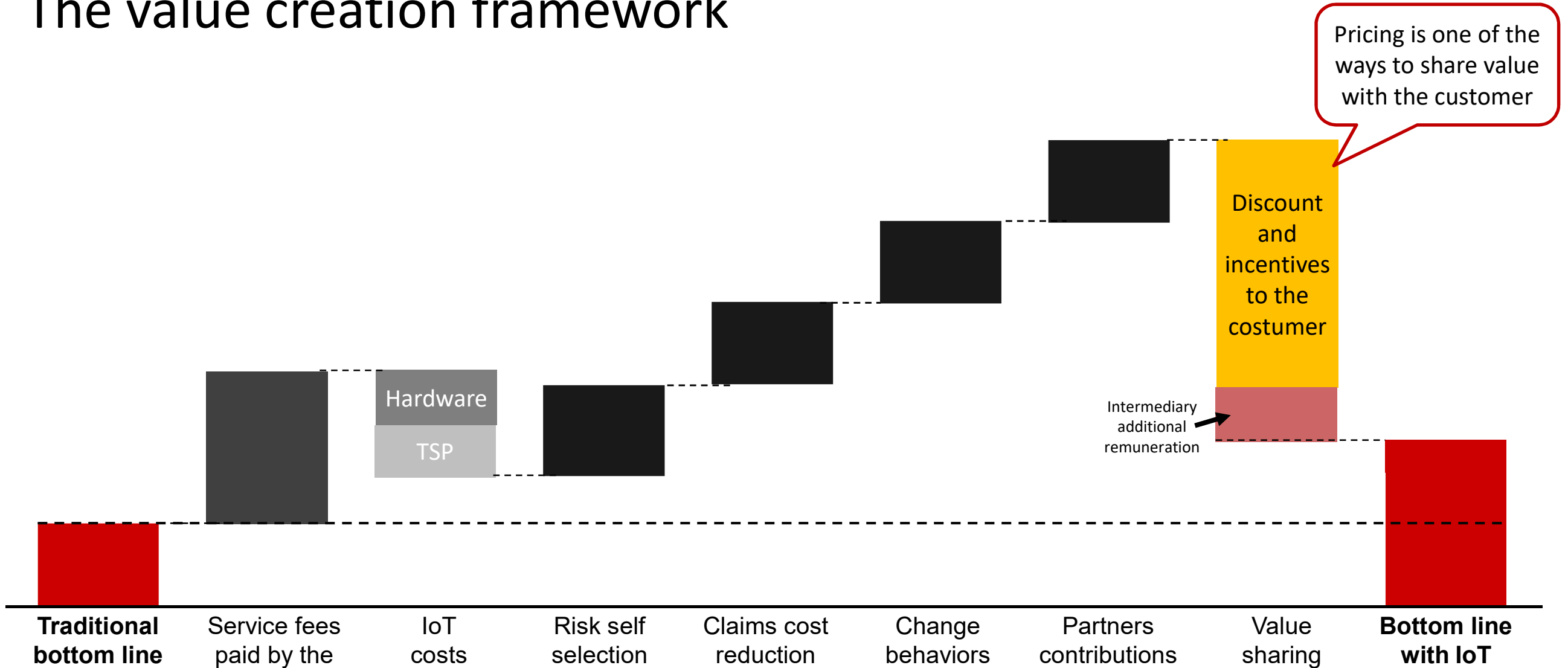
## LOYALTY AND "BEHAVIOR-STEERING"

- **Indirect impact on risk level through:**
  - positive behavior reinforcement (including gamification)
  - culture creation
- **Loyalty systems based on detected behaviors** (retention of low risk clients)

## LOSS CONTROL

- Usage of the device information in order to **anticipate claims management** and **improve reimbursement valuation**
- **LAE reductions**
- **More accurate reserving**

# The value creation framework



**Incentives and discounts are ways of sharing part of the value created in order to make value propositions more attractive**



# IoT data can have an extraordinary impact on the way you assess, manage and transfer risks

## SERVICES...

- ...based on sensor data to deliver **enlarged value propositions** for the clients orchestrating an ecosystem of partners
- ...concerning **information** about insurance coverage and insured perils

## RISK-BASED PRICING

- **More accurate rating:** based on measured "quantity" and "level" of risk exposure

## LOYALTY AND "BEHAVIOR-STEERING"

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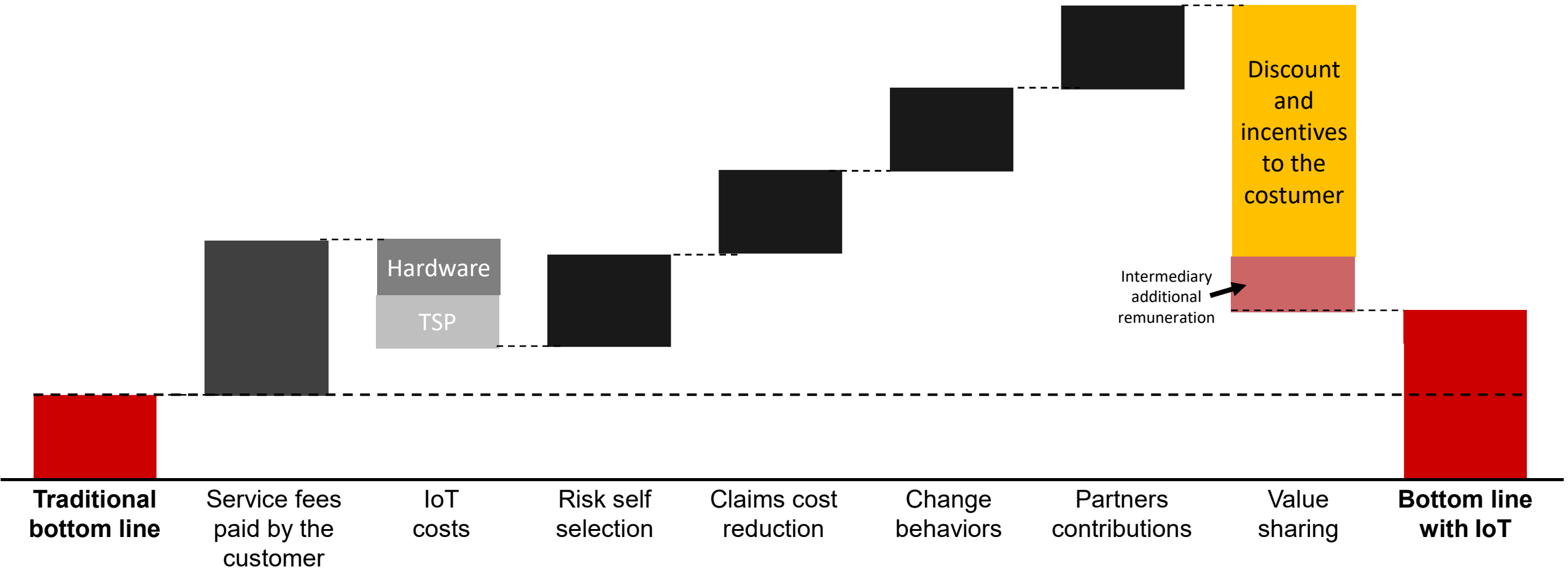
## RISK SELECTION:

- **Low-risk customer acquisition** due to the storytelling for the product
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## LOSS CONTROL

- Usage of the device information in order to **anticipate claims management** and **improve reimbursement valuation**
- Initiatives acting directly in real-time on single situations to:
  - **mitigate risks** before damages occur
  - **contain damages**
- **LAE reductions**
- **More accurate reserving**

# The value creation framework



**Can telematics risk-based pricing also generate additional value to your book of business?**

# The data journey



*Single datapoints detected by sensors*

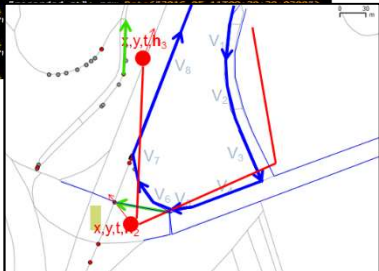
*Calculated data per single units of time, or more aggregated (up to driving scores)*

**Risk Model**

**Rating**

```

1. {
2.   "recorded_at": new Date("2016-05-11T09:29:02.000"),
3.   "received_at": new Date("2016-05-11T09:29:02.000"),
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6.     "time": "45.563090000000000000000000000000",
7.     "fields": {
8.       "GPS_SPEED": {
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10.      },
11.      "GPS_DIR": {
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13.      },
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16.      },
17.      "ODO_FULL_METER": {
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25.      },
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28.      },
29.      "ODO_OBD_TEMP": {
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31.      }
32.    }
33.  }
34. }
  
```



**Predictive models**  
 extrapolated by **actuarial statistical analysis** of historical series of the calculated variables and other "traditional data" available from the Insurance Company

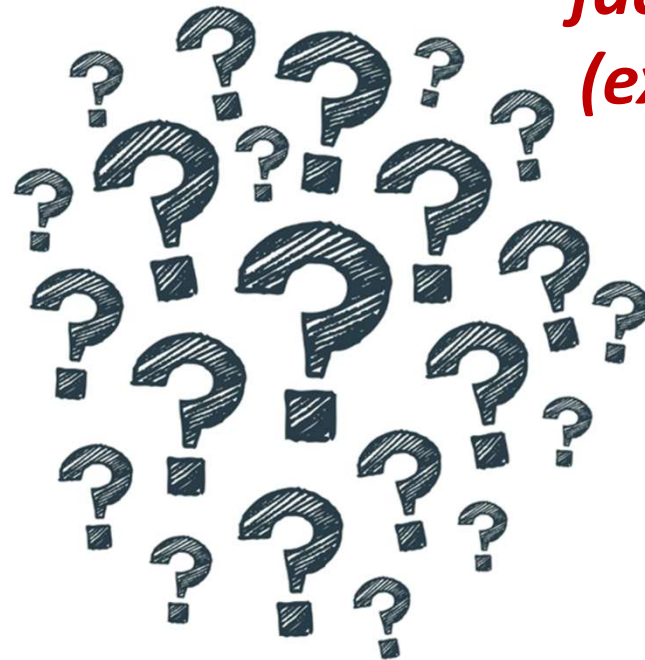
**Risk model integrated with other economic models and product evaluations**

What would the sources of value be if you had to demonstrate the ROI of the new IoT based rating approach?

~~Change behaviors~~

~~Substitute rating factors currently used (expensive to obtain)~~

**Reduction of premium leakage** (because the cluster created by your rating are not homogeneous and you have some clients more risky than you expected within each cluster)



**Positive selection** (ability to attract better risks at each pricing level currently overpriced by competitors who use a less accurate rating)

**Retention of good risks** (ability to retain the best risks at each pricing level)

...

# Telematics is an incredible opportunity for the insurance sector

1

**Value  
creation**



Telematics improves auto insurance profit & loss and allows insurers to share part of this value with the customer in order to increase product adoption

2

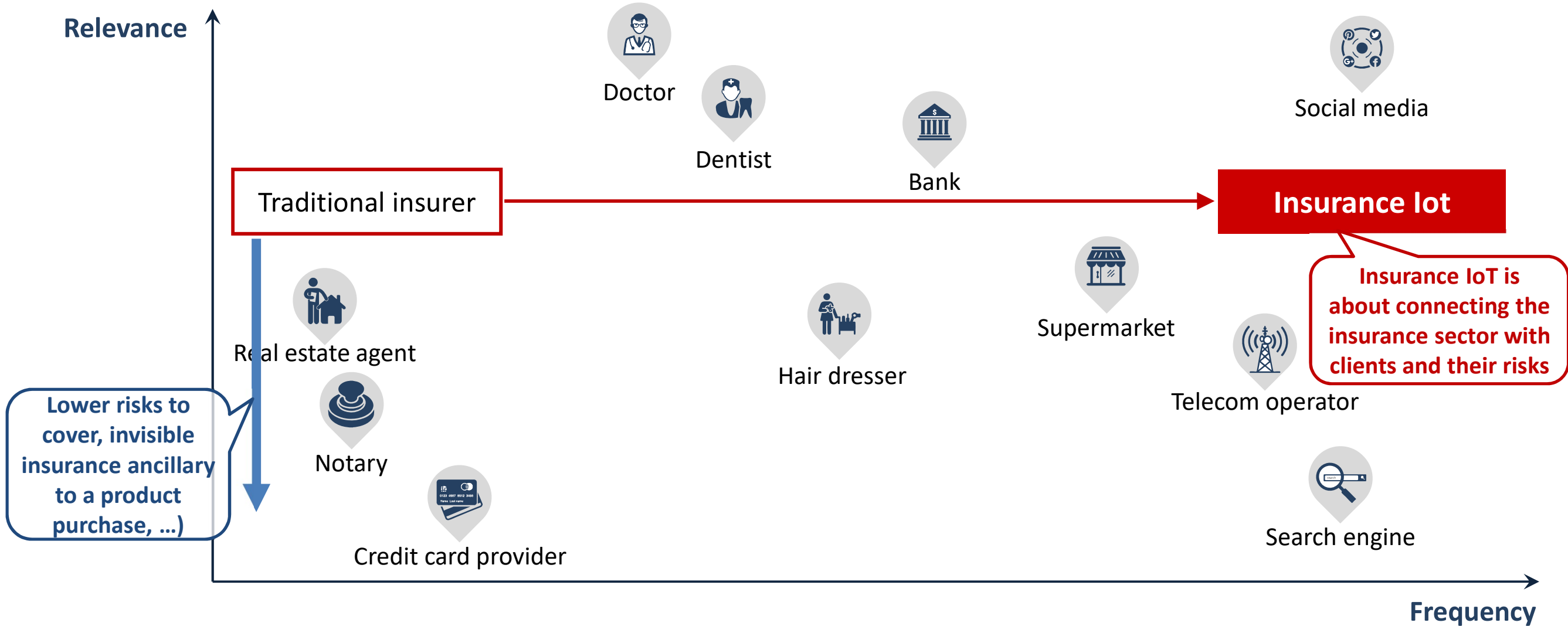
**Interaction  
frequency**



It enhances proximity and interaction frequency with the customer while creating new customer experience, increasing retention, and expanding relationships

# Will Insurers be relevant in the future?

ILLUSTRATIVE



**Irrelevancy is only a choice for an Insurer, not his inevitable destiny!**

# Who is the most reliable provider of an auto insurance telematics offer (insurance contract + services)?



**10%**

**A CAR MANUFACTURER**



**13%**

**GOOGLE, AMAZON,  
FACEBOOK, APPLE**



**56%**

**AN INSURANCE  
COMPANY**

Sources: IoT Insurance Observatory & SSI 2016 customer survey, US customers

# Telematics is an incredible opportunity for the insurance sector

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**Value creation**



Telematics improves auto insurance profit & loss and allows insurers to share part of this value with the customer in order to increase product adoption

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**Interaction frequency**



It enhances proximity and interaction frequency with the customer while creating new customer experience, increasing retention, and expanding relationships

3

**Knowledge creation**



These approaches create and consolidate knowledge about risks and the customer base which will lead to the next generation of products, but also enable further data monetization opportunities through the creation of ecosystems

4

**Sustainability**



Insurance IoT enables a new virtuous role for Insurers by providing positive externalities for a more sustainable society



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



The most pragmatic  
**multiclient research**  
specialized in the  
insurance IoT domain

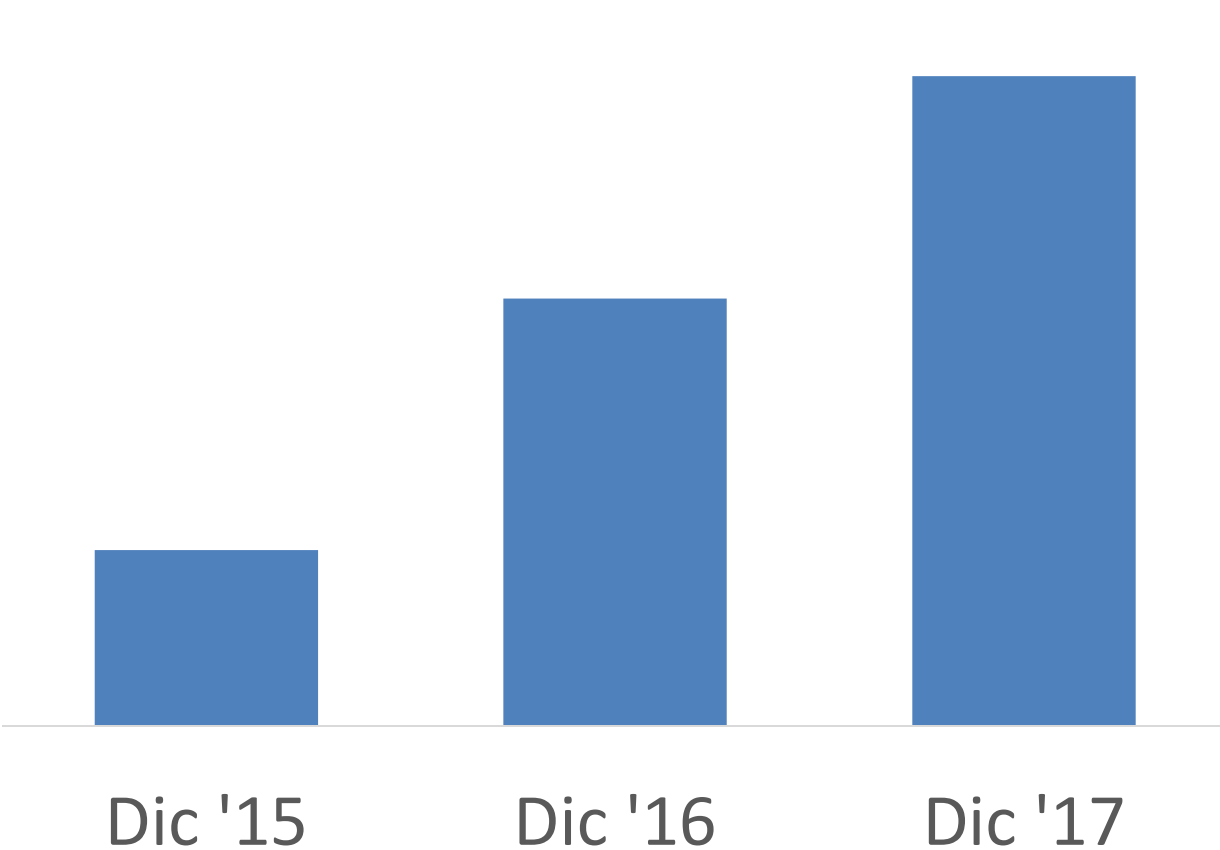


**One-to-one workshops**  
dedicated to each member  
to discuss the research  
outcomes



**Plenary symposiums**  
with all the members  
together around the  
same table

# One member of the Observatory changed its telematics offer aligning the product to the best practices



***Telematics portfolio have grown 4X in 24 months***

***Penetration on their own auto insurance book is almost at 30%***

***75% of the new auto insurance business have been telematics based***

# Thanks for the attention

A small portrait of Matteo Carbone, a man with glasses and a suit, looking slightly to the left. The background of the photo shows some blurred text, possibly from a presentation slide.

## **Matteo Carbone**

Founder and Director of the IoT Insurance Observatory

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