# INTERNET OF THINGS IN INSURANCE: UNLOCKING THE VALUE OF INNOVATION

CONSULTING PROJECT FOR TRANQUILIDADE

CARRIED OUT UNDER THE SUPERVISION OF PROFESSOR CONSTANÇA CASQUINHO

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# ACKNOWLEDGEMENTS

This work project counts with the support of several people without whom it would not be possible to achieve the final outcome.

Hence, the team would like to start by thanking our advisor Constança Casquinho for the restless help, support and patience throughout the entire project. Thank you for always steering us in the right direction, trusting in our capabilities and incentivising us to try harder and better.

Furthermore, we would like to show our eternal gratitude to Tranquilidade for the the opportunity given and especially to the team that worked closely alongside us: Dr. Jan de Pooter, Dr. José Nogueira, Dr. Emmanuel Lesueur, Dr. João Barata, Dr. João Madureira Pinto, Dra. Susana Mayer, Dr. Carlos Silva, Dr. Carlos Soares, Dra. Vanessa Muhlen, and Dra. Leonor Costa. Thank you for introducing us to a completely new set of concepts, for all the time spent answering our questions and for helping us tackle the problems that came along this journey.

A special thank you note goes for Leonor Costa, Product Manager at Tranquilidade and our team leader, for always being there for us and leading our day-to-day activities. Your support in the analytical work and countless hours spent in the strategy room with us, knocking down the obstacles and always moving forward, were crucial to the development of the idealised products that ended up being approved by the company's board. For all your help and inspiration, we will always be grateful to you.

Furthermore, we would like to show how much we appreciated the final offer made by Tranquilidade to stay an additional month, this time as effective employees, in order to give life to the proposed products and implement them in the market.

We would also like to thank all the people who participated in the focus groups for helping us understand the openness of the Portuguese market to these new products. They truly added value to our research. Likewise, we would like to thank to all the people who took the time to answer our online surveys. Moreover, we would like to thank Prof. Dr. José Pinheiro for helping us with the development and analysis of the market research.

Additionally, we would like to express our gratitude to the Jury Prof. Dr. António Nogueira Leite and to the Discussant Prof. Dr. Carlos Santos, for their time and availability to read our work and for their presence on the Thesis discussion.

Last but not least, we would like to thank our friends and family members who have supported us along the way; and our parents, for giving us the possibility of completing our studies in the best university in the country. They have always been our moral and emotional support and there are no words that can describe how grateful we feel for their eternal guidance.

# CONSULTING LAB

## OVERVIEW

The Nova SBE Consulting Lab prepares students for the working environment by giving them the possibility to conduct a real-world consulting project, establishing a valuable relationship between the students and the client. In this specific case, Tranquilidade asked the group to analyse and evaluate the possibility of associating IoT devices to some of its products and to provide further recommendations regarding this situation. The team was based at the company's headquarters for more than 3 months, working alongside the client on a daily basis, with the final purpose of delivering value and to developing hard and soft skills.

## ADVISORS

**Company Advisors**
Jan de Pooter (CEO)
José Nogueira (Administrator of Seguradoras Unidas)
João Barata (Non-Life Director)
Emmanuel Leseur (Marketing Director)
João Madureira Pinto (Direct Department and Partnerships Director)
Carlos Silva (Chief Product Manager)
Susana Mayer (Chief of Clients Unit)
Vanessa Muhlen (Transformation Department)
Carlos Soares (Human Resources Department)
Leonor Costa (Product Manager)
**Nova SBE Advisor**
Prof. Constança Casquinho

## OBJECTIVES

- To apply some of the concepts learned throughout the master's program in a real situation with a business environment
- To acquire new work methodologies and approaches and to develop personal and interpersonal capabilities such as teamwork, time management, syndication and communication
- To deliver true value for the client and to have a meaningful impact on the specific problem

## TEAM



Ana Ferreira (Msc in Management)

Francisco Machado (Msc in Management)

José Neves (Msc in Management)

Tomás Lameira (Msc in Finance)

- The aim of this project is to understand if Tranquilidade can capitalise on the Internet of Things (IoT), by associating them to the traditional insurance policies particularly the Auto and Home insurance products. The entire project was conducted for the two aforementioned insurance products simultaneously, being composed by three main phases: diagnosis, analysis and recommendations.

- Tranquilidade is leading insurance company is the Portuguese insurance market, and was acquired by the private equity firm Apollo Management Group. It belongs to the holding company Seguradoras Unidas S.A. which was created in 2016, alongside AdvanceCare, Açorena and Logo. The company is currently going through a strategic transformation program, called 'Ambition 2020' and recently embraced a rebranding strategy aiming at increasing profitability and continued growth.

- From the external analysis it was possible concluded that the insurance market had been shrinking, on average at 4.8% p.a. during the past 8 years. The insurance market has two main business areas: Life and Non-Life. The weight of the Life segment in the total amount of premiums written has always been above 60%, although it has been decreasing in the most recent years. In the past year, the market has shown a slight recovery. This was largely supported by two factors: the improvement of the Portuguese economy and the competitive market dynamics, with an increasing focus on improving technical issues and product repricing efforts. Looking at the industry landscape, the Portuguese insurance market is highly concentrated, with the top four players - Fidelidade, Ageas & Ocidental, Santander Totta Seguros and Seguradoras Unidas - dominating the market. In 2017, Tranquilidade attained more than 700M€ of revenues from premiums and ranked second in the Non-Life segment.

- On a parallel dimension, Insurtechs which are a subset of fintech companies with a strong focus on big data and internet of things, are disrupting the insurance market. These companies are more agile, digital and have a more personalised offer. This new digitalisation and automation trend could have high potential impacts on insurers value chain, especially in terms of product offerings, claims handling and underwriting. Hence, insurers will have to decide whether they want to follow the trend or if they want to stand aside and risk losing market share. A great level of innovation is currently taking place and Tranquilidade still falls behind some of its main competitors in terms of new initiatives and loss ratio. In the context the team proposes to answer the follow question: "Will Tranquilidade be able to generate value by developing new products, for both the Auto and Home insurance, associated with the Internet of Things?"

- After conducting a national and international benchmark analysis for the use of telematics in auto insurance, the team realized multiple solutions were already being used by insurers to offer customers tailored policies. These technologies can be used to monitor customers' cars, using GPS and on-board diagnostics to record movements on a computerised map, using devices like the OBD (On-Board Diagnostics), the Black Box, the Smart-Tag and even mobile applications.The potential impact of such solutions is huge, ranging from a boost in revenues and margins to positive externalities, such as increased road safeness due to improved driving behaviour.

- From an extensive research and benchmark analysis, the team defined eight potential suppliers that could offer IoT solutions for Tranquilidade's new auto insurance product. However, some of them had to be excluded due to exclusivity contracts and high costs. After this preliminary approach, a deeper supplier analysis was conducted, in terms of product features and market experience. Additionally, in order to study the Portuguese market opness to such solutions, the team studied the market qualitatively and quantitatively, by means of three focus groups and an online survey. Based on them, it was concluded that the smarphone App should be the adopted technological solution.

- Regarding the home insurance product, an identical approach was used. From the benchmark analysis, the team concluded that all around the world, innovative solutions were already being used, from intrusion detectors (e.g. security cameras and motion sensors) to smoke and water leaks detectors.The analysed companies sold the equipment either through bundle or cross-sell. On the first option the insurer sells the devices together with the home insurance and in exchange the client pays a slightly higher annual premium during a predefined number of years. On the second option, the insurer sells the devices separately and offers a discount to customers that prove that the devices are active and running, allowing the insurer to access all the necessary data. On the other hand, at national level, Portuguese insurers have not yet joined forces with IoT companies. Therefore, Tranquilidade would be a first mover in this type of initiative. The team idealized three different packages: the Anti-Theft Pack, the Prevention Pack and the Eco-Savings Pack, which could be acquired individually and provide the client premium discounts. Regarding the potential suppliers and Portuguese Market opness, an analogous approach to the auto case was pursued. The main conclusion was that consumers were mainly interested in Anti-Theft and Prevention Packs and agreed to the proposed discounts of 10% per pack.

- In terms of recommendations, the team recommends the smartphone App as the best solution to be implemented, being prefered by both the Portuguese customer and also by the company due to its high cost-efficiency, with a high quality in terms of collected data and low cost relative to the both the physical devices and the Smart-Tag option. The supplier should be Sentilant, a Portuguese company with market experience, that has already developed a similar solution - Liberty's App "Hit The Road!". The target should be the mass market, instead of only to Top clients as initially hypothesised, potentially benefiting from economies of scale. The App will evaluate the driver's behaviour and attribute a score to each trip. The final score for the month will be a weighted average of the scores and kilometres driven on each trip. The value for the company is a premium discount that could go up to 15%, periodical rewards (e.g. fuel vouchers), entertainment with the gamification component and improved driving habits. The company should follow a cost leadership strategy, positioning itself as the most price-competitive in the industry, especially among the young drivers' segment since they exhibit a high variance in terms of risk and, hence, are usually overpriced by insurers.The distribution strategy will be primarily done through a large network of insurance intermediaries and the internet will be a secondary channel. In terms of promotion, the plan is to create targeted ads, an Instagram giveaway, invest on guerrilla marketing and make use of the company's internal communication. For a twelve month horizon, the business case predicts  over 10,000 app users (in the most likely scenario), of which 25% are new clients, an average claims' costs reduction of approximately 8% and an average given discount slightly above 5%. Consequently, the impact on the P&L will be a positive, generating nearly +26,000€.

- For the Home insurance product, the team recommends the commercialization of the Anti-theft and Prevention Packs, in its basic and plus versions. The basic version applies to homes with up to 4 rooms, and the plus for houses with 5 or 6 rooms.  The Anti-Theft Pack would aim at avoiding intrusions and home thefts while the Prevention Pack would prevent fires, floods and gas leak accidents. As an add-on an eco-savings device (smart plug) should to be sold separately or even offered to the clients at policy renewal. The recommended supplier is Octo, since its offering outperformed the competition in several criteria such as cost efficiency, market experience and diversification of IoT devices. The value for the client would be a 10% premium discount on a standalone pack and 20% on both. Additionally, they would benefit from increased safety and comfort.

- The target should be the medium-high segment, instead of the mass market as initially hypothesised. The underlying reasons are the high initial investment for the client, the monthly fee associated with the service and the fact that the average premium of home insurance is relatively low (high price-sensitivity). Tranquilidade should follow a differentiation strategy, being the first company in the Portuguese market that provides its customers smart home equipment associated the traditional Home insurance. The distribution strategy will be primarily done through a large network of insurance intermediaries, and an online platform will serve as secondary channel. In terms of communication, the plan is to create a web page, targeted ads, invest on guerrilla marketing and make use of the internal communication. For a 12 month period, the business case expects, in the most likely scenario, nearly 5,500 buyers (of which 40% are new clients), an average claims' costs reduction of approximately 17% and an average given discount slightly above 10%. The predicted impact on the P&L is nearly +71,000€.

- To conclude, and in order to understand the impact of this new 3-month project and subsequent product implementation in the market, key performance indicators were defined. These included sales increase with new customers, brand recognition, improved risk metrics, increased customer satisfaction and retention were identified.

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# METHODOLOGY (1/6)

THE AIM OF THIS PROJECT IS TO UNDERSTAND IF TRANQUILIDADE CAN CAPITALISE ON THE IOT INSURANCE OPPORTUNITIES THAT ARE RISING IN THE PORTUGUESE MARKET, PARTICULARLY WITHIN THE AUTO AND HOME INSURANCE PRODUCTS

## SITUATION

After having suffered a consolidation phase and having invested immensely in its rebranding program, Tranquilidade found itself ranked second in the Non-Life segment industry and aiming to strengthen its leading position in the market.

## COMPLICATION

New and unknown IoT solutions are rising in the insurance market and Tranquilidade needs to react quickly. The firm needs to decide how to position itself in this new disruptive market in order to gain market share and sustain its competitive advantage
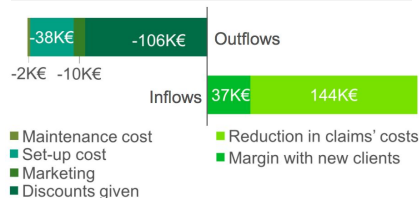
## QUESTION

Will these new and rising IoT solutions generate value for the company?

**YES**

## AUTO INSURANCE

### WHY?

Under the most likely scenario the expected **net income** is +25,648€.

-38K€   -106K€  Outflows
-2K€  -10K€
Inflows  37K€   144K€

■ Maintenance cost    ■ Reduction in claims' costs
■ Set-up cost         ■ Margin with new clients
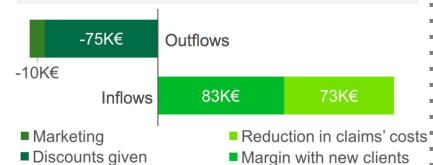■ Marketing
■ Discounts given

### HOW?

Smartphone Application that monitors drivers' behaviour attributing a score based on different parameters. Depending on the scores, the clients receive premium discounts and periodic rewards.

## HOME INSURANCE

### WHY?

Under the most likely scenario the expected **net income** is +71,186€.

-75K€   Outflows
-10K€
Inflows  83K€   73K€

■ Marketing           ■ Reduction in claims' costs
■ Discounts given     ■ Margin with new clients

### HOW?

Different Packs of IoT devices - Anti-Theft and Prevention - that are connected to a mobile application and allow the client to remotely monitor their home 24/7. The acquisition of these packages gives a discount in the home insurance premium.

# METHODOLOGY (2/6)

THE PROJECT LASTED FOR TWELVE WEEKS AND WAS COMPOSED BY THREE MAIN PHASES: DIAGNOSIS, ANALYSIS AND RECOMMENDATIONS. THE TEAM WORKED SIMULTANEOUSLY IN TWO MAIN PROJECTS: THE AUTO AND HOME INSURANCE.

## WORK METHODOLOGY

For 12 weeks, the team was based at the company's headquarters, and gave special attention to the process of syndication, making sure the client was involved and expectations were aligned. This resulted in daily meetings between the team and company members and in the involvement of a Steering Committee, performed once a month.

**Diagnosis**

**Phase 1**: External and Internal Analysis and definition of the initial question.

**Analysis**

**Phase 2**: Identification and evaluation of potential solutions for the perceived challenge.

**Recommendations**

**Phase 3**: Definition of the final recommendations, presentation of the respective *business case* and the subjacent limitations.

During the **Analysis** and **Recommendations** phases, the team worked simultaneously in **two different initiatives**: a solution for the Auto insurance and another for the Home insurance.

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# METHODOLOGY (3/6) - DIAGNOSIS PHASE

THE DIAGNOSIS PHASE WAS COMPOSED BY TWO PARTS: THE EXTERNAL AND INTERNAL ANALYSES FOLLOWED BY A PROPER UNDERSTANDING OF THE CHALLENGE PROPOSED BY THE CLIENT, IN ORDER TO PROVIDE SUITABLE RECOMMENDATIONS.

**Objectives**

The main objective of the external and internal analyses was to understand the **company** and the **insurance business** well enough, so that the team could provide sustained and qualified recommendations. Another goal in this stage was to clearly identify the **main challenge** of the company, which would represent the problem for the team to solve through the recommendations.

**Actions**

Through several initial **meetings** with the Product Manager Leonor Costa, the insurance business was explained to the team in a relevant way to the scope of the project. **Strategic frameworks** were then applied, in order to understand the insurance market dynamics and to capture the moment that the company was going through. The team also met with company members responsible for different areas of the business, such as the Marketing, Technical, Transformation, Partnerships and Product departments, to understand which were the specific needs and requirements of each one of those areas, regarding the main challenge.

**Deliverables**

**Presentation document** which included the external and internal analyses, the main challenge identified and the reasoning that led to the ultimate question.

AFTER UNDERSTANDING THE CONTEXT AND ASSOCIATED CHALLENGE, THE FOLLOWING STEP TAKEN WAS TO ANALYSE AND COMPARE THE DIFFERENT TYPES OF POSSIBLE TECHNOLOGICAL SOLUTIONS FOR THE TWO PRODUCTS AND ITS SUPPLIERS.

**Objectives**

The main objective of this phase was to **identify** and **evaluate** the different available options for the established challenge. This analysis was conducted simultaneously for the two products required by the client: the **Auto** and the **Home** insurance. The ultimate goal was to obtain a **final decision** from the client, in terms of desired type of technological solution from the ones presented.

**Actions**

The team conducted a **benchmark analysis** to understand what was already being done in the national and international insurance markets. This was a crucial step to understand the different solutions available in the market and its respective suppliers. Afterwards, **negotiations** with several suppliers were conducted, with the purpose of understanding and evaluating their attractiveness in terms of features and costs. Once all the necessary information was obtained, the team proceeded to conduct 5 **focus groups** and 2 **quantitative surveys**, in order to understand the preferences and needs of the Portuguese customer. Lastly, after gathering all the information, the team presented the results to the Steering Committee and a decision was taken regarding the type of solution to adopt and the respective supplier, for both Auto and Home insurance.

**Deliverables**

**Presentation document** which defined the different solutions available for the main challenge identified, regarding the type of product and supplier options. This analysis was conducted both for the Auto and Home insurance and consisted of a qualitative analysis in terms of advantages and disadvantages and a quantitative analysis taking into consideration the costs of each supplier.

# METHODOLOGY (5/6) - RECOMMENDATIONS PHASE

FINALLY, THE LAST PHASE OF THE PROJECT CONSISTED IN DEVELOPING THE FINAL RECOMMENDATIONS FOR BOTH THE AUTO AND HOME INSURANCE WITH THE PREDICTED IMPACT ON THE COMPANY'S P&L, SUSTAINED BY A BUSINESS CASE.

**Objectives**

The objective of the last phase was to present a final and complete **recommendation** to the client, with the aim of adding value both to the company and its customers.

**Actions**

In this final phase, the team developed a **business case** for the two products (auto and home insurance) to support the respective recommendations. Based on the decision previously taken regarding the type of solution and supplier, an extensive process of **negotiation** was carried out in order to attain the best possible terms. Ultimately, a **Marketing Mix** plan for each of the two products was developed, as well as an assessment on its potential risks and respective mitigations.
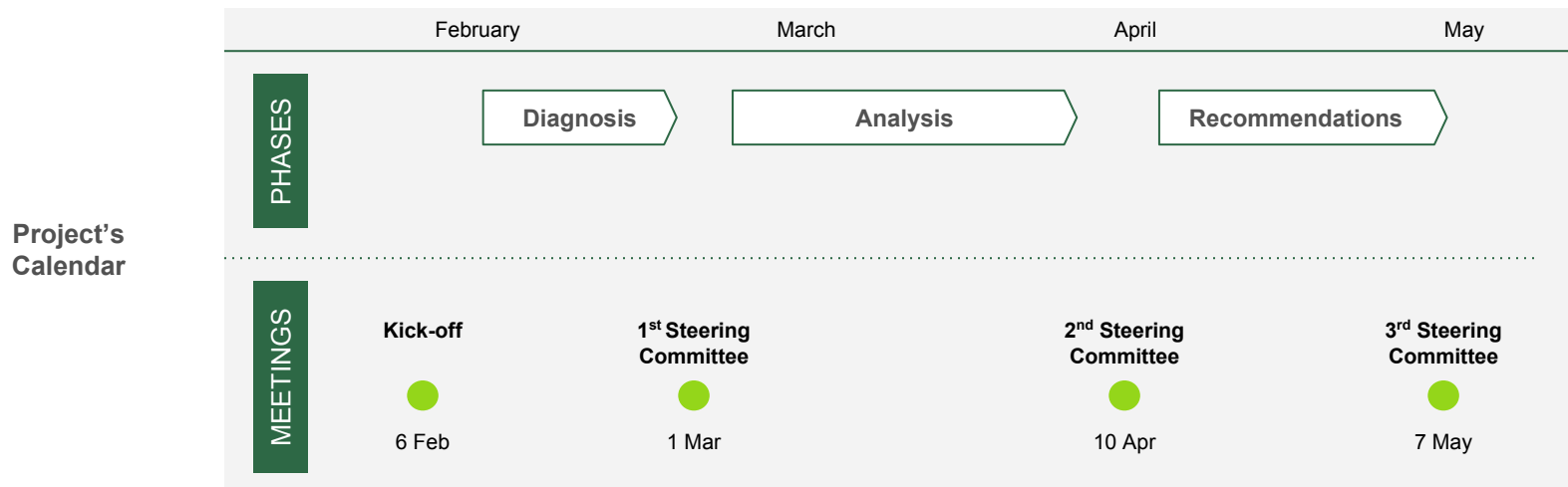
**Deliverables**

**Presentation document** which exposed the team's final recommendations as a solution to the main challenge, both for the Auto and Home insurance, including a Marketing Mix, the impact on the company's P&L and the risk mitigation of each one of them.

# METHODOLOGY (6/6) - PROJECT'S CALENDAR

SINCE THE BEGINNING OF THE PROJECT, WHICH LASTED FOR TWELVE WEEKS, THERE WAS ONE KICK-OFF MEETING AND THREE STEERING COMMITTEE MEETINGS.

**Project's Calendar**

| | February | March | April | May |
|---|---|---|---|---|
| **PHASES** | Diagnosis | Analysis | Recommendations | |

| | | | | |
|---|---|---|---|---|
| **MEETINGS** | **Kick-off** | **1st Steering Committee** | **2nd Steering Committee** | **3rd Steering Committee** |
| | ● | ● | ● | ● |
| | 6 Feb | 1 Mar | 10 Apr | 7 May |

**Steering Committee**

**Jan de Pooter** (Chief Executive Officer); **José Nogueira** (Administrator of Seguradoras Unidas); **João Barata** (Non-Life Director); **Emmanuel Leseur** (Marketing Director); **João Madureira Pinto** (Direct Department and Partnerships Director); **Carlos Silva** (Chief Product Manager); **Susana Mayer** (Chief of Clients Unit); **Leonor Costa** (Product Manager); **Vanessa Muhlen** (Transformation Department); **Carlos Soares** (Human Resources Department); **Prof. Constança Casquinho**

# AGENDA

# PORTUGUESE INSURANCE MARKET – OVERVIEW

IN RECENT YEARS THE INSURANCE MARKET HAD BEEN SHRINKING; HOWEVER DUE TO THE STABILISATION OF THE FINANCIAL MARKETS AND THE GDP GROWTH OBSERVED IN 2017, THE MARKET HAS SHOWN A SLIGHT RECOVERY.

The Portuguese insurance market has been showing signs of some i**nstability over the last years**, with a declining trend, for the time period ranging from 2010 to 2017. During this period, the market has been **shrinking at an average rate of 4.8% per annum**.

The graphic below represents the evolution of the Portuguese insurance market, over the aforementioned 8 years, taking into account the **total amount of premiums written** per year. The weight of the Life segment in the total amount of premiums written has always been above 60%, although it has been decreasing in the most recent years.

From **2010 to 2011** the market shrank almost 30%, the biggest drop for the period under analysis, largely due to the **decrease in Life insurance**, which declined 38.1%. From 2012 until 2014 the insurance market was able to recover gradually, albeit never returning to the levels observed in 2010. This rebound was mainly due to the **uncertainty** lived **in the financial markets**, which led to an **increase in the demand** for insurers' **saving products**.

After **2014**, with the **stabilisation of the financial markets** combined with extremely **low interest rates**, the Life insurance premiums began to slide down again, dragging the insurance market with it.

Yet, during the **last year**, the insurance market was able to recover from 11Bn€ to 12Bn€, **growing at a rate of 6.5%**. Importantly, according to the APS (Associação Portuguesa de Seguradores), the Net Income of Insurance Companies increased proportionally even more, raising from 89M€ in 2016 to 373M€ in 2017. This was largely supported by two factors: the **improvement of the Portuguese economy**, which reached a 17-year high of 2.7% GDP growth, and the **competitive market dynamics,** with an increasing focus on improving technical issues and product repricing efforts.

**PORTUGUESE INSURANCE MARKET GROWTH**
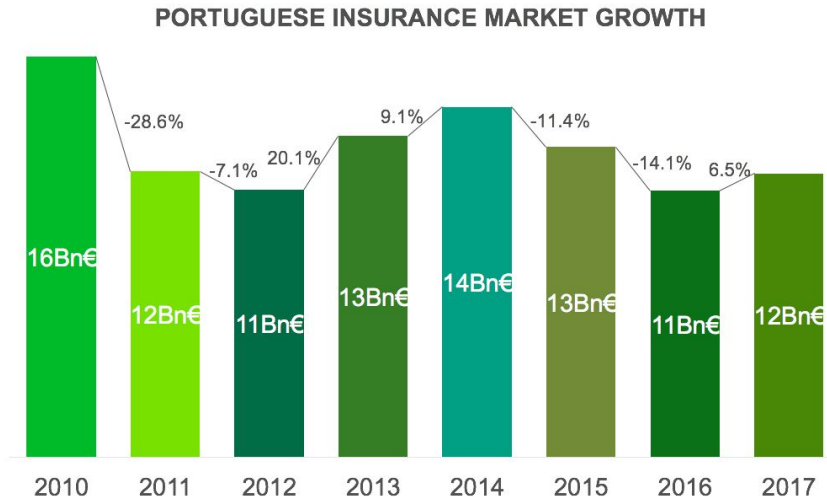


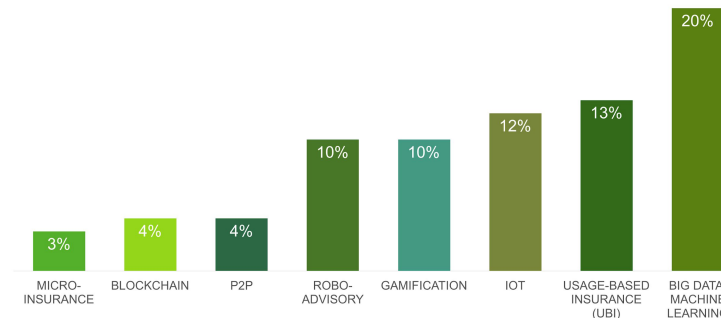Source: Tranquilidade's Annual Reports and Accounts

# NEW TRENDS – GLOBALLY

**INSURTECHS, A SUBSET OF FINTECH COMPANIES, WHICH FOCUS ON BIG DATA AND INTERNET OF THINGS, ARE DISRUPTING THE INSURANCE MARKET. THESE COMPANIES ARE MORE AGILE, DIGITAL AND HAVE A MORE PERSONALISED OFFER.**

In order to try to anticipate how the Portuguese insurance market will perform in the near future, it is important to take a closer look at what is going on at an international level. The insurance industry has remained relatively unchanged for decades due to **high entry barriers**, such as regulation, product complexity, and insurers' large balance sheets, which have kept digital attackers from attempting to enter the market. However, that is changing now, with the **rise of insurtechs**, a subset of fintech companies, which are being funded by venture capitalists globally ($2.6 billion where poured in insurtechs in 2015, and nearly $1.7 billion in 2016). Its technology lies behind the creation, distribution and administration of insurance business. Insurtech focuses on **collecting and analysing customer data** in order to provide a better insurance service in the same way as fintech does in banking and financing. Big Data, Artificial Intelligence (AI) and the Internet of Things (IoT) are the current focus of insurtech, with the majority of invested capital going into these areas.

**INSURTECH ADOPTION OF NEW TECHNOLOGY AND CONCEPTS**



| MICRO-INSURANCE | BLOCKCHAIN | P2P | ROBO-ADVISORY | GAMIFICATION | IOT | USAGE-BASED INSURANCE (UBI) | BIG DATA/ MACHINE LEARNING |
|---|---|---|---|---|---|---|---|
| 3% | 4% | 4% | 10% | 10% | 12% | 13% | 20% |

Source: McKinsey Panorama Insurtech Database

## INNOVATION

A new set of innovative products and processes are disrupting the insurance market. These include smartphone apps, wearables, claims processing tools and online policy handling. By applying machine-learning techniques and using a data-driven approach, Insurtechs are able to draw valuable insights and hence offer innovative personalised products and services to their customer base.

## DIGITALISATION

Instant digital transactions sustained across digital channels are increasingly the norm. Hence, Insurtechs are taking advantage of new technologies to provide coverage to the more digitally savvy customer base. Additionally, with increased interconnectivity, they are able to digitise the "moments of truth.", i.e. customer pain points which may arise whether in advice or claims, that can make or break relations.

## AUTOMATION

By using an automated approach, insurtechs cut costs and accelerate processes to meet customer expectations, as for example an end-to-end automated claims management. Moreover, by consolidating certain areas, such as operations and administrative support, it allows them to focus their efforts on tasks that can provide a higher value added.

# NEW TRENDS – OPPORTUNITIES

MOVING FORWARD, INSURERS WILL HAVE TO DECIDE WHETHER THEY WANT TO FOLLOW THIS NEW DIGITALISATION TREND OR IF THEY WANT TO STAND ASIDE AND RISK LOSING MARKET SHARE.

The disruption of the insurance market and rise of insurtechs does not necessarily mean that all traditional insurers will be negatively affected. Actually, **most of the insurtechs** today (61% based on McKinsey Panorama Insurtech database) **focus on providing services to insurers**, simplifying and digitising parts of the insurance value chain. This means that most of them do not pose a threat to the incumbents, but rather an **opportunity** for them to enhance their product offerings and **generate more value**. In developing strategies to respond to the insurtech challenge, traditional insurers have the advantage of the lessons learned with the fintech experience in banking. That experience helps them anticipating possible threats, as well as the opportunities that may arise.

Engaging with and being inspired by insurtech could allow traditional insurers to **digitise faster and better**, improving their chances in the new digital world. A particular aspect that incumbents will have to tackle is the significantly **higher level of customer engagement** that insurtechs are attaining, through digitalisation and interconnectivity. They also need to analyse the innovation landscape, compare their in-house technological capabilities with insurtech solutions, and consider their **options**, from **digitalising operations** to **acquiring** or **partnering with insurtechs**.

Moving forward, significant **potential benefits** could be reaped by insurance companies in many operational areas, leading to **cost improvements, better capital allocation**, and **greater revenue generation.**

**ROLE IN INSURANCE VALUE CHAIN**
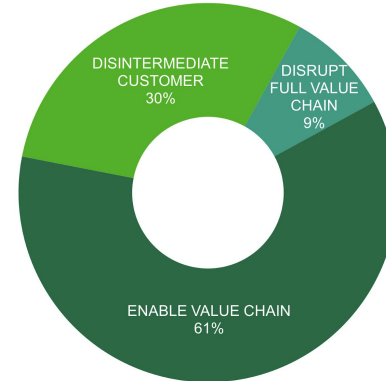


Source: McKinsey Panorama Insurtech Database

Potential Benefits

Better capital allocation | Cost improvements | Greater revenue generation
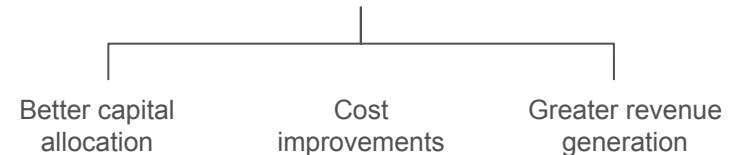
# NEW TRENDS – IMPACT ON VALUE CHAIN

THE POTENTIAL IMPACT OF DIGITALISATION AND AUTOMATION ON INSURERS VALUE CHAIN IS GREAT, BOTH IN PRIMARY AND SUPPORT ACTIVITIES, RANGING FROM NEW PRODUCTS AND BETTER PRICING TO A FASTER AND MORE EFFICIENT ORGANISATION.

The digitalisation and automation of operations, possible due to the recent technological innovations, will have a different potential impact across the incumbent's value chain. In primary activities, the **enhanced analytics** and **advanced risk assessment** methods will affect product development and pricing while the i**ncreased interconnectivity** will impact client-related areas such as Marketing, sales and the service itself.  In support activities it is most likely to affect administrative process handling and the organisational structure, which may become a lot faster and more efficient.

| PRIMARY ACTIVITIES | | |
|---|---|---|
| **Product development** | By having access to a broader and more accurate set of data, incumbents will be able to offer new personalised products to their customers based on their characteristics. They may also increase prevention by associating IoT devices to their traditional offerings. | |
| **Marketing** | Changing consumer behaviour is threatening traditional growth drivers such as TV advertising, causing a shift to online channels and social networks (e.g. Facebook and Instagram). Through them, using big data, insurers can target their audience more effectively. | |
| **Sales and distribution** | New consumer behaviours and entrants are threatening traditional distribution channels, such as insurance brokers. Customers increasingly demand digital distribution models without human interaction. | |
| **Service** | Customers expect personalised, self-directed interactions with companies through any device at any time, similarly to how they deal with online retail leaders like Amazon. | |
| **Claims** | The combination of automation, artificial intelligence and big data are transforming claims processes, enabling insurers to improve fraud detection, payout calculations, cut loss-adjustment costs and eliminate many human interactions. | |

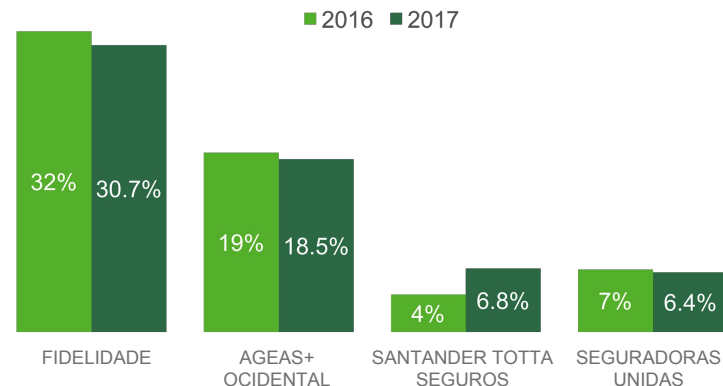| SUPPORT ACTIVITIES | | |
|---|---|---|
| **Firm infrastructure** | Analytical support in the decision process, digital document processing and more efficient internal communication. | |
| **HR management** | Employee analysis based on hard data and facilitated recruitment channels, such as video calls. | |
| **IT** | The digitalisation of operations allows for automated trouble reports, which are simpler and faster. | |

# COMPETITORS – GENERAL OVERVIEW

**THE PORTUGUESE INSURANCE INDUSTRY IS HIGHLY CONCENTRATED, WITH THE TOP FOUR PLAYERS - FIDELIDADE, AGEAS & OCIDENTAL, SANTANDER TOTTA SEGUROS AND SEGURADORAS UNIDAS - DOMINATING THE MARKET.**

The insurance industry can be characterised as **highly competitive**, with more than 640 big, medium and small firms currently providing insurance services in Portugal. About 43 firms operate nationwide and 30 are international operators. The others are smaller regional or local businesses. Fidelidade, Ageas, Santander, BPI and Seguradoras Unidas (conglomerate of brands to which Tranquilidade belongs) are the five players who dominate the industry. The **level of concentration** is quite **high** with the **top ten** firms combined having more than **85% of market share**, and the top three together surpassing 50% of market share. By 2017, the number one player, Fidelidade, registered a market share of 30.7% roughly twice as its runner-up, Ageas+Ocidental group, which totaled 18.5% market share. Seguradoras Unidas is ranked fourth with a 6.4% share of the market, just behind Santander Totta Seguros with 6.8%
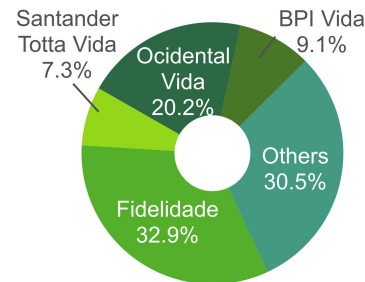
In the **Life business**, there are 18 firms registered as insurance companies in Portugal (both national and international entities). This segment is highly concentrated, with the top ten players holding almost 90% market share, and the top three holding about 60% market share. Fidelidade takes the first place with about one-third of Life segment (32.9%) and the first runner-up, Ocidental Vida, stands behind with 20.2% market share. The third place is occupied by BPI's insurance branch - BPI Pensões e Vida, totaling 9.1% market share. With only 0.8% of market share, **Seguradoras Unidas is ranked 15th**.

In the **Non-Life business**, there are 41 firms registered as insurance companies in Portugal (both national and international entities). The Non-Life segment is also highly competitive, with the top ten players holding approximately 85% market share, and the top three together about 50% market share. Once again, Fidelidade ranks first with 26% market share and is followed by S**eguradoras Unidas**, which **has 15.2% market share**, nearly two times more than Allianz, who appears in third place with a 9.1% market share.

## EVOLUTION OF MARKET SHARE OF TOP PLAYERS



■ 2016 ■ 2017

| FIDELIDADE | AGEAS+ OCIDENTAL | SANTANDER TOTTA SEGUROS | SEGURADORAS UNIDAS |
|---|---|---|---|
| 32% / 30.7% | 19% / 18.5% | 4% / 6.8% | 7% / 6.4% |

## MARKET-SHARE 2017: LIFE SEGMENT



Santander Totta Vida 7.3%
Ocidental Vida 20.2%
BPI Vida 9.1%
Others 30.5%
Fidelidade 32.9%

## MARKET-SHARE 2017: NON-LIFE SEGMENT



Ocidental Seguros 7.0%
Seguradoras Unidas 15.2%
Allianz 9.1%
Others 42.7%
Fidelidade 26.0%
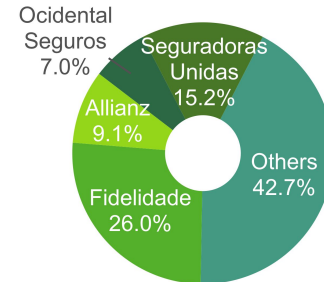
Source: Company's Internal Benchmark Report

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# COMPETITORS – ADAPTING TO THE NEW TRENDS

IN THE NON-LIFE SEGMENT, A GREAT DEAL OF INNOVATION IS TAKING PLACE AND TRANQUILIDADE STILL FALLS BEHIND SOME OF ITS MAIN COMPETITORS IN TERMS OF INNOVATION AND LOSS RATIO.

Even though Tranquilidade is operating in both Life and Non-Life segments, its strategic focus over the past years has been on the latter segment, which is supported by its 15.2% market share and its second place ranking among competitors. In the attempt of becoming market leader in the aforementioned segment, it is important to take a closer look at what its main competitors are doing and how they are positioning themselves in the market. In this context, a **competitor analysis** was conducted **regarding the latest initiatives in digital innovation and loss ratio**, which represents the costs of claims paid for each dollar of premiums received.

## MAIN COMPETITORS

**Fidelidade:** Acquired by the chinese conglomerate Fosun, Fidelidade has proved to be the **leading insurance company** in terms of innovation. In 2017, the company launched several new products related to Home, Auto and Health insurance, with the goal of reducing the loss ratio and its most recent marketing campaign was focused on **digital services**. Furthermore, the co-created Digital Lab recently embraced in a partnership with Deloitte, has the objective of generating new and innovative ideas associated with this digital phenomena.

**Allianz:** Belonging to the giant German Allianz Group, the firm is still catching up with the first runners in terms of innovation and loss ratio. Recently, the company invested on a **mobile App transformation** in order to make it more intuitive and easier to use. So far it seems to have been a success, responding to customer's needs in terms of claims resolution process in the auto subsegment.

**Liberty:** As part of the giant American Insurance Group, with worldwide presence, Liberty has reached an impressive **loss ratio of about 50%**. In 2017, the company decided to bet more aggressively on **technological-oriented products**, launching, for example, a new Auto Insurance App solution. It also developed a new whatsapp chatbot: an automated answer provider, aimed at responding faster and more promptly to its customers.

### POSITIONING CHART OF MAIN PLAYERS



Source: Annual Reports and Accounts

The Non-Life segment usually has more products being launched due to the wider range of risk involved, hence there is more room for innovative ways to control them. In the graphic above, it was compared 5 competitors in terms of **innovation** and **loss ratio**. The level of innovation, on the vertical axis, is defined as the number of innovative initiatives implemented in 2017, while the loss ratio is defined as gross claims costs over gross written premiums. From the graph, it can be observed that **Tranquilidade falls behind Fidelidade and Liberty** both in terms of innovation and loss ratio, meaning that an investment in innovative products could be pursued, with the aim of increasing efficiency.

# COMPETITIVENESS ANALYSIS – PORTER'S 5 FORCES ANALYSIS

ANALYSING THE INDUSTRY'S LONG TERM ATTRACTIVENESS, THE INSURANCE INDUSTRY IS PERCEIVED AS HIGHLY COMPETITIVE WITH MULTIPLE INCUMBENTS AND SIMILARITIES IN TERMS OF PRODUCT OFFER.

POWER OF BUYERS

THREAT OF NEW ENTRANTS — **COMPETITIVE RIVALRY** — THREAT OF SUBSTITUTES

POWER OF SUPPLIERS

Porter's 5 Forces is an analytical framework, developed by Michael E. Porter, with the purpose of not only understanding industries and competitors, but also formulating an overall competitive strategy. It is composed by the five competitive forces that determine the long term attractiveness of an industry and their underlying causes.

The **competitive rivalry** in the Portuguese insurance industry is considered to be **high**. There is a big number of players and high concentration, leading to constant price wars, as product offerings are quite similar throughout the industry. As a result, superior performance has been evermore determined by how players deal with innovation and higher customer expectations when trying to achieve a low-cost structure and greater efficiency.

### THREAT OF NEW ENTRANTS

The threat of new entrants in the industry is considered **medium**. As previously mentioned, there are new insurtech companies entering the industry, but so far they do not pose a great threat to the large incumbents. The entry barriers are relatively high due to law and regulations, and to the high capital requirements for starting and becoming a trusted player amongst the clients.

### POWER OF SUPPLIERS + INTERMEDIARIES

The network of agents act as intermediaries, facilitating insurance sales in exchange for a commission. In this industry, agents play an important role in addressing existing clients and prospecting new ones. Reinsurers are also perceived as suppliers, in this case of funds. They play a major role in providing liquidity and mitigating the firm's business risk. Therefore, their power is regarded as **medium/high**.

### THREAT OF SUBSTITUTES

For the service of insurance there are no direct substitutes, thus the threat is considered **low**. Although, other financial institutions, such as banks, can be viewed as indirect substitutes in some areas. They are usually able to offer more benefits to the customer, for example by offering lower interests on their loans and so shifting customer preferences.

### POWER OF BUYERS

The bargaining power of customers is considered **high**, as customers have a wide range of insurance providers with similar offers to choose from. The switching costs are relatively low and have to do with losing no-claims bonuses on Non-Life insurance and commitment periods on Life insurance, when moving to a new service provider.

# AGENDA

# COMPANY– HISTORY

BEING AN EXPERIENCED PLAYER IN THE INSURANCE MARKET, TRANQUILIDADE WAS ACQUIRED BY THE PRIVATE EQUITY FIRM APOLLO MANAGEMENT GROUP AND CURRENTLY BELONGS TO AN INSURANCE CONGLOMERATE NAMED SEGURADORAS UNIDAS.

Founded in 1871, **Tranquilidade is one of the most prestigious insurance companies operating in Portugal**, as well as in certain foreign markets such as Angola and Mozambique. Back in 2006, in an attempt to augment its presence in the Life segment, the company created T-Vida, a reformulation of the Tranquilidade Vida branch, which controlled the non-associated insurance portfolio of Tranquilidade. Later, in 2008, the company launched its direct insurance brand - Logo, with a strategy focused on gaining market share in the Non-Life segment in Portugal.

By 2015 and after the problems involving Grupo Espírito Santo (GES), Tranquilidade and its subsidiary branches - T-Vida and Logo - were acquired by the American private equity firm Apollo Global Management. In the same year, the american group decided to fully acquire the Advance Care business - before, Apollo already controlled 51% of the company. In the following year, Apollo decided to acquire Açoreana, merging it with Tranquilidade. Due to brand recognition disparities in Portugal and Azores, Açoreana's operations in continental Portugal were transferred to Tranquilidade while the latter's operations in Azores were transferred to Açoreana. Also, in the end of the year, T-Vida ceased to exist as a subsidiary and was incorporated into Tranquilidade as a company's department. After the consolidation, it was defined the name of Seguradoras Unidas for the conglomerate.

SEGURADORAS UNIDAS, S.A.
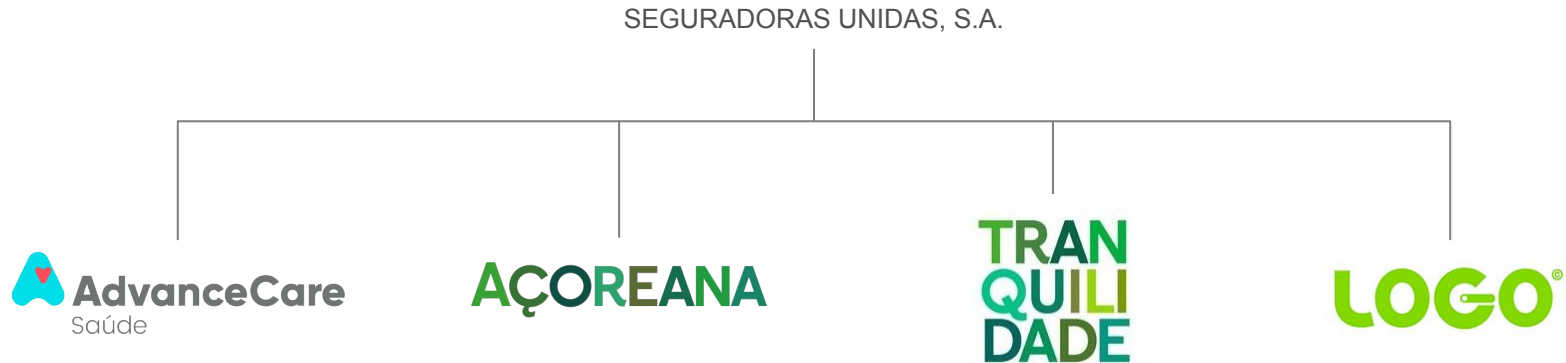
THE COMPANY IS GOING THROUGH A STRATEGIC TRANSFORMATION PROGRAM, CALLED 'AMBITION 2020', AIMED AT INCREASING PROFITABILITY AND CONTINUED GROWTH. THE CORPORATE IMAGE WAS RECENTLY REBRANDED, AS A PART OF THIS PROGRAM.

## AMBITION 2020

Since the end of the acquisition process in 2016, the company has embarked in a **transformational program** called "Ambition 2020", aimed at increasing its profitability and continuing its growth path. With this program the company envisages not only to improve its customers' relationship but also to build a **modern** and **healthy** image, fully dissociated from the banking scandal that took place in 2015. In this context, the company set the **digitalisation** of the customer and partner service platforms a priority, that will serve as a differentiating pillar. Currently, the firm has 120.000 "Green" Customers, which receive all insurances policies and other documents electronically, proving the company's commitment to digitalisation and social responsibility. During the course of 2017, the company also launched several projects related to digital and innovation, such as its own mobile Application named the Tranquilidade App, an ambitious robotisation process program and a transversal program with central coordination aimed at simplifying processes and increasing quality and efficiency.

| COMPANY TRANSFORMATION | • **Innovative** products and services;<br>• Become a **prevention** partner;<br>• Improve the customer **experience**;<br>• Communicate in a **closer** and **simpler** way;<br>• Change the **corporate image** |
|---|---|


2018 Rebranding

## REBRANDING

More recently, in March of 2018, the firm conducted a rebranding strategy involving a total investment of more than 6M€, in order to change its **corporate image**, as a reflection of the entire company transformation. Green continues to be the dominant color, from which emerges 13 different shades of green, which are used throughout the entire communication to symbolise the **unity** and **diversity** of a firm that vows for a responsible lifestyle, so that each client is always **protected**. Also, according to the marketing director, Emmanuel Lesueur, one of the business goals of this rebranding is to increase premium revenues by 5%, mainly within the Life and Health insurance segments.

# COMPANY– OVERVIEW

IN 2017 THE COMPANY ATTAINED MORE THAN 700M€ OF REVENUES FROM PREMIUMS AND RANKED SECOND IN THE Non-Life SEGMENT, BUT ITS NET INCOME WAS STILL NEGATIVE, ITS DEBT AMOUNTED TO 94% OF ITS ASSETS AND THE LOSS RATIO WAS 80%.

## KEY VALUES

Under the control of Apollo, Tranquilidade has been focused on becoming the number one insurer in Portugal. By the end of 2017, the firm accounted more than 700M€ in premium revenues, 1.4M clients in its portfolio and approximately **7% of the total market share** in the Portuguese insurance business. Moreover, the company was the **second largest player in the Non-Life area**, with 15.2% of that particular market segment. However, in the Life segment, it remains a relatively small player with a market share of only 0.8%. In terms of bottom line, even though gross written premiums have been growing at a CAGR of 1.2% during the past four years, the company presented a negative net income (-42M€) in 2017, representing a net income margin of -5.6%.

## FINANCIAL SITUATION

The firm's **total debt** amounted to approximately 2Bn€, corresponding to **94% of the company's total assets**. In terms of intangibles, goodwill amounted to 66M€ resulting from the consolidation of positive synergies generated by the increase in the company's size, namely the operational merger of Açoreana within the holding Seguradoras Unidas S.A.

## COST STRUCTURE

Gross claims costs amounted to 640M€, corresponding to almost 80% of total costs. The remaining 20% were operational costs, which amounted to 170M€.
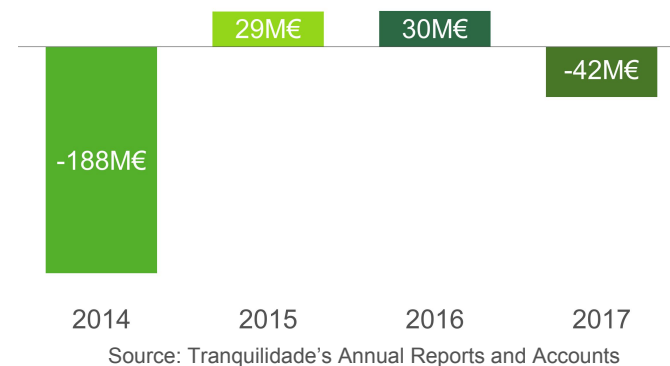The loss ratio, which is calculated by dividing the claims costs over the gross written premiums, was approximately 87%.
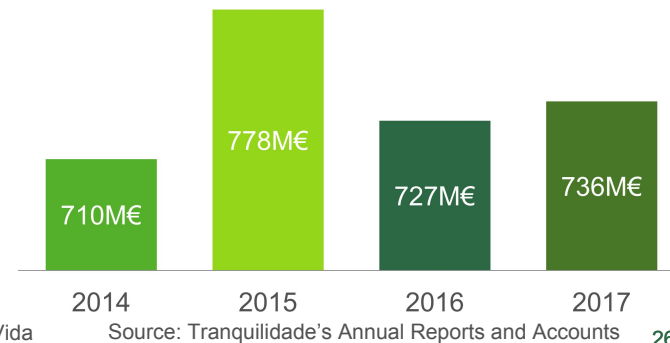
## DISTRIBUTION CHANNELS

The company relies on an extensive distribution network of more than 2 500 sales members: 80 brokers, 2 100 multibrand agents and 400 exclusive agents.

**Notes**: Some of these financial indicators take into consideration the effect of integration of Açoreana, Logo and T-Vida

### EVOLUTION OF NET INCOME



| | 29M€ | 30M€ | |
| --- | --- | --- | --- |
| -188M€ | | | -42M€ |
| 2014 | 2015 | 2016 | 2017 |

Source: Tranquilidade's Annual Reports and Accounts

### EVOLUTION OF GROSS WRITTEN PREMIUMS



| 710M€ | 778M€ | 727M€ | 736M€ |
| --- | --- | --- | --- |
| 2014 | 2015 | 2016 | 2017 |

Source: Tranquilidade's Annual Reports and Accounts

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# PRODUCTS – BUSINESS LINES

Tranquilidade has its insurance business divided in two main business lines: **Life and Non-Life**. In a **Life insurance contract**, the beneficiary is entitled to a lump-sum of money to be payable either upon the death of the insured or after a pre-specified period, and in exchange a premium is paid throughout the policy's life until maturity. These are usually long term contracts, although frequently they can be redeemed after a few years, in which case the policyholder gets a proportion of the premiums paid (surrender value). The Life segment can be subdivided into several sub segments, such as Planos de Poupança e Reforma (PPR), Savings and Produtos Tradicionais. On the other hand, **Non-Life insurance** also known as property and casualty insurance, covers any risk apart from the risk of life. In a Non-Life contract the insurer promises to reimburse the loss suffered by the insured, in case of a certain predefined event. They are usually short term in nature, generally one year, and so renewal is required every year. The Non-Life product segment can be further subdivided into Auto, Accidents & Health, Fire & other Damages, Third Party Liability, Transports and Others. These subsegments can also be further divided into several categories. The Auto, for instance, covers Auto Own Damages and Auto Third Party Liability Insurance, while Fire and Other Damages covers Multi-risk Homeowners Insurance and Others. In terms of revenue generation, the **Non-Life segment** represents **more than 90%** of the **company's total revenue**.

TRAN
QUILI
DADE

| Life (7.5%) | | | Non-Life (92.5%) | | | | | |
|---|---|---|---|---|---|---|---|---|
| PPR (18.1%) | Savings (10.8%) | *Produtos Tradicionais* (71.1%) | Auto (48.6%) | Accidents & health (31.8%) | Fire and other damages (15.4%) | Third party liability (2.5%) | Transports (0.9%) | Others (0.7%) |

Auto sub-segments:
- Others (15.4%)
- **Auto OD \* (29%)**
- **Auto TPL \*\* (55.6%)**

Fire and other damages sub-segments:
- **Multi Risks Homeowners (45.3%)**
- Others (54.7%)
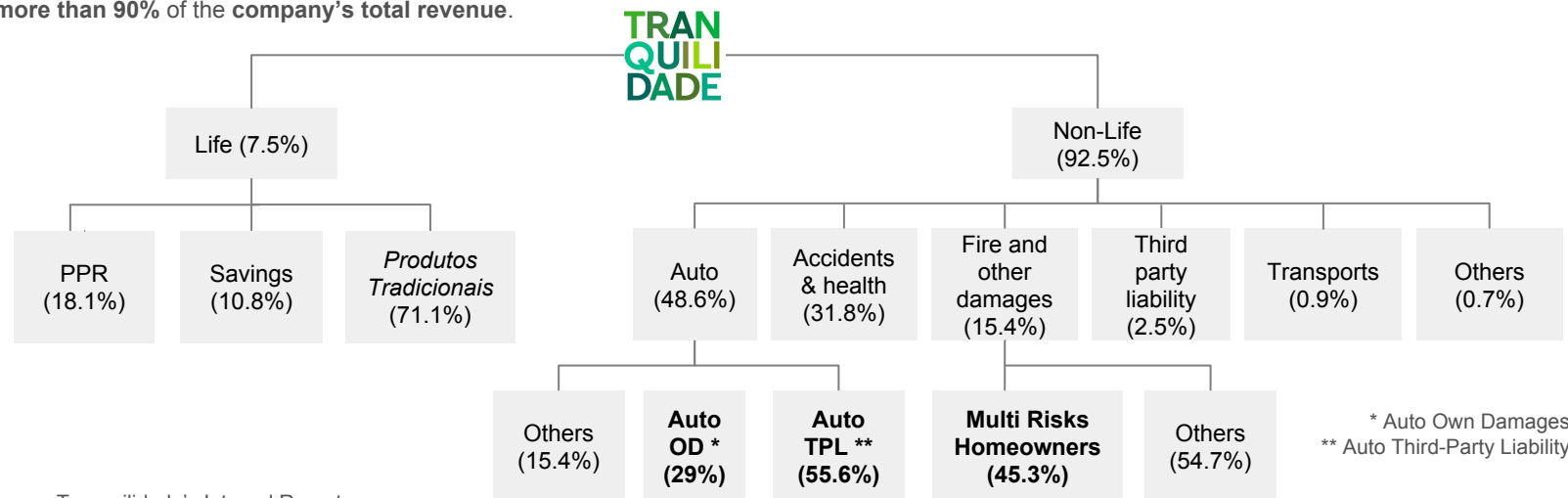
\* Auto Own Damages
\*\* Auto Third-Party Liability

# CUSTOMERS – SEGMENTS

THERE ARE TWO MAIN CUSTOMER SEGMENTS, INDIVIDUALS AND COLLECTIVES. THE FIRST ONE IS COMPOSED BY STANDALONE INDIVIDUALS, WHILE THE SECOND IS COMPOSED BY SMALL, MEDIUM AND LARGE ENTERPRISES.

The company's customer base amounts to approximately 1.4M clients, of which 1.28 million belong to the Non-Life business line, 170,000 belong to Life business line, and the remaining 50,000 are shared by the two business lines.

For both business lines, the company divides its clients into two main segments, **Individuals** and **Collectives**. The first is composed by natural persons, representing the vast majority of the company's client base in both Life and Non-Life, while the second is composed by small, medium and large enterprises.

The needs of these two segments differ significantly. Individuals are usually small buyers and adhere to standardised contracts, while Collectives are usually large buyers, with more bargaining power and frequently need tailored solutions. They also differ in terms of the main insurance products they look for. While **individuals are obliged by law to have an auto insurance** in order to drive a car, companies are obliged to provide their employees other types of insurance, such as civil responsibility and labor accidents insurance.
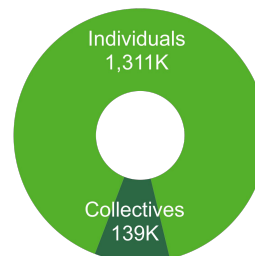
Regarding distribution channel preferences, both customer segments primarily use insurance intermediaries.

Analysing further the Non-Life segment, **1.14M clients are individuals** while the remaining **140,000 being collective** ones. Even though individuals represent approximately 90% of the total Non-Life client base, they only represent approximately half of the total revenue generated for that by Non-Life (49%). This reflects the discrepancy between the average premium of two segments (252€ for the individuals and 2,149€ for collectives).
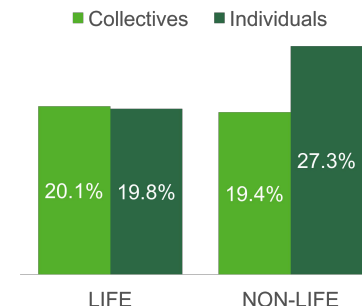
In terms of profitability and rotation, **individuals have a higher profit margin than companies** (27.3% vs 19.4%) and exhibit a slight higher retention rate (86.4% vs 84.6%).

Within the Life segment, 168,000 are individuals and only 2,000 are companies. In terms of profitability both client segments exhibit a similar profit margin (19.8% vs 20.1%, for individuals and companies respectively), and in terms of rotation individuals exhibit on average a higher retention rate (88.9% vs 80.1%).

**NUMBER OF CLIENTS PER SEGMENT**

Individuals
1,311K

Collectives
139K

**MARGINS PER CUSTOMER SEGMENT**

■ Collectives ■ Individuals

| | LIFE | NON-LIFE |
|---|---|---|
| Collectives | 20.1% | 19.4% |
| Individuals | 19.8% | 27.3% |

# AGENDA

# QUESTION – WILL IOT GENERATE VALUE?

THE INITIAL HYPOTHESIS IS THAT TRANQUILIDADE WILL BE ABLE TO GENERATE VALUE BY DEVELOPING NEW PRODUCTS, FOR BOTH THE AUTO AND HOME INSURANCE, ASSOCIATED WITH IOT DEVICES.

Given this new digitalisation trend and competitive landscape, the initial challenge is to understand how Tranquilidade should position itself in the market in order to generate value and gain market share. More specifically, the purpose of the project is to answer, using a methodical data-based approach, **whether or not the company should develop new products associated with IoT equipment within the auto and home insurances**. If the answer is positive, and taking into consideration the company's objectives described below, the team should identify which IoT products should be associated to each of those two areas and advise on the best strategy in order to achieve a sustainable competitive advantage.

## GLOBAL OBJECTIVES

1) Generate **brand awareness**, positioning itself as an **innovative** and **dynamic** company, that offers products with **tangible** and **distinctive** advantages to its customers.
2) **Capture**, **develop** and **retain** clients, especially within the high-value segment (i.e. Top Individuals and Collectives).

## SPECIFIC OBJECTIVES

**Auto Insurance**

→ Develop a new product that bundles the auto insurance with IoT, focused on **safety** and **prevention**.
→ These IoT devices would **monitor** the vehicles' utilisation, providing data for better pricing, risk management and potential savings for the customers.
→ The target would be the top segment, within both Individual and Collective segments.

**Home Insurance**

→ Develop a new product that bundles the home insurance with IoT, also focused on **safety** and **prevention**.
→ These IoT devices would **detect** fires, gas or water leaks, intruders and also help the customer control his utilities' spendings. Additionally, there would be an option to access them remotely. The outcome would be better pricing, risk management and a differentiated offer with potential savings for the customers.
→ The target would be the mass market.

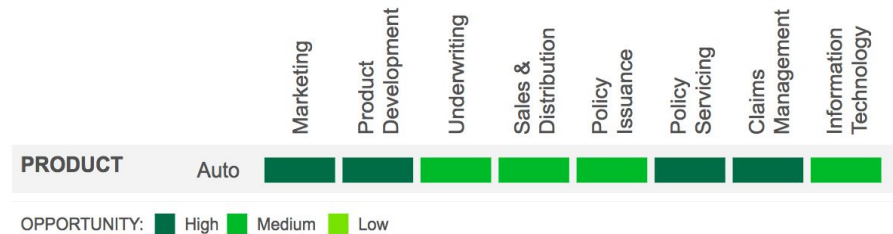# AGENDA

# AN INTRODUCTION TO IOT - AUTO INSURANCE

IOT AND TELEMATICS ALLOW PHYSICAL DEVICES TO COMMUNICATE SEAMLESSLY OVER THE INTERNET WITH OTHER DEVICES OR THE CLOUD. THEY ARE BEING USED BY INSURERS TO OFFER CUSTOMERS TAILORED POLICIES BASED ON THEIR DRIVING BEHAVIOUR.

According to an industry study performed by McKinsey, the opportunity for auto insurance along the value chain seems to be high in marketing and product development. Indeed, **several insurers at both national and international level, are already developing innovative products associated with new technologies, such as telematics and IoT devices**.The Internet of Things is a network of physical devices with sensors that communicate seamlessly over the Internet with other devices or the cloud. The devices in the network may be controlled and sensed from distance, making "things" more connected and integrated to the point that the physical world becomes a single giant computer. In the same line of thought, telematics are a branch of information technology which deals with the long distance transmission of computerised information.

**These technologies are being used by insurers in new product offerings to monitor customers' cars, using GPS and on-board diagnostics to record movements on a computerised map**, using devices like the OBD (On-Board Diagnostics), the Black Box, the Smart-Tag and even mobile applications. By using the "Connected Car" as a competitive lever, they are able to distinguish between "good and bad" drivers and offer clients Usage based insurance (UBI), which are **personalised insurance policies based on the driver profile and needs**.

Additionally, they also improve in marketing terms, by positioning themselves in the market as more transparent and dynamic companies. The potential impact is huge, ranging from a boost in **revenues** and **margins** to positive **externalities**, such as increased road safeness due to improved driving behaviour. By improving driver behaviour and awareness, **telematics could cut the frequency and magnitude of claims**. Towers Watson, a leading UK firm in risk management and human resource consulting, cites a 30% to 40% reduction in claims costs for young drivers. In another study it cites a 30% reduction of claims frequency for one insurer, Norwich Union. Additionally, a study by The Boston Consulting Group showed loss ratio improvements of 15% to 20% associated with telematics programs (assuming constant written gross premiums, this means an equivalent percentage reduction in claims' costs)

**OPPORTUNITIES WITH THE USE OF IOT ALONG THE VALUE CHAIN**

| | | Marketing | Product Development | Underwriting | Sales & Distribution | Policy Issuance | Policy Servicing | Claims Management | Information Technology |
|---|---|---|---|---|---|---|---|---|---|
| **PRODUCT** | Auto | High | High | Medium | Medium | Medium | High | High | Medium |

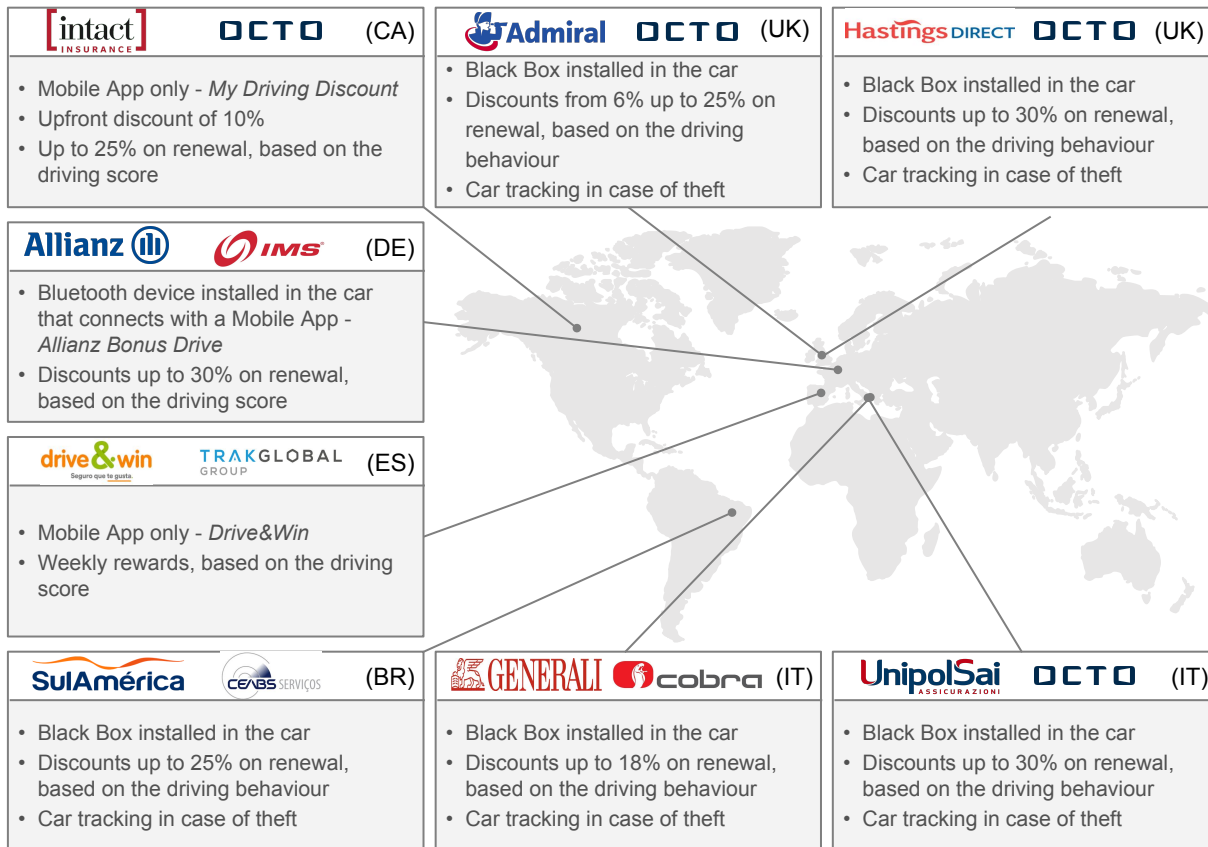OPPORTUNITY: ■ High  ■ Medium  ■ Low

Source: McKinsey Insurance Practice

# INTERNATIONAL BENCHMARK

ALL AROUND THE WORLD, INNOVATIVE TELEMATIC SOLUTIONS IN INSURANCE ARE ALREADY BEING USED, PHYSICAL DEVICES SUCH AS THE BLACK BOX, TO STANDALONE MOBILE APPLICATIONS, WITH DIFFERENT VALUE PROPOSITIONS TO THE CUSTOMERS.

**intact INSURANCE — OCTO (CA)**
- Mobile App only - *My Driving Discount*
- Upfront discount of 10%
- Up to 25% on renewal, based on the driving score

**Admiral — OCTO (UK)**
- Black Box installed in the car
- Discounts from 6% up to 25% on renewal, based on the driving behaviour
- Car tracking in case of theft

**Hastings DIRECT — OCTO (UK)**
- Black Box installed in the car
- Discounts up to 30% on renewal, based on the driving behaviour
- Car tracking in case of theft

**Allianz — IMS (DE)**
- Bluetooth device installed in the car that connects with a Mobile App - *Allianz Bonus Drive*
- Discounts up to 30% on renewal, based on the driving score

**drive&win — TRAKGLOBAL GROUP (ES)**
- Mobile App only - *Drive&Win*
- Weekly rewards, based on the driving score

**SulAmérica — CEABS SERVIÇOS (BR)**
- Black Box installed in the car
- Discounts up to 25% on renewal, based on the driving behaviour
- Car tracking in case of theft

**GENERALI — cobra (IT)**
- Black Box installed in the car
- Discounts up to 18% on renewal, based on the driving behaviour
- Car tracking in case of theft

**UnipolSai ASSICURAZIONI — OCTO (IT)**
- Black Box installed in the car
- Discounts up to 30% on renewal, based on the driving behaviour
- Car tracking in case of theft

In order to understand better how IoT was being applied to the auto insurance, an international benchmark was performed. The main conclusion was that all around the world, **innovative solutions were already being used**, from physical devices (e.g. Black Box) to standalone mobile Applications.

The Black Box proved to be a success in the United Kingdom due to the existence of a market niche, the young drivers. These type of customers are faced with **extremely high** auto insurance premiums and therefore benefit the most from the potential reduction.

In Italy, the government passed a bill, on the 2nd of August 2017, obliging all motor insurers to have telematic devices as an optionality. The country is currently the largest market in the world for telematics, especially for the Black Box solution. These are widely used in southern regions where insurance frauds and tariffs are typically higher. Hence, their use may lead to a bigger cut in premium rates for low-risk drivers.

# NATIONAL BENCHMARK

THE PORTUGUESE MARKET HAS ALREADY WELCOMED THE LAUNCH OF IOT AUTO INSURANCE SOLUTIONS. HOWEVER, IN LIGHT OF SIGNIFICANTLY LOWER PREMIUMS RELATIVE TO ITS EUROPEAN PEERS, THE APP IS THE ONLY ONE THAT STILL PERSISTS.

### FIDELIDADE DRIVE

**FIDELIDADE** SEGUROS DESDE 1808 **THE FLOOW**

Powered by The Floow, a british telematics firm, Fidelidade launched a new App called 'Fidelidade Drive' which monitors and evaluates driver's behaviour. It can be installed by any person, client or not. According to different driving variables, a final score is attributed to the user. The idea is to reward the "best" drivers - those may enjoy up to 15% premium discounts. The app was first launched on September 2017. Rating: 3.6/5 (IOS), 4.1/5 (GooglePlay); +1000 installs.

### HIT THE ROAD!

**Liberty Seguros** **Sentilant**

Powered by Sentilant, a Portuguese telematics startup, Liberty Seguros launched a new free mobile smartphone App that evaluates the user's driving habits and gives a score. There are driving challenges and prizes awarded weekly and monthly for the best driving participants. The App also gives advice influencing the user to improve his driving habits. The app was first launched in 2017. Rating: 4.0/5 (IOS), 2.9/5 (GooglePlay); +1000 installs.

### OK! ASSISTÊNCIA GPS

**OK! teleseguros** **OCTO**

Powered by OCTO, a leading italian telematics firm, Ok!Teleseguros launched a new initiative: offering a Black Box to the customer, in exchange for a 3-year loyalty program. This equipment, which is installed in the vehicle, not only analyses driving behaviour but also locates the vehicle in case of theft, assures immediate assistance in case of an accident and is able to reconstruct car accidents using the collected data. Additionally, good drivers are rewarded by 30% of premium discount.

Once the international benchmark was concluded, the team proceeded to analyse the Portuguese market and how it was adjusting to this new reality.

Even though the **Black Box** was a success in other European countries, it **failed when implemented in the Portuguese market**. This was mainly attributed to the significantly **lower insurance premiums** when compared to other countries, such as Italy and UK.

Since premiums are lower, the benefit from cost reduction associated with the use of such devices did not compensate for its **high costs**.

On the other hand, the standalone **App** seems to be a **feasible** option since its analytical capacity is quite similar to the physical device but has much **lower costs**.

NOVA School of Business & Economics · TRANQUILIDADE

# AGENDA

# TYPES OF IOT SOLUTIONS

THERE ARE CURRENTLY FOUR DIFFERENT TYPES OF IOT SOLUTIONS, DIVIDED INTO TWO MAIN GROUPS: THE APP-BASED AND THE DEVICE-BASED SOLUTIONS; THE FIRST GROUP IS THE MOST COST-EFFICIENT AND ALLOWS FOR CUSTOMER ENGAGEMENT.

| The question? | Which are the existent IoT solutions that can be associated with the Auto Insurance? |
|---|---|

After a deep analysis, it was understood that there are, nowadays, **four different types** of telematic solutions which can be associated with the Auto Insurance, allowing the evaluation of the driver's **behaviour** and **driving style**. They can be divided into two main groups: the **App-based** and the **device-based** solutions. The App-based solutions have an attractive cost-efficiency relationship, and may increase customer engagement through gamification and social networks.

## APP-BASED SOLUTIONS
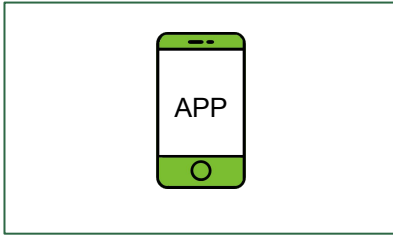
**Smartphone App**

Smartphones are nowadays able to **measure** certain driving parameters (such as speed, acceleration, sudden braking, abrupt curves, among others) and **analyse** this data through an App, delivering to the insurance company valuable feedback about the **driver's behaviour**.

**Smartphone App + Bluetooth Device**

The Smart-Tag solution, as it is called, has the same benefits as the App-only option but provides the **additional advantage** of allowing a proper vehicle identification through a bluetooth connection between the smartphone and a small device, which is installed in the vehicle.

### ADVANTAGES

Both solutions do not require technical installation; they offer the possibility to incorporate **gamification** and **social networks** aspects, increasing therefore the engagement with the user; they have an attractive **cost-efficiency** relationship; reduce generally between **15% to 20%** of claims' costs to insurers (the App plus bluetooth device performs slightly better since, by enabling vehicle identification, it avoids possible errors).

### DISADVANTAGES

Both solutions come with the problem of smartphone battery and mobile-data consumption; they are also **susceptible to fraud** in terms of proper user/trip identification (e.g. user may turn off the phone in a trip or the smartphone may wrongly record a trip when it is not the insured user driving); and they have no access to vehicle performance information.

# TYPES OF IOT SOLUTIONS

THE DEVICE-BASED SOLUTIONS ARE NOT ONLY ABLE TO COLLECT MORE ACCURATE AND RELIABLE DATA BUT ALSO PROVIDE OTHER VALUE ADDED SERVICES. NONETHELESS, THESE ARE MUCH MORE EXPENSIVE OPTIONS WITH POTENTIAL INCOMPATIBILITY ISSUES.

On the other hand, the device-based solutions - despite being able to collect more **accurate** and **reliable** information - have considerable **disadvantages** in terms of cost and set-up, as they are much more expensive and sometimes have compatibility problems with some car manufacturer brands. There are two main device-based solutions, the **OBD** (On-Board Diagnostics) and the **Black Box**, with the latter being considered the most reliable solution within car telematics.

## DEVICE-BASED SOLUTIONS



**OBD Device**

The OBD Device is connected to the vehicle OBD-II port (On-Board Diagnostics), tapping into key vehicle electronic systems and transmitting data via a built-in SIM card. The gathered data is used to analyse driving behaviour and also allows for some **value added services** (e.g. maintenance reminders). It can also track the vehicle's location in case of theft.



**Black Box**

The Black Box connects to the car battery and has the highest possible rating in terms of robustness against tampering. It is the most **expensive** solution available, being able to gather the most **precise** and **reliable** driving data. Additionally, it can also help the driver in case of an accident by requesting assistance immediately, track the vehicle's location if it is stolen, and even help in claims management resolution, since the collected info can help in accidents' reconstruction.

**ADVANTAGES**

The device-based solutions are not open to the possibility of fraud, as they identify the insured vehicle/driver precisely; they also allow the location of the vehicle (GPS) in case of theft and the exhibition of vehicle performance information (e.g. maintenance reminders); these devices collect **reliable data** which can be useful in accidents/claims resolution; reduces claims costs to insurers approximately between **20% to 30%** (the Black Box performs significatively better in this factor due its ability to reconstruct accidents).
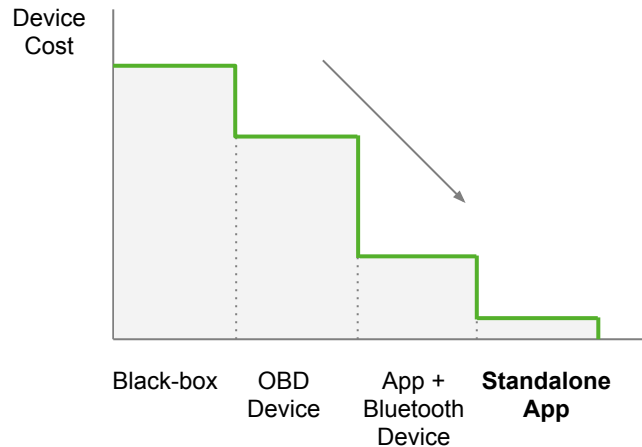
**DISADVANTAGES**

This type of solutions require **technical installation**; there are numerous cases reporting **incompatibility** with specific car brands and vehicle battery drainage plus technical malfunctioning; they are expensive devices with a **less attractive cost-efficiency relationship** than the App-based solutions.
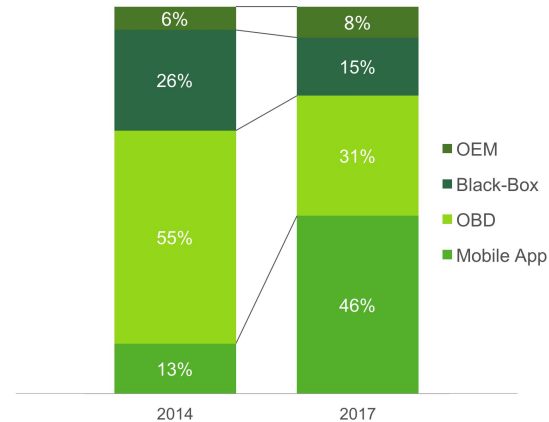
# THE APP RISING

THE ADOPTION OF SMARTPHONE APPS IS INCREASINGLY EXCEEDING THE ADOPTION OF OTHER IOT DEVICES BY INSURANCE COMPANIES, MAINLY BECAUSE OF ITS BETTER COST-EFFICIENCY RELATIONSHIP .

Lately, the smartphone App has become the monitoring option most adopted by insurance companies - mostly due to its technical capacity of analysing driving behaviour at a lower cost for the insurers - with its adoption shifting from 13% in 2014 to 46% in 2017. This type of solution, besides presenting a better cost-efficiency relationship, also presents itself with a high penetration rate, as almost everyone nowadays owns a smartphone, therefore being highly valuable in the matter of customer acquisition. Furthermore, it also promotes the communication between the company and the customer, increasing the involvement generated with the user. This aspect can be explored through the use of gamification and incorporation of social networks aspects, thus, improving the entire experience for the user. All of this analysis led the team to the early belief that the **App-based solutions were the most attractive ones to associate with the Auto insurance**, taking into account all the advantages and disadvantages of the different types of solutions.



Device Cost

Black-box | OBD Device | App + Bluetooth Device | **Standalone App**

**EVOLUTION IN THE USE OF TELEMATICS SOLUTIONS**

| 2014 | 2017 |
|---|---|
| 6% | 8% |
| 26% | 15% |
| 55% | 31% |
| 13% | 46% |

- OEM
- Black-Box
- OBD
- Mobile App

Source: Insurance telematics - A game-changing opportunity for the industry, Accenture, 2014

# AGENDA

# POTENTIAL SUPPLIERS – OVERVIEW

FROM AN EXTENSIVE RESEARCH AND BENCHMARK ANALYSIS, THE TEAM DEFINED EIGHT POTENTIAL SUPPLIERS THAT COULD OFFER THE DESIRED IOT SOLUTIONS FOR THE NEW AUTO INSURANCE PRODUCT.

| The question? | Which telematics firms can provide the desired Auto IoT solutions? |

From an extensive research, it was concluded that there are more than 75 telematics firms worldwide capable of providing the desired auto solutions. Due to time constraints, it was decided to focus the analysis of potential suppliers on firms found on the benchmark and which seemed to have solutions in the Portuguese market. Thus, during a few weeks, **the team contacted 8 different telematics firms** and negotiated their proposals, in terms of product features and costs.

**OCTO**
OCTO is the number one provider of tailored telematic solutions in the world. With 16 years of experience the company has over 4 million connected users. The company recently engaged in a partnership with Ok!Teleseguros.

**IMS**
IMS is a leading firm in providing telematic solutions. With 15 years of experience, the firm has more than 200 connected car patents and more than 10 established partnerships with insurers worldwide.

**Sentilant**
Sentilant is a Portuguese startup focused on delivering telematic services. With yet few years of experience the company has already a successful project in partnership with Liberty Seguros ("Hit the Road!").

**drivit**
Drivit is a Portuguese car telematics startup. Even though the company has its own product App, no insurers have used this solution for their projects.

**CEABS**
CEABS is a Brazilian telematics provider, which has many insurance partners, in both America and Europe. Europ-Assistance, which works with Tranquilidade is also a partner of this Brazilian firm.

**THE FLOOW**
The Floow is a British telematics company. With 6 years of experience the firm counts with some insurance partners, having launched a project with Fidelidade - Fidelidade Drive.

**Bclose**
Bclose is a Portuguese firm specialised in providing different connected services. The company has yet few experience in the connected car services.

**oseven**
OSeven is a leading Greek telematics firm, counting with some years of experience and having developed some pilot projects in Europe. At Tranquilidade it was developed a internal pilot for some weeks to test their products.

# POTENTIAL SUPPLIERS – ANALYSIS

SEVERAL POTENTIAL SUPPLIERS WERE CONTACTED, WITH SOME OF THEM BEING ELIMINATED DUE TO EXCLUSIVITY CONTRACTS AND HIGH COSTS. AFTER THIS, A DEEPER SUPPLIER ANALYSIS WAS CONDUCTED, TO COMPARE THE REMAINING OPTIONS.

## PRELIMINARY SUPPLIER'S ANALYSIS

Each supplier was firstly contacted via email. Afterwards, meetings and video conference calls were conducted in order to understand their product solutions and prices.

First of all, from the conversations, it was understood that **some firms could not pursue a partnership with Tranquilidade because they had exclusivity agreements** with other insurance companies. This happened with one supplier, The Floow, which had signed an exclusivity agreement with Fidelidade, to develop its new auto insurance product - "Fidelidade Drive".

THE FLOOW

(excluded)

## SECONDARY SUPPLIER'S ANALYSIS

After some initial conversations, the team realised that most of the suppliers offered the same telematic solutions and insurers already had some projects implemented around the world. These projects were important to understand how much claims frequency could be reduced, and consequently, in how much costs could be reduced. Besides this, to perceive which was the customer's response to a telematics-oriented insurance product and how data flows between insurer and supplier. After some round of conversations, the team had not yet decided on which telematic solution to adopt. Nevertheless, the firm's board stated that the maximum investment in the Auto insurance product would be 100,000€. Hence, **some of the suppliers had to be eliminated since their proposals were far too expensive for Tranquilidade.**

IMS    close making your life easier    oseven

(excluded)

## FINAL SUPPLIER'S ANALYSIS

With the remaining suppliers (OCTO Telematics, Drivit, Sentilant and CEABS), the team proceeded to the analysis of portuguese market in order to understand which product would be most valued by the customers and the underlying business model. **The final supplier's analysis was then carried later when there was a clearer and deeper understanding of the customer's preferences** regarding IoT products in insurance, which can be found in the Recommendations section.

drivit    Sentilant

CEABS SERVIÇOS    OCTO

# AGENDA

# MARKET RESEARCH

TO STUDY HOW THE MARKET WOULD RESPOND TO THE RELEASE OF AN AUTO INSURANCE + IOT OFFER, THE TEAM STUDIED THE MARKET QUALITATIVELY WITH THE ORGANISATION OF THREE FOCUS GROUPS AND QUANTITATIVELY BY DOING AN ONLINE SURVEY.

| The question | How will the Portuguese customer respond to a new offer of Auto Insurance + IoT? |
|---|---|

After analysing what is being done in the market and the potential IoT products to associate with the auto insurance, there was the need to study the demand side. Thus, the team analysed the market both in a **qualitative** way, with focus groups, and in a **quantitative** manner, with an online survey. The main objectives of the market research conducted were: to evaluate the perception of the customers regarding their current insurance service; to study the openness to the different IoT solutions and willingness to pay; the minimum discounts considered valuable; and the reasons that would incentivise the adherence to such solutions.

## QUALITATIVE RESEARCH:

The qualitative research consisted in **three focus groups**. The focus groups were chosen as market research method, given that they allow for **discussion of ideas** that help identify the requirements customers would have for the proposed product as well as other needs that are not being addressed by any other competitor in the market. Furthermore, it allows to better understand the perception of the customers to the new offer by evaluating the immediate reactions shown by the participants.

In order to get homogeneous groups and given that the geographical area and age are the variables believed to make the perspective about insurance differ, people were divided into **different age groups** and conducted the discussions in **two different areas**. All the participants were car owners and had an auto insurance policy in their name.

### FOCUS GROUPS

| Location | Age Groups | Participants |
|---|---|---|
| Lisbon | 25 - 35 y.o. | 10 |
| Lisbon | 35 - 65 y.o. | 6 |
| Viseu | 35 - 65 y.o. | 9 |

### PARTICIPANTS DIVISION BY GENDER

54%

46%
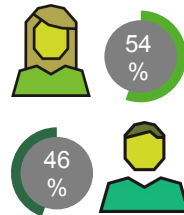
### FOCUS GROUPS SECTIONS

**1. The choice of auto insurance** – introductory section to understand the situation of the customers in terms of their current insurance service

**2. The New Auto Insurance** – in which the different IoT solutions and their benefits were discussed

**3. Rewards Models** – to study the different rewards options and the customers perception about them

**4. Communication** – to study communication channels

# QUALITATIVE RESEARCH – MAIN CONCLUSIONS

THE FOCUS GROUPS ALLOWED US TO CONCLUDE THAT PEOPLE SAW MORE BENEFITS IN THE OBD TECHNOLOGICAL SOLUTION, ALTHOUGH THEY WOULD NOT BE WILLING TO PAY FOR IT; IN TERMS OF REWARDS, THERE WERE DIFFERENT OPINIONS.

All focus groups were relevant to understand several parameters that were taken in consideration when recommending the final offer.

**1. The Choice of Auto Insurance:** In the first section it was possible to conclude that when choosing an insurance, most people do **online research** and **simulations** on the different options available in the market, but end up closing the deal with an **insurance agent** or **broker**. The main selection criteria are **price** and **brand recognition**, with participants saying they only opt for insurance companies that they have already heard good opinions about.

**2. The New Auto Insurance:** This section started by asking the participants how they pictured the insurance of the future and some of the insights collected were that it should **reward the good drivers**, reduce the premium significantly when there were several years with no accidents and that there should exist partnerships between the insurer and outside firms valued by the customer. When presented with the option of having a more personalised insurance, adjusted to their driving habits, the immediate **reaction was positive** in general, and it was stated that it would be a more fair approach. Nevertheless, some people raised **concerns**, such as the fact that people who believe to be bad drivers would not want to try this solution. Furthermore, **data collection** was also a preoccupation, with people stating that in order to concede their information to the insurance company, there would have to be clear **outlined benefits**. Although there are already some competitors in the Portuguese market doing this, no participant knew about it.

After the benchmark and potential suppliers analyses, it was decided that the Black Box would not be relevant for the Portuguese market, given its high costs and relatively similar functions to the OBD. Thus, in the focus groups three different technological solutions that would allow to analyse the driver behaviour were presented: the smartphone App, the smartphone App+Bluetooth device and the OBD. In terms of benefits, people generally preferred the OBD solution, as it would allow for geo-location. Yet, when asked if they would be willing to pay for the device, very few said they would. Thus, it led us to the belief that, in order to have people trying the IoT solution for the Auto Insurance, it would have to be an App-based solution.

**3. Rewards Model:** By having an insurance dependent on drivers' behaviour, it would mean that the price paid by the policyholder would have to be adjusted based on the score obtained. Given that, and in line with what is being done at both national and international levels, there were presented two options in terms of reward models: a discount of 10% in the insurance premium at renewal (after one year of using the App), or periodic rewards/coupons to be given depending on a specific challenge. Most people above 35 years old said **they would prefer the discount, although 10% seemed too little**. On the other had, the people younger than 35 years old were equally interested between the two reward options.

**4. Communication:** This section ended up not being relevant in terms of conclusions, as people suggested very different communication channels (i.e. social networks) and a consensual answer was not found.
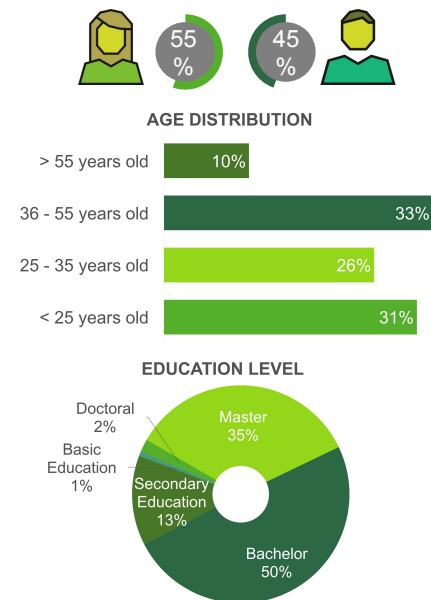
# QUANTITATIVE RESEARCH – SAMPLE CHARACTERISATION

THE QUANTITATIVE RESEARCH CONSISTED OF AN ONLINE SURVEY, IN WHICH 437 ANSWERS WERE COLLECTED; THE SAMPLE WAS REPRESENTATIVE IN TERMS OF GENDER AND AGE, BUT RELATIVELY BIASED IN TERMS OF GEOGRAPHICAL DISTRIBUTION
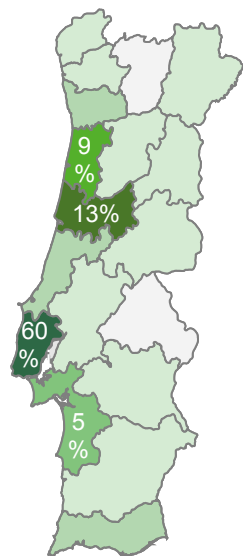
**QUANTITATIVE RESEARCH:**

The quantitative research consisted in a **survey distributed online**. The team was able to gather **437 answers** in total, of which 84% had an Auto insurance policy. Of those who answered they did not have insurance policy, only 10% proceeded to the following questions, in order to avoid a biased sample of people with no experience within insurance services.

**CHARACTERISATION OF THE SAMPLE**



55%   45%

**AGE DISTRIBUTION**

| | |
|---|---|
| > 55 years old | 10% |
| 36 - 55 years old | 33% |
| 25 - 35 years old | 26% |
| < 25 years old | 31% |

**EDUCATION LEVEL**

- Doctoral 2%
- Basic Education 1%
- Secondary Education 13%
- Master 35%
- Bachelor 50%

**GEOGRAPHIC DISTRIBUTION**



9%
13%
60%
5%

The sample collected was **representative in terms of gender**, exhibiting a 55% to 45% division between women and men, respectively.

The age group of people over 55 years old is the less represented one within the collected sample, accounting for only 10% of the respondents.

In geographical terms, **Lisbon** is the most represented district, followed by Coimbra and Aveiro. The non represented districts are Vila-Real, Portalegre and the islands of Madeira and Azores.

Lastly, regarding education level, **most of the respondents had a university degree** (85%), which might indicate the sample is relatively biased in this parameter.

# QUANTITATIVE RESEARCH – MAIN CONCLUSIONS

THE ONLINE SURVEY MAIN CONCLUSIONS WERE THAT THE APP SHOULD BE THE ADOPTED IOT SOLUTION AND THAT PEOPLE WOULD PREFER BEING GIVEN A DISCOUNT IN THE PREMIUM RATHER THAN RECEIVING PERIODIC REWARDS.

**1. General Questions:** The survey started off with general questions about the current car insurance held by the respondent, such as the kind of insurance policy, the premium paid and its payment periodicity. The answers reflected that there is a balanced division between people with Third-Party Liability Insurance (52%) and Own Damages Insurance (48%), and 50% of the people pay an average annual premium between 200€ and 500€.

**2. Willingness to Download:** Given the conclusions reached in the focus groups regarding the different possible solutions, the team decided to firstly present the App-based telematic solution for analysing driving behaviour. People were asked about their willingness to download the App under three different scenarios: **63%** stated they would d**ownload the App just for the possibility of improving their driving behaviour**; **83% answered** they would download the App if it t**ranslated into a premium discount based on their driving score**; and **67% would download** the App if instead of the premium discount **they received periodic rewards**, also dependent on the driving score. Additionally, within respondents who stated they would download the App if given a premium discount, 87% would be satisfied with the proposed discounts (up to 30€ for people with Third-Party Liability and up to 60€ for people with Own Damages auto insurance). The aforementioned discounts correspond to approximately 15% of the average premiums paid in the two insurance types. On the other hand, within the respondents who answered they would download the App if they were given periodic rewards, 86% would prefer to receive higher value rewards with less frequency than smaller rewards more frequently. For a given list of possible rewards, the most chosen were coupons for fuel and supermarkets.

These results led to the conclusion that, even though the three scenarios got positive results, people would be **more willing to download the App if given a premium discount.** Nonetheless, the possibility of giving periodic rewards was not completely excluded by the team, as it would allow the company to potentially increase customer engagement.

**3. Other Technological Solutions:** The last part of the survey consisted in analysing the other two telematic solutions: the App+Bluetooth device and the OBD. Regarding the Bluetooth device option, most respondents **(68%)** either already had Bluetooth incorporated in the car or would **not be interested in acquiring the device**. From the interested ones (32%), only **46% would buy the device for 15€**, meaning that from all the respondents, only **15% would be potential buyers.** The OBD Device seemed to have a better acceptance (68%), as the benefits for the customer are more clear: it allows for geo-location, which is extremely useful in case of car theft. Yet, only **23% of those interested in the OBD Device would be willing to buy it for 100€.**

Considering all the information described above (i.e. competitors new solutions from benchmark, cost restrictions posed by administration, Portuguese insurance context and customer's preferences) the team was led to believe that the **best IoT solution** for auto insurance would be the **standalone mobile App.**

# AGENDA

**HOME TELEMATICS COULD PROVIDE A WIN-WIN SITUATION FOR BOTH CLIENTS AND INSURERS, BY HAVING A SMART HOME CLIENTS WOULD BE SAFER AND MORE COMFORTABLE WHILE INSURERS COULD HAVE POTENTIAL LOWER COSTS.**

In the same way insurers are using IoT and telematics to learn more about customers' driving behaviours and help them price better auto insurance rates, they are also using it to learn more about their home insurance customers too.

In the home setting, the **implementation of Internet of Things applications creates a wide range of opportunities** from energy management to security enhancement and automation of domestic chores. These devices create a Smart Home and allow the customer to remotely monitor water and electricity levels, temperature, and key risk factors such as smoke and break-ins. Moreover, they can alert homeowners by means of a mobile App notification or a traditional SMS in the event of a potential danger, enabling them to act quickly in an emergency scenario. **Through early detection, sensors could help reduce property damage in case of a fire or water leakage.**

According to an industry study performed by McKinsey, the opportunity for home insurance along the value chain seems to be high in product development and claims management. Intuitively, this makes sense since by having access to the aforementioned information, insurers can base their home insurance rates on data that affects specific households, **offering its clients a personalised product.** Also, by having access to all the necessary information, the insurer may streamline the claims process, making it faster and more efficient.
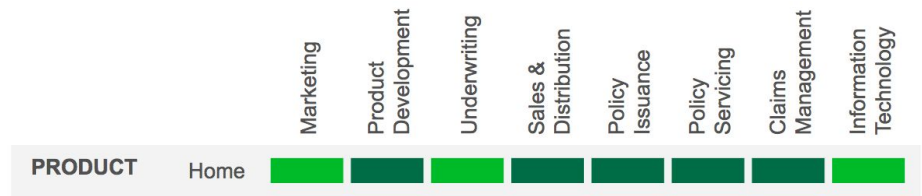
This solution could be a win-win situation, for both insurers and its clients. The first would have **potentially lower costs,** mainly due to two reasons: the decrease in claims frequency and the decrease on the average claims cost; while the later would see a r**eduction in its home insurance premium**, since it is considered safer.

It was already known that break-in and alarm systems decreased claims costs, such that many insurers already provide discounts in these situations (e.g. Tranquilidade provides 10% discount).

Now, according to a study from The Boston Consulting Group claims for insured homes could **drop by 40% to 60%** if all the latest technologies for water, fire and burglary alarms were adopted. Additionally, Canada's third largest bank Scotiabank, stated that clients could save between **10% to 30% on their energy bills.**

Nevertheless, its adoption has not yet become widespread, being most probably attributable to the equipment's elevated costs and risks associated with privacy breach.

**OPPORTUNITIES WITH THE USE OF IOT ALONG THE VALUE CHAIN**



| | | Marketing | Product Development | Underwriting | Sales & Distribution | Policy Issuance | Policy Servicing | Claims Management | Information Technology |
|---|---|---|---|---|---|---|---|---|---|
| **PRODUCT** | Home | Medium | High | Medium | High | High | High | High | Medium |

OPPORTUNITY: ■ High ■ Medium ■ Low

Source: McKinsey Insurance Practice

# INTERNATIONAL BENCHMARK

SEVERAL INSURERS HAVE ALREADY PARTNERED WITH IOT COMPANIES AND ARE PROVIDING THEIR CUSTOMERS INNOVATIVE SOLUTIONS, SUCH AS SMOKE AND WATER LEAKS DETECTORS, ASSOCIATED WITH THE HOME INSURANCE.

## AVIVA / canary / cocoon / LEAKBOT (UK)

- Package includes intrusion and water leaks detectors. All devices connect to a mobile App.
- *Home security Program* offers the equipment at no cost.
- In exchange the client signs up for a loyalty program for a certain number of years.

## Liberty Mutual INSURANCE / nest (US)

- Package includes smoke and water leak detectors. These devices are connected to a mobile App that emits a notification in case of emergency.
- *Smart Home Verified Discount Program*: Liberty Mutual offers discount on the home insurance premium up to 5% to customers who have Nest's package.
- The client lets the insurer access the data from these devices.

## ZPG / neos (UK)

- Package includes intrusion, smoke and water leaks detectors. These devices are connected to a mobile App that emits a notification in case of emergency.
- *Smarter Home Insurance Policy* offers the equipment at no cost and provides 24/7 assistance.
- In exchange the client signs up for a loyalty program, paying a higher premium for three years.

## Groupama / OCTO (IT)

- Package includes smoke, water leaks, electric breakdown and intrusion detectors. All devices connect to Octo's Homebox and to a Mobile App. The latter emits alerts in the event of an emergency.
- Groupama sells a home insurance bundled with the equipment, and offers 24/7 assistance.
- The client agrees to pay a higher premium for a certain number of years.

In order to understand better how IoT was being applied to home insurance, an international benchmark was performed. The main conclusion was that **all around the world, innovative solutions were already being used**, from intrusion detectors (e.g. security cameras and motion sensors) to smoke and water leaks detectors.

The analysed companies sold the equipment either through bundle or cross-sell. On the first option the insurer sells the devices together with the home insurance and in exchange the client pays a slightly higher annual premium during a predefined number of years. On the second option, the insurer sells the devices separately and offers a discount to customers that prove that the devices are active and running, allowing the insurer to access all the necessary data.

Lastly, energy saving solutions (e.g. smart plugs that allow customers to turn on/off devices by using their smartphone) did not appear to be adopted by insurers at an international level.

# NATIONAL BENCHMARK

PORTUGUESE INSURERS HAVE NOT YET JOINED FORCES WITH IOT COMPANIES IN ORDER TO DEVELOP ANY MAJOR SAFETY AND PREVENTION PRODUCT, THEREFORE, TRANQUILIDADE WOULD BE A FIRST MOVER IN THIS TYPE OF INITIATIVE.
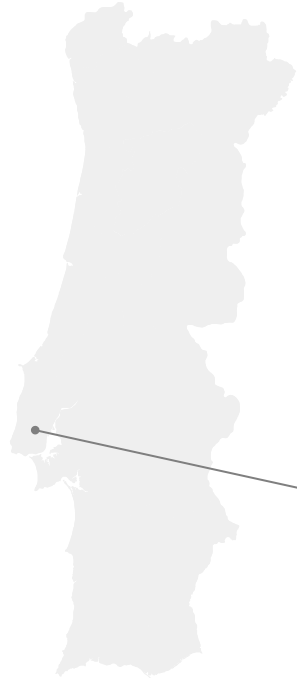
## AGEAS & PROSEGUR

**What is it about?:** The insurer and the alarm detection company engaged in a partnership that aims to provide premium discounts to customers based on the existence of intrusion devices. Such equipment would potentially prevent robbery and, therefore, claims could be avoided and money saved by the insurer.

**Enabler**: The customer purchases Prosegur's anti-theft equipment and installs them at home. After that, Ageas provides a discount up to 10% if the devices are indeed being used.

**Market response:** This product is targeted to consumers with a high income level due to the detectors elevated price. The market response is yet to be seen.

There are some examples of encouraging prevention and safety currently being done in the Portuguese market. Although partnerships between insurers and alarm companies are intuitively logic, since they align incentives between both, **there is currently only one solution like this available in the market**.. Even though most insurers do not have partnerships with specific security companies, they **already offer discounts to customers who acquire alarm systems**.

In the Portuguese market **there are not yet any insurance-related IoT initiatives** being implemented so far. While there are some firms who are developing Smart Home products and specialising in providing IoT solutions, insurers have not yet agreed to join forces.

Hence, the team believes that Tranquilidade can benefit from being a first mover in this market, as the firm can capitalise on unmet demand and increase profitability in the home insurance subsegment.

# AGENDA

# POTENTIAL PRODUCTS – CONNECTED HOME

THE GENERAL OFFER, IN TERMS OF IOT SOLUTIONS THAT CAN BE ASSOCIATED TO THE HOME INSURANCE, CONSISTS IN A SMART HOME SYSTEM COMPOSED BY DEVICES EITHER RELATED WITH SAFETY OR WITH CLAIMS PREVENTION.

| The question? | Which are the existent IoT solutions that can be associated with home insurance? |
|---|---|

After conducting a benchmark analysis, the team understood that the different telematic solutions available in the market - which can be associated with the home insurance - are relatively similar between them. T**he general offer consists in a variety of devices which are always connected to a control centre via wireless and to a smartphone App, which allows the customer to interact with the system and to receive alerts 24/7**. These devices are either related with safety or prevention of certain accidents, such as fires, floods and gas leaks. Another range of gadgets occasionally associated with this type of Smart Home systems is a set of devices, such as wireless switchers and smart outlets, which are not directly connected to safety or prevention but add value to the customer due to the comfort they deliver and in some cases the possibility of energy savings.

| **Alarms** and **sirens** | | **Smoke detectors** |
|---|---|---|
| **Surveillance cameras** | | **Gas leaks detectors** |
| **Motion sensors** | | **Floods detectors** |
| **Wireless switchers** | | **Smart outlets** |

In most cases, the regular cost structure of these types of systems is composed by a substantial **initial investment**, which accounts for the equipment's cost, plus a **monthly fee**, which represents the service cost of the Smart Home system.

**EQUIPMENT** COST + **SERVICE** COST

# AGENDA

# POTENTIAL PRODUCTS – HOME PACKAGES

AFTER UNDERSTANDING WHAT WAS AVAILABLE IN THE MARKET, THE TEAM STARTED TO IDEALISE A SPECIFIC PRODUCT FOR TRANQUILIDADE TO OFFER: THREE DIFFERENT PACKAGES, COMPOSED BY IOT DEVICES, THAT COULD BE ACQUIRED INDIVIDUALLY.

After understanding what was available in the market, in terms of IoT devices that could be associated with the home insurance, the team began to **idealise a specific product to be offered by Tranquilidade**. In order to serve the different customer needs, the team structured a **differentiated offer based on packages that could be purchased individually and would complement each other**. The acquisition of such packages would allow the customer to benefit from a **premium discount** in the Home insurance, which would be dependent on the type and number of packages acquired (since their potential impact on claims reduction would differ).

**Anti-Theft Pack**

- Alarm
- Sirens (interior and exterior)
- Motion sensor
- Surveillance camera

The Anti-Theft Pack would be composed by several devices which would have the final purpose of avoiding **intrusions** and **home thefts**, alerting the homeowner in such cases, and having a deterrent effect. It would also allow the customer to remotely **monitor** its own home.

**Prevention Pack**

- Smoke detector
- Water leakage detector
- Gas leakage detector

The Prevention Pack would have the final purpose of avoiding **fires**, **floods** and **gas leak** accidents. These would alert the homeowner in case of an emergency, allowing him to act on them in an early stage, which would reduce the potential damages.

The Anti-Theft and Prevention Packs would be related with increased **safety** and **prevention**, resulting in **potential claims reduction** for the insurer and in a premium discount for the customer.

**Eco-Savings Pack**

- Smart outlet
- Wireless switcher
- Smart bulb
- Temperature and humidity sensor

The Eco-Savings Pack would allow the customer to **control** and **monitor** its own **energy consumption** habits, besides delivering more comfort to his lifestyle, as these devices would be controlled remotely, through the smartphone App.

The Eco-Savings Pack would be mostly related with **energy savings**, **ecological housing** and, therefore, **social responsibility**. It would not have a direct benefit for the insurer in terms of claims reduction, but would be an added value to the customer.

# POTENTIAL SUPPLIERS – OVERVIEW

BASED ON THE RESEARCH AND BENCHMARK ANALYSIS, THE TEAM DEFINED EIGHT POTENTIAL SUPPLIERS THAT COULD OFFER THE DESIRED IOT SOLUTIONS FOR THE NEW HOME INSURANCE PRODUCT.

| The question? | Which Smart Home product providers can offer the desired Home IoT solutions? |
|---|---|

Based on the performed research and benchmark analysis, the team realised that there were many players specialised in home related IoT solutions, and therefore potentially capable of serving Tranquilidade's needs. Due to time constraints, it was decided to focus the analysis of potential suppliers on the firms that were identified during the benchmark, with proven experience dealing with insurance companies. Afterwards, the team proceeded to contact, both presencially and over the internet, **eight different Smart Home product providers** (listed below), making an extensive analysis of their offer, both in terms of product features and affordability.

| OCTO | Bclose | MEO | nest |
|---|---|---|---|
| Even though its core business is auto telematics, OCTO has recently bet on developing Smart Home devices and, in fact, it has already signed some partnerships with international insurers. | Bclose is a portuguese firm specialised in connected services, having a large portfolio of IoT solutions (Auto, Home, Health), but low experience with insurers. | In spite of being a telecom company, MEO has launched a new standard Smart Home pack of devices. The company expects to gain advantage from being the first one in the market. | The Google subsidiary's is focused on Smart Home solutions. In 2015, the company engaged in a partnership with Liberty Mutual Insurance in the USA market. |

| neos | LEAKBOT | cocoon | canary |
|---|---|---|---|
| Neos is a british startup specialised in Smart Home equipment. The company counts with a partnership with Munich Re in Germany and ZPL in UK territory. | The UK-based firm is most known for its high sensitive water detectors. The company has recently formalised a partnership with the insurer Aviva. | The UK-based company has been developing high sensitive products that detect subtle sounds and vibrations from activity in any room. The company has embarked in a partnership with Aviva as well. | The UK-based startup has been developing cutting edge home security cameras and have embraced a partnership with a giant insurer Aviva too. |

# POTENTIAL SUPPLIERS – ANALYSIS

AFTER EXCLUDING SEVERAL OF THE IDENTIFIED FIRMS, MOSTLY BECAUSE THEY WERE NOT ABLE TO OPERATE IN PORTUGAL, THE TEAM PROCEEDED TO AN ANALYSIS WITH THE THREE REMAINING POTENTIAL SUPPLIERS.

## PRELIMINARY SUPPLIER'S ANALYSIS

On a first approach, each and every supplier was contacted via email. However, more than half of them did not come through, as they **did not wish to provide their services in Portugal**, given their ambitions to focus on larger and more profitable markets.

Consequently, **the five Smart Home firms listed below declined the possibility of a future deal**.

(excluded)

## SECONDARY SUPPLIER'S ANALYSIS

With only three remaining options on the table, the team decided to look for additional alternatives. From that research, it was able to find DiO Smart Home appliances, but not able to establish contact, due to the firm's lack of responsiveness to emails or calls. Additionally, the team also contacted Securitas, a well known portuguese company, focused on security. Like Ageas, who had just recently pursued a partnership with Prosegur, the team thought there could be potential for a partnership between the anti-theft firm and Tranquilidade. However, after a first meeting, it was soon realised that the **high investment** and **maintenance costs** of the alarm equipment and the subdue product offering - lacking Smart Home devices such as smoke and gas ´ detectors - was an **impediment** to achieve the desired objectives, and therefore n**egotiations were terminated**.

(excluded)

## FINAL SUPPLIER'S ANALYSIS

With three remaining suppliers (OCTO Telematics, BClose and MEO), the team proceeded to the analysis of the Portuguese market in order to understand which product would be most valued by the customers and the underlying business model (discounts). **The final supplier's analysis was carried later, when there was a clearer and deeper understanding of the customer's preferences regarding IoT devices**. The mentioned analysis can be found in the Recommendations section.

# AGENDA

# MARKET RESEARCH

TO UNDERSTAND HOW THE PORTUGUESE MARKET WOULD RESPOND TO THE LAUNCH OF A NEW HOME INSURANCE IOT RELATED OFFER, THE TEAM CONDUCTED TWO FOCUS GROUPS AND ELABORATED AN ONLINE SURVEY.

| The question? | How will the portuguese customer respond to a new home Insurance IoT related offer? |
|---|---|

Similarly to what was done in the auto insurance, after completing the benchmark analysis on the available IoT solutions that could be associated with home insurance, a study on the market probable response was performed. The methodology consisted in a **qualitative** research, composed by two focus groups, and a **quantitative** research, by means of an online survey. The objectives of the conducted market research were: to evaluate the perception of the customers regarding their current insurance service; to study their openness to the different IoT solutions available as well as their willingness to pay; the minimum discounts considered valuable; and finally, the underlying product benefits that would ultimately lead customers to buy them.

## QUALITATIVE RESEARCH:

Analogously to what was performed in auto insurance, the team organised **two focus groups**, and conducted them in **two different areas**: Lisbon and Viseu. In this case, age was not deemed as an important criteria to divide the participants, since most people below 30 years old do not own a house. All participants were homeowners and had the respective insurance in their name.

### FOCUS GROUPS

| Location | Age Groups | Participants |
|---|---|---|
| Lisbon | 30 - 65 y.o. | 5 |
| Viseu | 30 - 65 y.o. | 9 |

### PARTICIPANTS DIVISION BY GENDER

71%

29%
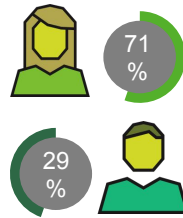
### FOCUS GROUPS SECTIONS

**1. The choice of home insurance** – introductory section to understand the current customer situation in terms of needs and how they were being met by their insurance service

**2. The New Home Insurance** – within which the idealised equipment packages were presented

**3. Discounts Models** – to study the openness to the suggested discounts on the home insurance premium

**4. Communication** – to study communication channels

# QUALITATIVE RESEARCH – MAIN CONCLUSIONS

THE PARTICIPANTS IDENTIFIED MORE BENEFITS IN THE ANTI-THEFT AND PREVENTION PACKAGES, AND AGREED TO THE PROPOSED DISCOUNTS. ADDITIONALLY, IT WAS MENTIONED THAT THE PACKS SHOULD HAVE MORE DEVICES TO SECURE BIGGER HOUSES.

**1. The Choice of Home Insurance:** To start off the focus group about Home Insurance, some general questions were asked in order to understand the mechanism of choice the customers go through when considering home insurance. It was possible to conclude that most of the **people signed up for the insurance when buying a house**, since it was a requirement to get a bank loan. The majority of the participants said they did not do any kind of market prospection, accepting the insurance suggested by their bank. Nevertheless, some people affirmed having researched several options available in the market, in order to choose the one that would better match their needs.

**2. The New Home Insurance:** The second section of the discussion started by asking the participants what the insurance of the future looked like to them and the main idea collected was the **desire for increased transparency in the insurer-insured relationship**. Afterwards, participants were presented with the idea of having an insurance that would not only help them solving the accidents or break-ins but also prevent them. The immediate reaction was very positive from every participant.

For the proposed packages, even though the **Anti-Theft Pack was well regarded** by the participants, most of them stated already having an alarm system in their homes while others showed some concern regarding their privacy, such as who would have access to the surveillance camera images. It was concluded that when communicating the offer, the insurer should be very clear on what information it would have access to. The Prevention Pack was clearly the preferred one, with only minor questions being raised about devices' sensitiveness. Regarding these two packages, everyone **agreed on the proposed price ranges** as well as the monthly service fee. Lastly, the Eco-Savings Pack was regarded as not attractive enough. Most of the participants stated they did not see any benefit in most of the included devices, and for that reason they would never buy it as a full pack. Nonetheless, it was suggested that these devices could be sold separately, as an add-on to the other packages.

One concern raised in the focus groups was the quantity of devices not being enough to give full-coverage to a house bigger than a 3 or 4 rooms apartment. This led us to **redesign the initially idealised packs,** so that Tranquilidade would have solutions that could fit any house. The team tested the identified business models found on the benchmark and concluded that people **would rather have premium discounts** than being offered the devices, which meant having to sign for a loyalty program.

**3. Discounts Model:** The discounts discussed in the focus group were **10% for either the Anti-Theft or the Prevention Pack,** and **20% in the event of buying bot**h of them. For the Eco-Savings Pack there would be no associated discount.

**4. Communication:** This section ended up not being relevant in terms of conclusions, as people suggested very different communication channels such as television and radio, not reaching a consensual answer.
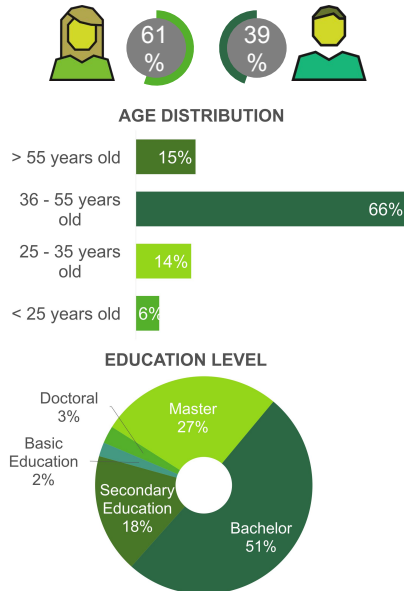
# QUANTITATIVE RESEARCH – SAMPLE CHARACTERISATION

THE QUANTITATIVE RESEARCH METHOD CHOSEN WAS AN ONLINE SURVEY TO WHICH IT WAS POSSIBLE TO GATHER 368 ANSWERS. SAMPLE CONCENTRATED IN THE 36 TO 55 YEARS AGE GROUP , WITH HIGH EDUCATION AND LIVING AROUND SOME LARGE CITIES.
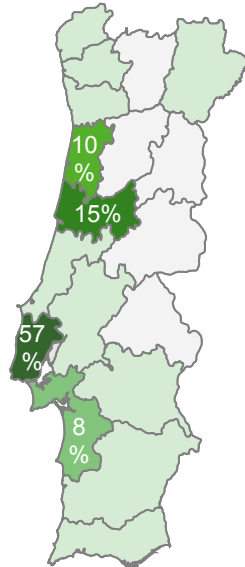
## QUANTITATIVE RESEARCH:

The quantitative research consisted in an **online distributed survey**. The team gathered **368 answers** in total, from which 70% of the respondents had Home insurance. In parallel with the survey for auto insurance, only 10% of the people who answered they did not have insurance proceeded to the following questions, in order to avoid getting a biased sample of people with no experience in insurance services.

## CHARACTERISATION OF THE SAMPLE

61%   39%

### AGE DISTRIBUTION

- > 55 years old — 15%
- 36 - 55 years old — 66%
- 25 - 35 years old — 14%
- < 25 years old — 6%

### EDUCATION LEVEL

- Doctoral 3%
- Basic Education 2%
- Master 27%
- Secondary Education 18%
- Bachelor 51%

**GEOGRAPHIC DISTRIBUTION**

10%
15%
57%
8%

The sample collected was mainly **representative of the age group of 36 to 55 years old**, with the remaining groups altogether amounting for 44% of the respondents. In terms of gender representation, women stood out, summing up to 61% of the total answers.

Similarly to the survey about the auto insurance, in geographical terms **Lisbon** was by far the most represented district, followed by Coimbra and Aveiro. The team was unable to collect answers from 5 districts and from both Madeira and Azores islands.

Lastly, regarding education level, **most of the respondents had a university degree** (78%), which might indicate the sample is relatively biased in this parameter. However, considering that education level may serve as a proxy for the level of income, it might come in the team's advantage since the presented IoT solution requires a significant amount of money, both in terms of investment and maintenance.

# QUANTITATIVE RESEARCH – MAIN CONCLUSIONS

THE QUANTITATIVE RESEARCH LED TO THE CONCLUSION THAT THE ANTI-THEFT AND PREVENTION PACKS WERE THE ONES THAT GENERATED MORE INTEREST. CUSTOMERS WOULD BE SATISFIED WITH A 10% PREMIUM DISCOUNT, FOR EACH ONE OF THE PACKS.

### 1. General Questions

Similarly to the Auto Insurance survey, the Home Insurance questionnaire starts off with general questions about the current insurance the respondent has. In terms of type of insurance, most of the respondents (69%) have Dwelling and Personal Property coverages while 26% only have Dwelling coverage and just 5% have Personal Property coverage. **The majority of people pay an average annual premium between 100€ and 250€**, with 65% of the sample paying less than 250€.

### 2. Willingness to Buy the Packages

In the survey, the same 3 packages that were presented in the focus groups were tested. Starting with the **Anti-Theft Pack**, **40% of the respondents demonstrated interest** in buying either the whole package or some of its devices. From the total sample, 15% would buy the full package for 250€. Among the people who said they would like to buy only some of the devices and not he whole pack the most preferred were the video cameras, door and window opening detectors and motion sensors. The main reasons pointed out by the respondents who answered they were not interested in this pack were that either they already had most of the anti-theft devices in their home or they lived in a secured condominium.

Regarding the **Prevention Pack**, **50% of the respondents showed interest in it**, being 20% of the total sample willing to buy the full package for 150€. The smoke detector and gas leakage detector were identified as favorites for the respondents who would like to buy only some of the devices.

Lastly, for the **Eco-Savings Pack**, there were **only 14% of people interested** in buying the full package for the proposed price of 160€. The most commonly chosen reason for not finding this package appealing was the belief that these devices would not bring any added value in terms of energy consumption monitoring and savings. Nevertheless, 21% of the people would like to buy some of the devices included in the pack. The most chosen ones, summing 70% of the choices, were the smart bulb and the smart plug.

These results led to the conclusion that the **Anti-Theft and the Prevention Packs should be kept**, with some minor changes in terms of quantity of devices, given the insights gathered in the focus groups and the online survey. However, the **Eco-Savings Pack did not seem to have high acceptance** among the respondents.

### 3. Discounts Model

The last part of the survey consisted in analysing the satisfaction of the customers with the proposed discounts in the insurance premium. Again, the discounts only applied to the Anti-Theft and Prevention Packs, with the discounts tested being 10% for one full package and 20% for the acquisition of two packs. Overall, **79% of the respondents stated they would be satisfied with these discounts**.

# AGENDA

# TARGET CUSTOMER

THE AUTO INSURANCE PRODUCT WILL BE MADE AVAILABLE TO THE MASS MARKET, AS IT WILL REQUIRE A HIGH INITIAL INVESTMENT. STILL, YOUNG DRIVERS ARE EXPECTED TO BE THE MOSTLY INTERESTED, SO COMMUNICATION SHOULD BE TARGETED AT THEM.

After conducting an extensive analysis on potential products, suppliers and market studies (both qualitative and quantitative), the team concluded that the standalone mobile App was the best option to make the existing offer more tangible and adapted to each customer. The company's **initial objective** was to have an offer targeted only at the **high-value segment**, the Top Clients, within both the individual and the collective customer segments. Even though the App has **no investment costs** associated **to the client**, the **initial investment** of its development for the company is considered to be **high** with **low to nonexistent variable costs** per customer. Taking all of these into account, the team recommends that the new auto insurance product should be **directed to the mass market**, benefiting from potential **economies of scale** with a higher number of clients.

The expected number of App users was estimated as the sum of the company's current auto insurance customers and new clients, that would be attracted by Tranquilidade's new product. The estimation of current customers that would download the App, associating it with their insurance policy, was derived from a **penetration rate** which was applied to the auto insurance customer base. This rate was calculated based on several metrics, namely the pre-requisite of having a smartphone, awareness rate, interest on the App and user's retention rate. For the new clients, the same method was used, with the additional metrics of not being a current auto insurance customer at the company (which corresponded to 81% of the total auto insurance market since Tranquilidade held a 19% market share) and the willingness to change from the prior policy at another insurance company to this new one offered by Tranquilidade.

By the end of 2017 the company had slightly over **583,000 auto insurance clients**. From that client base, it was assumed that under the most likely scenario, 1.34% would enroll in the new app-oriented auto insurance policy, which corresponds to almost 8,000 clients. Moreover, according to the Steering Committee, the company generally captures 20% new clients every year (i.e. the ratio between new and old customers is, on average, 20%). Based on the metrics discussed above, the team estimated the firm would be able to attract nearly 2,500 new clients on top of the usual increment of 20%, just due to this new offering. Concluding, the total **number of expected App users** is approximately **10,000**.

| **COMMUNICATION TARGET** | Despite the fact that this is a solution **available to the mass market**, the company should focus its **promotion and communication** efforts **in the young drivers' segment**. Young drivers exhibit a high variance in terms of risk, being their average risk relatively high. Therefore, to protected themselves insurance companies charge a higher premium to these segment. By having a mobile app with gamification, discounts and rewards that depend on the driving behaviour, it will be attractive mainly to the good young drivers, who have overpriced insurance policies. These clients are the ones that represent the most growth opportunity within the company and by attracting them at the young stage, the company can build a reputation that will make them generate more business. |
|---|---|

# POSITIONING

THE NEW AUTO INSURANCE SOLUTION WITH IOT WILL FOLLOW A COST LEADERSHIP STRATEGY, POSITIONING ITSELF AS THE MOST PRICE-COMPETITIVE IN THE INDUSTRY, ESPECIALLY AMONG THE YOUNG DRIVERS SEGMENT.

Positioning can be defined as "the act of designing the company's offering and image to occupy a distinctive place in the mind of the target market" (Philip Kotler). A successful positioning is closely related to the concept of perceived value by the customer and to define the positioning a product or brand should follow, it is important to analyse four different parameters:

### FRAME OF REFERENCE

The frame of reference corresponds to the **evaluation criteria** used by customers to make a better understanding of a company's services. The **benefits sought** by the consumers when considering Tranquilidade's new offer might be the **price customisation** and the **dynamic gamification** experience, which are, at some extent, already offered by some other entities in the market. This will be the frame of reference consumers will use when thinking about Tranquilidade as an insurance provider.

### VALUE PROPOSITION

The **value proposition** of the association of IoT with the Auto Insurance lies mostly in the **price customisation** that is possible to achieve: the good drivers may have access to lower premium prices through discounts and rewards. Also, by means of the score and driving tips, these drivers have have an incentive to increase road **safety**. Lastly, the **transparency** and **tangibility** as well as the gamification component, provides the customer with a more dynamic insurance experience.

### POINTS OF PARITY

The points of parity correspond to the characteristics that make one brand a legitimate competitor in the industry. Regarding these, Tranquilidade's new product **resembles** some its competitors' offerings, reflecting the attempt to turn the company into a more **customer-centric** entity, with **prices that are personalised** to each and every customer.

### POINTS OF DIFFERENCE

The team believes that Tranquilidade's main point of differentiation regarding its competitors is that it will offer both **discounts and rewards** to the good drivers. At the moment, in the Portuguese market, the existing players who have usage-based-insurance offerings only offer either a premium discount or periodic rewards.

Taking all of these into consideration, the company should follow a **cost leadership strategy** for this new product, positioning itself in the industry as the most competitive in terms of price, by introducing discounts and rewards for good drivers. This positioning will allow Tranquilidade to achieve a **competitive advantage** in the insurance market, especially among the young drivers' segment.

**POSITIONING STATEMENT**

"For the good young drivers, who own a smartphone and have overpriced insurance policies, Tranquilidade offers the possibility of having a transparent auto insurance adapted to their driving behaviour, awarding them with discounts and rewards"

# AGENDA

AFTER CONDUCTING IN-DEPTH MEETINGS WITH THE REMAINING FOUR SUPPLIERS, A LIST OF FIVE KEY FACTORS WAS DEFINED IN ORDER TO ASSESS THE ATTRACTIVENESS OF EACH SUPPLIER.

With four remaining suppliers, a final analysis was conducted in order to understand which one presented itself as the best one for the company's needs and restrictions. This analysis evaluated the advantages of choosing a supplier through five different criteria: **Cost Efficiency** - Costs of developing and customising the app; **Market Experience** - Number of projects carried on for insurers; **User Base Capacity** - Capacity to build an app available for millions of customers and to manage huge quantities of data; **App Integration** - Possibility of integrating the supplier's app into Tranquilidade's existing app; **Telematic Enablers** - Existence of different telematic solutions (App; App+Smart-Tag; App+OBD, Black Box).

| | **OCTO** | **drivit** | **Sentilant** | **CEABS** |
|---|---|---|---|---|
| **COST EFFICIENCY** | **Low** Set-up cost: ~92K Annual Variable Cost: ~20€/user (if users exceed 5K) (no annual service cost) | **High** Set-up cost: ~50K€ Annual Service cost: 60K€ (no annual variable cost) | **Very High** Set-up cost: ~38K€ Annual Service Cost: ~2K€ (no annual variable cost) | **Medium** Set-up cost: ~55K€ Annual Variable cost: ~14€/user (if users exceed 3K) (no annual service cost) |
| **MARKET EXPERIENCE** | **Very High** - Projects launched during 15 years in different countries | **Low** - No implemented projects with insurers | **Medium** - Project "Hit the Road!" with Liberty, in Portugal | **Medium** - Pilot projects developed at international level |
| **USER BASE CAPACITY** | **High** - The high variable cost per user implies that the supplier has an incentive to support more users and being capable of managing huge quantities of data (also has already 4M connected cars) | **Medium** - No annual variable cost per user may represent lack of incentive to grow customer base but annual service cost is also medium/high | **Medium** - No variable cost per user may represent a lack of incentive to maintain and grow customer base, yet there is an annual service cost | **High** - The high variable cost per user implies that the supplier has an incentive of having more users and so capable of managing huge quantities of data |
| **APP INTEGRATION** | **Not possible** | **Possible** | **Possible** | **Not possible** |
| **TELEMATIC ENABLERS** | App; App+Smart-Tag; App+OBD; Black Box | App | App | App; App+Smart-Tag; App+OBD |

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# PRODUCT – SUPPLIER RECOMMENDATION

THE TEAM RECOMMENDS SENTILANT AS THE TELEMATICS SUPPLIER FOR THE AUTO INSURANCE PRODUCT. IT IS A PORTUGUESE COMPANY THAT ALREADY DEVELOPED A SIMILAR SOLUTION, LIBERTY'S SMARTPHONE APP "HIT THE ROAD!".

The team's recommendation - in terms of a supplier that can provide the best telematic solution for the Auto insurance product, taking into account the company's needs as well as the cost structure of all the assessed options - **is to choose Sentilant as supplier**.



Sentilant already has a **considerable experience** in the Portuguese insurance market, since they have been working as the software provider of smartphone App with relatively similar characteristics for a renowned insurance company, Liberty Seguros, under the name "Hit the Road!".

After an extensive period of meetings and negotiations with all the different suppliers, Sentilant's offer remained the **most attractive** one in terms of cost structure, being one of the few suppliers that **do not charge variable costs per customer**. Its cost structure is mainly composed by an **initial set-up cost**, related with the development of the App itself, and by a **small annual maintenance cost**. This yearly service cost may be structured in a way such that incentives between the company and the supplier are aligned, regarding maintenance and customer capacity.

This supplier also offers a great **flexibility** in the customisation of the App, which can be fully **integrated** into the already existing company App, fulfilling completely the needs and preferences of the client. Most of the other potential suppliers could not deliver this aspect.

# PRODUCT – SMARTPHONE APP

THE TEAM RECOMMENDS A SMARTPHONE APP AS AN INITIATIVE TO BE ASSOCIATED WITH THE AUTO INSURANCE PRODUCT. THIS APP WILL BE ABLE TO EVALUATE THE USER'S DRIVING BEHAVIOUR, ALLOWING HIM TO ACHIEVE POTENTIAL DISCOUNTS AND REWARDS.

The team's recommendation in terms of an IoT solution which can be associated with the Auto Insurance product is a **smartphone App that evaluates the user's driving habits and behaviour**, based on parameters such as acceleration, speed, sudden braking, route zones, time of day, trips duration, distractions with mobile, among others. These parameters allow for the attribution of a **score** in different categories such as 'Speed' and 'Aggressiveness'. Each trip's score will then be calculated based on the average of those category scores. This allows the user to know in which areas he is failing the most, so that he can improve and achieve a better overall result. For this purpose, the App will also give the user **driving feedback** and tips. The **final score** for the month is a **weighted average of the achieved scores and the kilometres driven on each trip**. The aim is to integrate the App in the company's already existing one, in order to make the process faster and more efficient to the user and also to have all the current digital offers in the same platform, facilitating future promotions.

This smartphone App **will be open to everyone**, being a Tranquilidade customer or not. A current Tranquilidade customer will have immediate access to the App and to the potential premium discounts and rewards. While a prospect (that is not a Tranquilidade client) will be able to download the App and use it, but will not receive the premium discounts or rewards. He will only be told how much he could have already won, encouraging him to switch insurance company.

## DISCOUNTS AND REWARDS

The App users **who get positive results in the final month's score will be rewarded with premium discounts and occasional rewards**. The scores range from 0 to 100, with four driving levels. The highest level is for excellent drivers, who will be given a 15% premium discount while the lowest is for bad drivers who are not entitled to any discount. The discounts will be attributed monthly and will be accumulated in the form of credit until the renewal date. For instance, consider a driver that still has 10 months until the policy renewal date and pays an annual premium of 240€. In his first month of trying the app he is ranked as excellent driver, meaning that, for that month he is entitled to the maximum discount (15%), hence, being his monthly premium 20€ (240€/12 months), the discount applied in that month is 3€ (20 €*15%). This reward/amount of money will be credited in his account and the same logic will apply for the other 9 months. Thus, in the renewal date, the consumer cashes out the accumulated discounts from every month. Additionally, **the company may opt to give occasional rewards**, on a weekly or monthly basis, based on the score of specific categories instead of the final score. An example would be to offer a fuel discount to be used on Galp, for drivers who scored above 90 on speeding during that week. The purpose of these rewards would be to create additional **customer engagement** during the entire year, given that the policy discount is only used at renewal. To provide these discounts, Tranquilidade could make use of its extensive network of Europ Assistance at no cost or incur in new partnerships with incremental costs.

# PRICE

IN TERMS OF PRICE, THE SMARTPHONE APP WILL BE FREE OF CHARGE TO DOWNLOAD AND IT WILL OFFER DISCOUNTS UP TO 15% BASED ON THE OBTAINED CATEGORY AND SCORE.

As aforementioned, the mobile App to analyse the drivers' behaviour will be available to everyone who wishes to download it and test it. Thus, t**he mobile app itself will be free of charge** to the customer. Although, in order to understand the pricing strategy, when associating the smartphone App with the insurance premium, it is important to take in consideration the costs the company will incur and the pricing objectives.

## 1. DEFINITION OF COSTS

In terms of costs that Tranquilidade will incur in order to launch this solution to the market, there will be the **software development** of the mobile application, as well as a **yearly fee** for data management and storage.

Moreover, the marketing costs associated with promoting the new solution can also be considered.

The company will **not have any distribution costs**, as the intermediaries will present this solution to potential clients as a way of adding value to the client and increase customer satisfaction.

## 2. PRICING OBJECTIVES

The pricing objectives take into account the overall objectives of the company when associating IoT with the auto insurance:

- Reduce the claims' costs up to 20%
- Become more price-competitive

## 3. PRICING STRATEGY

To achieve the stated objectives, Tranquilidade will follow a **market penetration pricing strategy**, in order to gain market share among the target set for this product.

The App would not have any associated download cost and everyone would be able to use it, i.e. clients and non clients. In exchange, and because claims costs are expected to on average decline for those clients who use the telematics app, they will get a discount or periodic rewards. In terms of value, the sum of these will correspond to the following percentages:

| DRIVING LEVEL (SCORE) | PREMIUM DISCOUNT |
|---|---|
| **Excellent Driver** (91-100) | 15% |
| **Good Driver** (76-90) | 10% |
| **Average** Driver (61-75) | 5% |
| **Bad** Driver (0-60) | 0% |

Although the discounts on the premium may not be very significant for the low-end customers, with the rewards the company is able make offers to the client that have a higher perceived value than its actual costs.

IN THE SHORT RUN, THE DISTRIBUTION STRATEGY WILL RELY ON A LARGE NETWORK OF INSURANCE INTERMEDIARIES. WHEREAS IN THE MEDIUM TERM, WHEN TELEMATIC SOLUTIONS HAVE BECOME MORE WIDESPREAD, INTERNET WILL ALSO BE A MAIN CHANNEL.

To make the new auto insurance product available for customers, an **effective distribution strategy** must be set. The two main distribution channels considered were **insurance intermediaries** and **direct sale**. Insurance intermediaries, which account for more than 90% of the policies sold last year, are the primary driver of Non-Life insurance sales. During the **short run**, these **intermediaries are expected to boost sales** of the auto insurance policy. Whereas in the **medium term**, t**he internet will also be used as a main distribution channel**.

**INTERMEDIARIES**: In the Non-Life segment, insurance intermediaries are divided into tied intermediaries (*mediadores de seguros ligados*), agents (*agentes de seguros*), brokers (*corretores de seguros*), reinsurance brokers (*mediadores de resseguro*), banks and post offices (*CTT correios*). In 2016, they were responsible for 91.6% of the whole Non-Life market sales, thus being the strongest and most effective distribution channel. They may be individuals or organisations and are obliged by law to provide customers with the most suitable insurance product based on their needs and preferences. In the whole insurer's chain, intermediaries are considered the closest and most trusted entity to consumers.

Intermediaries work on commission, i.e. they earn a percentage of a newly signed insurance policy and also a percentage of each premium paid by current customers. Therefore, they are not only incentivised to acquire new customers but also to maintain their portfolio.
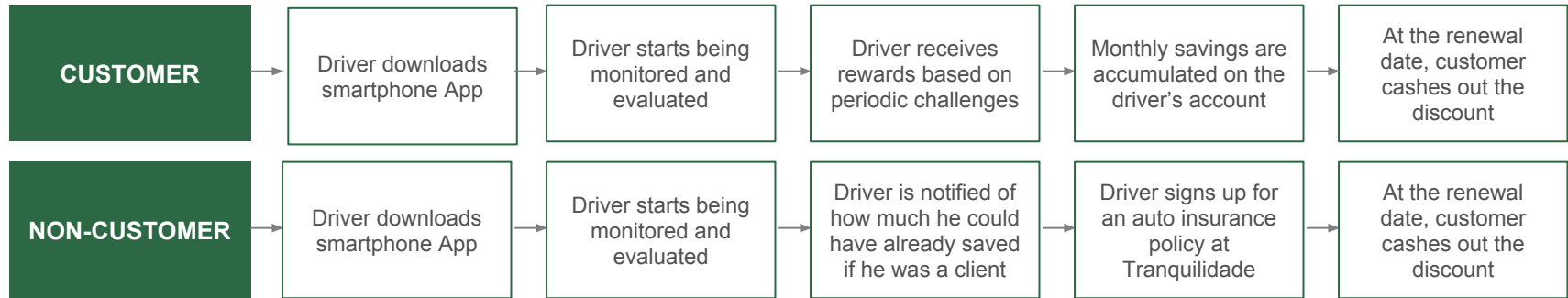
In this context, it would be in there advantage, to promote this new auto insurance in order to add value to their existing customers and to attract new ones. Good drivers, especially within the young segment, are likely to be interested in this new solution and allow to be monitored in order to pay a discounted premium price or to receive periodic rewards.

**DIRECT SALE**: Direct sales channels can be split into insurance branches (*balcões*), internet and telephone. It is considered a less customer-oriented channel, accounting for 7.9% of the whole Non-Life market sales in 2016. With the current diversification and customisation of insurance products, where customers usually seek information and help, direct sales are seen as a secondary channel. However, according to an American study (LIMRA Life Happens), there has been a growing trend of consumers who visit Life insurance company websites, seek information and then proceed to online purchase. It is fair to believe that in the near future this trend will also apply to the Non-Life market. Hence, and since telematics are not yet a well-known solution in the Portuguese market as concluded from the market research, it is believed that once a certain sales volume is surpassed through intermediaries, the direct sale will play a bigger role in boosting sales.

# PROCESS – FLOW OF ACTIVITIES

THE APP WILL START MONITORING THE CUSTOMER'S DRIVING BEHAVIOUR FROM THE MOMENT OF THE FIRST LOGIN. STILL, THE COMPANY WILL DEAL WITH THE LESS POSSIBLE DATA, TO PRESERVE THE CLIENT'S PRIVACY AND TO AVOID DATA PROCESSING.

Customers and non-customers will start being monitored and have their driving behaviours evaluated **from the moment of the first login**, after having installed the app. A score will be attributed to the drivers at the end of each trip, being the final score for the month a weighted average of the achieved scores and the kilometres driven on each trip. Based on that final score, t**he driver will be notified every month of how much he has already saved**, or could have saved if the driver is not a current customer. In order to be eligible to receive a discount, the user not only needs to achieve a certain score but also drive at least 5 trips and 250 kilometres per month. **At the policy renewal, all the accumulated discounts can then be used by the customer.**

| **CUSTOMER** | Driver downloads smartphone App | → | Driver starts being monitored and evaluated | → | Driver receives rewards based on periodic challenges | → | Monthly savings are accumulated on the driver's account | → | At the renewal date, customer cashes out the discount |
|---|---|---|---|---|---|---|---|---|---|

| **NON-CUSTOMER** | Driver downloads smartphone App | → | Driver starts being monitored and evaluated | → | Driver is notified of how much he could have already saved if he was a client | → | Driver signs up for an auto insurance policy at Tranquilidade | → | At the renewal date, customer cashes out the discount |
|---|---|---|---|---|---|---|---|---|---|

## DATA PROCESS AND SHARING

Nowadays data sharing is a sensitive issue for many people, especially with the new General Data Protection Regulation (GDPR). Hence, Tranquilidade will ideally **deal with the less possible data so that customers do not feel their privacy is being breached or even that their data is being used for non intended purposes** (e.g. sold to third parties). Therefore, the raw data, collected by smartphone App, which includes sensitive information such as geolocation, will first be processed and analysed at the supplier's data centre. **Tranquilidade will only receive the analysed information**, which will consist of the final driving score as well as the scores obtained on every sub criteria (e.g. speeding). Based on the aforementioned information, the company will not only be able to offer the promised discounts and rewards but improve its risk assessment models.

# PROMOTION – COMMUNICATIONS PLAN

A COMMUNICATION PLAN FOR THE NEW INITIATIVE WAS DEVELOPED, HAVING FOUR MAIN COMPONENTS AND WITH THE OBJECTIVES OF CHANGING CONSUMER PERCEPTION TOWARDS THE BRAND AND COMMUNICATING A MORE ADJUSTED AUTO INSURANCE.

Regarding promotion, the team developed a communications plan for the initiative with the main objectives of associating the brand to **innovation** and **social responsibility** and communicating the possibility of a **more transparent and adequate** auto insurance to each customer. The target audience of this communications plan was defined as the *"segment of youngsters from 18 to 35 years old, who have a car, smartphone and an over-priced Auto insurance"*. The plan main message should have its focus in the benefit of the product - an appropriate Auto insurance, which may give premium discounts - and in the consequent emotions that the customer may feel when using the product, such as **transparency** and a **sense of savings**. The budget for this communications plan was set by Tranquilidade, with a maximum limit of **10,000€**. Despite this relatively small budget, the company can still use and take advantage of its own internal means of communication, which do not represent an incremental cost. This campaign will have 4 major components:

**Targeted Ads** - Sharing of teasers in Facebook and Instagram, through **targeted ads** - which can be effectively directed to the desired audience - with the aim of encouraging the download of the App. It was planned to last for 2 months, with an expenditure of **4,000€**: daily reach of 30,000 views and total reach of 2M views, with 170 daily clicks and and 10,000 clicks in the total period (Facebook Ads Manager simulator predictions).

**Instagram giveaway** - A competition to promote the App in which the winners would win a trip for 2 people to an attractive destination. Giveaway rules: user must follow the company's Instagram page, identify 3 friend in the contest publication and download the App, creating a personal account. With an expenditure of **2,000€**, the company may create awareness for the new initiative and increase the number of App downloads.

**Guerrilla marketing** - promotional actions in universities across the country, in order to spread the new product and to encourage young drivers to download the App and to purchase an Auto insurance on their behalf, as they can save on the premium and receive rewards. With **4,000€** the company achieves a more personal contact with the prospects and a chance to explain face-to-face the App and its features.

**Internal Communications -** The company can also leverage and take advantage of its own **internal means of communication**, which will not represent an incremental cost, such as the intermediaries sales force, letters and email-marketing to current customers. This component of the communication can achieve powerful results in terms of awareness as the company has more than 800,000 customers with Auto insurance policies who can be reached.

# AGENDA

# FINANCIALS – BUSINESS CASE

IN ORDER TO UNDERSTAND THE POTENTIAL IMPACT ON THE COMPANY'S P&L OF LAUNCHING AN APP-ORIENTED AUTO INSURANCE, A BUSINESS CASE WAS BUILT. IT IS COMPOSED BY THREE DIFFERENT SCENARIOS AND ALL THE METRICS DEEMED NECESSARY.

In order to understand the financial impact of the new auto insurance policy based on the App's driving score, the team performed a business case for a **twelve-month period**, with all the metrics deemed necessary. Furthermore, **three different scenarios** were built, to provide additional insights on possible extreme outcomes and associated risks.

For all scenarios, the **first parameter** to be estimated was the **expected number of users**, which corresponded to the sum of the company's current auto insurance customers and new clients, that would be attracted by Tranquilidade's new auto insurance product.

**The second** estimated parameter was the **average percentage reduction in claims' costs**, calculated based on the users improved driving behaviour, potentiated from the App's feedback and the discount incentive. For this metric, the team divided its analysis in current and new customers. The underlying logic is that new clients, who sign up just because of the new auto insurance policy at Tranquilidade, are expected to be lower risk drivers and therefore will, on average, improve less than the current clients.

**Lastly**, the **average percentage discount given**, was obtained based on the estimation of people that would be eligible for a discount and the associated value (i.e. it was calculated as a weighted average of the number of users expected at each category and the associated discount). The aforementioned discount includes both the premium discount and any potential rewards. Once again, a division was made between current and new customers, under the same logic as before. Since new customers are expected to be lower risks for the company then they are expected to, on average, have a higher score and be rewarded for it.

| CATEGORY | CURRENT CUSTOMERS | NEW CUSTOMERS | DISCOUNTS |
|---|---|---|---|
| Bad Driver (0-61) | 40% | 25% | 0% |
| Average Driver (61-75) | 35% | 40% | 5% |
| Good Driver (76-90) | 15% | 20% | 10% |
| Excellent Driver (91-100) | 10% | 15% | 15% |

| DRIVING BEHAVIOUR IMPROVEMENT | CURRENT CUSTOMERS | NEW CUSTOMERS | REDUCTION IN CLAIMS' COSTS |
|---|---|---|---|
| No Improvement | 10% | 30% | 0% |
| Slight Improvement | 60% | 60% | 7,50% |
| Significant Improvement | 30% | 10% | 15% |

# FINANCIALS – KEY METRICS

IN THE MOST LIKELY SCENARIO, THE BUSINESS CASE PREDICTS OVER 10,000 APP USERS, AN AVERAGE CLAIMS' COSTS REDUCTION OF APPROXIMATELY 8% AND AN AVERAGE GIVEN DISCOUNT SLIGHTLY ABOVE 5%.

Focusing on the most likely scenario, the total **expected buyers** was approximately **10,000**, from which **75% were current** auto insurance clients and the remaining **25%** being **new ones**. In terms of expected **average reduction in claims' cost**, the figure stood at around **8%**, significatively less than predicted by the analysed **studies**, which ranged from **15% to 30%**. After several meetings with the Steering Committee regarding this matter, and particularly with the Non-Life Director Dr. João Barata, the team decided to use a **conservative** approach on this matter. It is important to clarify that this reduction does not apply directly to the insurance premium, but rather on the loss ratio (i.e. claims costs over written gross premium) which was 85%, therefore decreasing its potential impact. Finally, the estimated **average discount given** was slightly over **5%**, reflecting the expected distribution of drivers over the four different score categories and associated discount.

When compared to more extreme scenarios, namely the pessimistic scenario, it might seem counterintuitive that the average percentage reduction in claims' costs is higher and the average percentage discount is lower. However, this is due to the higher proportion of new customers in the most likely scenario. As it was already stated, **new customers will be better drivers and, hence, the possibility to reduce claims' costs is lower**.

That is why the **weighted average of claims' cost reduction**, in percentage terms, is **lower** for more **favourable scenarios**.

The same logic applies to the average discount given, in percentage terms. As **new customer**s will be higher in proportion, and they will be more prone to receive discounts, it will **shift** the average **percentage discount up**.

It is important to reinforce that during every step of the process that led to the construction of this business case the team **validated all** the **parameters** and associated values **with** the **Steering Committee**.

| PARAMETERS | PESSIMISTIC SCENARIO | MOST LIKELY SCENARIO | OPTIMISTIC SCENARIO |
|---|---|---|---|
| Total Users | 2,800 | 10,476 | 29,939 |
| Current clients | 2,187 | 7,837 | 19,679 |
| New clientes | 614 | 2,639 | 10,260 |
| Average % reduction in claims' costs | 8.34% | 8.24% | 7.97% |
| Average % discount given | 5.08% | 5.13% | 5.26% |

# FINANCIALS – IMPACT ON THE P&L

IN THE MOST LIKELY SCENARIO, THE COMPANY IS EXPECTED TO MAKE AN YEARLY PROFIT OF NEARLY 26,000€ WITH THE NEW AUTO INSURANCE SOLUTION, POTENTIATED BY THE INCOME GENERATED WITH NEW CLIENTS AND CLAIMS' COSTS REDUCTION.

In terms of P&L, **six factors were forecasted,** being most of them derived from the key metrics previously discussed. The first was the **margin**, in euros, achieved with new clients, which was calculated as the product of the average auto insurance premium (approximately 200€) times the profit margin (roughly 7%) times the number of new clients. Even though the average premium and margin differ between new and current customers (being the new policies relatively cheaper with a lower margin), the team used the average premium and margin of the existing customers for all computations. This decision was taken by the Steering Committee, as new policies were less profitable only for a short period of time before being adjusted. Regarding the reduction in **claims' costs**, it was obtained as the product of the estimated percentage reduction times the loss ratio times the average premium. In matters of **discounts given**, it was obtained as the product between the average percentage discount and the average premium. Finally, the **marketing and App-related costs** were the final values negotiated with the Marketing Department and with the telematics supplier Sentilant, respectively. These values are constant for the three analysed scenarios, standing at 10,000€ and nearly 40,000€ respectively.

Focusing on the **most likely scenario**, the expected impact on the company's **profit** from the new auto insurance solution is nearly **26,000€.** The biggest positive contribution comes from the reduction in claims' costs (over 144,000€), yet, almost two thirds of this effect are nullified by the given discounts (approximately 106,000€). Additionally, the company stands to make a profit of almost 37,000€ with the new clients that previously were not Tranquilidade auto insurance customers.

In the pessimistic and optimistic scenarios the company stands to make a loss of almost 30,000€ and a profit of 182,000€, respectively. These values have a wide difference, which is **mostly attributable to the difference in expected new customers**. For the pessimistic scenario this figure is about 600 people while in the optimistic it raises to almost 20,000.

| PROFIT & LOSS | PESSIMISTIC SCENARIO | MOST LIKELY SCENARIO | OPTIMISTIC SCENARIO |
|---|---|---|---|
| Margin with new clients (€) | 8,580€ | 36,901€ | 143,457€ |
| Reduction in claims' costs | 38,993€ | 144,154€ | 398,375€ |
| Discounts given | - 27,977€ | - 105,678€ | - 310,039€ |
| Marketing | - 10,000€ | - 10,000€ | - 10,000€ |
| Set-up cost | - 37,515€ | - 37,515€ | - 37,515€ |
| Maintenance cost | - 2,214€ | - 2,214€ | - 2,214€ |
| **Net income** | **-30,133€** | **25,648€** | **182,065€** |

# AGENDA

# VALUE CHAIN – IMPACT

As initially studied, when analysing the new digitalisation trend and associated industry disruption, the new IoT solutions will have different potential impact across the insurer's value chain. In Tranquilidade's case and for this specific product, the smartphone App, the most likely affected departments will be the **product development**, the **marketing** and **sales** and finally the **claims** and **underwriting** processing.

| **PRODUCT DEVELOPMENT DEPARTMENT** | This new solution will collect and analyse more information about the current and prospect clients. Using the new data, the company will be able to offer new personalised products to their customers based on their specific needs. By i**ncreasing its customer offerings** and **creating diversified products**, the company is likely to sustain its competitive advantage relatively to its competitors. |
|---|---|
| **MARKETING & SALES DEPARTMENT** | The smartphone App is expected to reinforce the company's strategy of innovation and social responsibility, **increasing its brand awareness**. Additionally, it is expected to **improve customer relations** and boost **retention rate**, as a consequence of a more tangible and transparent insurance product that rewards the good drivers. Lastly, this initiative is expected to **rejuvenate the company's customer portfolio**. |
| **CLAIMS & UNDERWRITING DEPARTMENT** | The gathered data will be incorporated by the firm's underwriting in order to be added in their **risk assessment models** and **pricing analytics**. Moreover, it is expected to **reduce the company's average loss ratio**. On one hand, drivers will improve their driving behaviour, consequently decreasing the number of claims occurrences and associated costs. On the other hand, it will potential capture good drivers which have lower risk profile. |

# AGENDA

# RISK MITIGATION

THE MAIN POTENTIAL RISKS INVOLVED WITH THIS NEW PRODUCT ARE FRAUD, CANNIBALISATION, DATA BREACH AND ASSOCIATED FINES AND LACK OF CUSTOMER LOYALTY TO THE APP. FOR EACH OF THEM, TEAM IDENTIFIED POSSIBLE MITIGATION STRATEGIES

Associated with the launch of the new auto insurance solution, some risks regarding customer identification, revenue cannibalisation, data breach, customer loyalty and App integration were identified. For those risks, the team developed potential mitigation strategies.

| | | |
|---|---|---|
| **FRAUD RISK** | There's the risk of the App **monitoring the driving behaviour of a different person** (e.g. taxi driver) who is not the policyholder. Besides that, the **smartphone** may be **turned off** during a trip, making it an unmonitored trip. Therefore, there is a potential issue with driver identification and fraud. | The App has an **algorithm** that attributes a driving pattern for each driver. If this pattern is not identified during a specific trip, it will not save the aforementioned trip. |
| **CANNIBALISATION** | The risk of cannibalisation stems from **reduced company revenues** that come from premiums paid by good and safe drivers ("good risks") that present low risk of claims for the company and therefore, with this solution, the decrease in revenues may not be compensated by the improvement in claims costs. | The risk of cannibalisation may be mitigated by a more than proportional increase in revenues attained with new clients - **young safe drivers** who are overpriced at other insurance companies and will be attracted to change to Tranquilidade. |
| **DATA SHARING AND PROTECTION** | It is crucial to identify properly, assess and **minimise privacy risks** with data processing activities. Failure to do this could lead to a failure to comply with the General Data Protection Regulation and to heavy fines. | The company must receive the **consent** of customers in terms of using their data, to attribute discounts can be attributed. |
| **CUSTOMER LOYALTY** | With the trivialisation of smartphones apps, it is difficult for the user to understand the added value of new one. This way, since loyal customers are important for the insurer in terms of long term value, it is important to think of **strategies that engage the customers** and make them hold the app even in the long run. | Periodic **rewards**, premium **discounts** and **gamification** will enhance customers engagement with the App, keeping them loyal to the solution. |

# AGENDA

# TARGET CUSTOMER

THE TARGET AUDIENCE FOR THE ASSOCIATION OF IOT WITH THE HOME INSURANCE IS CHARACTERISED BY PEOPLE WITH MEDIUM-HIGH DISPOSABLE INCOME AND CONSIDERED RISK AVERSE, WILLING TO PREVENT ACCIDENTS IN THEIR HOMES.
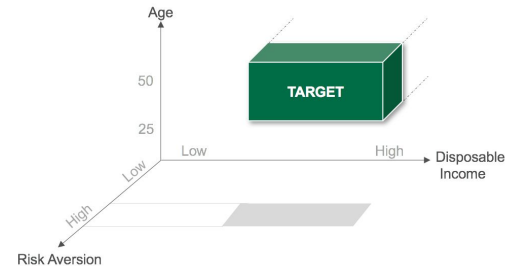
Once all the potential products and suppliers had been analysed, as well as the Portuguese customer, the team made a decision on the final packages to be available to the clients. The initial objective of the company was to have an offer that bundled the home insurance with these type of devices and that was **available to the mass market**. Although, the packages require a **high initial investment** for the client, there is a **monthly fee** associated with the service, there is **high price-sensitivity** in the Portuguese market and the **average premium** of home insurance is relatively **low**.

Thus, the team recommends this product to be **targeted to the medium-high segment**, people who will have the **necessary disposable income** to make the required initial and monthly investments. For Tranquilidade current clients, the ones expected to be the most interested about this new offer are the subscribers of the products "Tranquilidade Casa Mais", "Tranquilidade Casa Top" and "Tranquilidade Casa Prestígio", which are the products that correspond to the referred segment. Furthermore, the target of this product can be characterised as being **risk-averse**, wanting to prevent accidents from happening. In terms of age, this product can be for both young people who just bought or started renting their homes, and for a family who wants to see their house protected.

The expected number of buyers is the sum of the company's current home insurance customers and new clients that would be attracted by Tranquilidade's new home insurance product. The estimation of **current customers** was derived from a **penetration rate** that was applied to the home insurance customer base. This rate was calculated based on several metrics, namely the pre-requisite of having a smartphone, awareness rate, interest on the available packages (i.e. Anti-Theft, Prevention and their extensions) and willingness to pay. The metrics of interest and willingness to pay are used for the defined target, as the medium-high segment will be the mostly interested and willing to pay the required price. For the **new clients**, an analogous approach was used, with the additional factors of not being a Tranquilidade home insurance customer (which corresponded to 87.5% of the total home insurance market since Tranquilidade held 12.5% of market share) and **willingness to change** from his policy to this new one.

By the end of 2017 the company had slightly over 135,000 home insurance clients. From that client base, under the most likely scenario, 2.4% would be potential buyers for the new home insurance, buying at least one of the packages, amounting over 3,000 clients. Moreover, according to the Steering Committee, the company generally captures 14.3% new clients every year. Based on the metrics discussed above, the team estimated a delta of over 2,000 new clients on top of the usual yearly increase, just due to this new offering. Concluding, the **expected number of total buyers** is approximately around **5,500 clients.**

**GRAPHIC REPRESENTATION OF THE TARGET CUSTOMER**

# POSITIONING

THE NEW HOME INSURANCE SOLUTION WILL PROVIDE THE CLIENTS THE POSSIBILITY OF HAVING A CONNECTED HOME, MONITORABLE THROUGH THEIR SMARTPHONE, AND THAT ALLOWS THEM TO FEEL SAFER.

Regarding the solution to associate with the home insurance, Tranquilidade will need to define the product positioning for the set target.

### FRAME OF REFERENCE

The frame of reference is characterised by the traits of other players, as well as the benefits sought by the clients. For the new solution of home insurance, these are: **the possibility of having an insurance that focuses on the prevention side, making the client feel safer and the possibility of having a connected home**, monitorable through their smartphones. Although these types of technologies are already present in the market, they are still not being offered by any insurance company. Hence, when considering to buy these products the clients will also think of companies that have security and prevention devices as their core-business.

### VALUE PROPOSITION

The value proposition for the client is the fact that this new solution has not only the **remediative component of a traditional insurance, but also the preventive** part associated with the alarms and sensors. **Some of the claims can be avoided** through the alerts generated by the devices and the **clients can feel safer** as they will be able to monitor their homes from their smartphones. In addition, the discounts associated can also be considered value-added for the client, although they represent only a small premium reduction and will not be the main reason why the customer will make the rather high initial investment to buy the packages.

### POINTS OF PARITY

The points of parity between Tranquilidade and the other players in home insurance market are having some special conditions for the clients who possess an alarm system in their home. Most of the competitors offer discounts in this situation or only insure homes that have this characteristic and refuse the payment of claims if at the moment of the accident the system was not active.

### POINTS OF DIFFERENCE

The team believes that the main point of differentiation of Tranquilidade regarding other competitors will be the fact that there are still **no competitors who offer this solution**. The incorporation of IoT in the home insurance is something completely new in the Portuguese insurance market, making it possible to create a **great competitive advantage** for Tranquilidade as a brand.

Taking these into consideration, for this product the company will follow a **differentiation strategy**, attempting to be the only player in the industry that provides its customers with an insurance that not only focuses on solving the incidents that happen but also focuses on preventing them.

### POSITIONING STATEMENT

"For homeowners, with medium-high disposable income, who are somewhat risk averse, Tranquilidade offers a solution of IoT and home insurance that offers prevention and thus more security and peace of mind"

# AGENDA

# PRODUCT – POTENTIAL SUPPLIERS

AFTER CONDUCTING IN-DEPTH MEETINGS WITH THE REMAINING THREE SUPPLIERS, A LIST OF SIX KEY FACTORS WAS DEFINED IN ORDER TO ACCESS THE ATTRACTIVENESS OF EACH SUPPLIER.

With three remaining suppliers, a final analysis was conducted in order to understand which one presented itself as the best one to respond to Tranquilidade's needs and restrictions. This analysis evaluated the advantages of choosing a supplier through 6 different aspects: **Cost-efficiency** - relationship between the costs of IoT devices and their efficiency; **market experience** - number of projects developed for insurers; **brand awareness** - capacity of generating great volume of sales through brand association (brand synergies); **diversification of IoT devices -** variety of devices offered and their quality (i.e. sensor sensitiveness); **integrated solutions** - economies of scale that derive from supplier providing telematic solutions for Auto and Home products; **App integration** - possibility of merging the supplier's App and Tranquilidade's existing App into a single one.

| | B close | OCTO | MEO |
|---|---|---|---|
| **COST EFFICIENCY** | **Low**<br>Anti-theft Pack: 319€<br>Prevention Pack: 322€<br>Monthly service: 6€ | **High**<br>Anti-theft Pack: 148€<br>Prevention Pack: 160€<br>Monthly Service: 4.5€-7€ | **Medium**<br>Standard pack - 92€  (lacks some sensors)<br>Monthly Service: 7.5€ |
| **MARKET EXPERIENCE** | **Medium -** International award winner of connected solutions | **High** - Established partnership with Groupama (insurer) in the italian market | **Low** - launched a private initiative with no market response |
| **BRAND AWARENESS** | **Low -** Portuguese brand not very recognised by portuguese market | **Medium** - International brand of connected solutions but rather unknown in Portugal | **High** - 40% market share in the portuguese telecom market |
| **DIVERSIFICATION OF IOT DEVICES** | **Medium** - Large diversity and good quality of anti-theft, prevention and eco-savings devices | **High -** Good variety and quite modern anti-theft and prevention devices | **Low** -  Standard offer lacks devices (can be bought separately with a cost) |
| **INTEGRATED SOLUTIONS** | **Yes** - For Auto, Home and Health insurance | **Yes -** For Auto and Home | **No** |
| **APP INTEGRATION** | **No** | **No** | **No** |

# PRODUCT – SUPPLIER RECOMMENDATION

THE TEAM RECOMMENDS OCTO AS THE TELEMATICS SUPPLIER FOR THE HOME INSURANCE PRODUCT. I IS IS AN ITALIAN COMPANY, WORLD LEADER IN AUTO TELEMATICS, AND ALSO SOME EXPERIENCE IN THE HOME INSURANCE MARKET.

The team's recommendation - in terms of a supplier which can provide the best telematic solution for the home insurance product and taking into account all the company's needs and the cost structure of all the options assessed - **is to choose Octo as supplier**.



Octo Telematics is an Italian telematics company with **16 years of experience** (founded in 2002), being the **world leader** in telematics for the Auto insurance and also some experience in the Home insurance market, through some innovative initiatives in Europe. After an intense period of negotiations, Octo was the telematics firm that presented the **best offer** in terms of cost structure for the product to be associated with the home insurance.

The firm presents itself as the **ideal strategic partner** for the medium-long term, when compared with the other supplier options, allowing Tranquilidade to establish its own innovative project without being dependent or directly associated to another Portuguese brand, with no restrictions in terms of customer base (MEO, for example, would only have allowed to sell its Smart Home system for customers who were already their subscriptors).

Octo also promised to deliver great **flexibility in terms of final product design**, being able to build the packages that the team had earlier idealised, and even brand them with Tranquilidade's logo. MEO would have made available only one type of package that they already sell, while Bclose had much higher prices for the same packs offered by Octo. Furthermore, the firm was also able to include some B2C services including the own shipping of the package to the customer.

# PRODUCT – FINAL PACKS

## THE HOME INSURANCE INITIATIVE RECOMMENDATION CONSISTS IN THE OFFER OF 4 DIFFERENT TYPES OF PACKAGES, WHICH PREVENT CLAIMS AND INCREASE SAFETY: THE ANTI-THEFT AND PREVENTION PACKS, IN ITS BASIC AND PLUS VERSIONS.

The initiative the team recommends to be associated with the Home insurance consists in the offer of **two packs composed by IoT devices**, which **prevent claims** and **promote safety**, granting a **premium discount** to the customer. The Anti-Theft Pack offers prevention against **stealing**, **thefts** and **intrusions** while the Prevention Pack offers safety against **fires**, **gas leaks** and **floods**. Both these packs can be acquired individually and can complement each other, being connected to a control centre and to a smartphone App, which allows the customer to monitor its own home remotely, to receive alerts in case of danger and to interact with the system. The Anti-Theft and Prevention Packs are intended **for homes with up to 4 rooms**. For bigger houses, with **5 or 6 rooms**, the team recommends extended packages (i.e. the Plus Packs), composed by the same devices but in higher amounts, to provide the same level of protection.

### Anti-Theft Pack

- Control centre
- 1 Surveillance camera
- 2 Motion sensors
- 1 Window/door sensor
- 1 Exterior siren

### Anti-Theft PLUS Pack

- Control centre
- 2 Surveillance camera
- 3 Motion sensors
- 3 Window/door sensor
- 1 Exterior siren

### Prevention Pack

- Control centre
- 1 Smoke detector
- 2 Water leakage detector
- 1 Gas leakage Detector

### Prevention PLUS Pack

- Control centre
- 2 Smoke detector
- 2 Water leakage detector
- 3 Gas leakage Detector

## Eco-Savings Device

Besides the aforementioned packs, the team also recommends the existence of an **eco-savings device to be sold separately or even offered to the clients at policy renewal**. This smart plug allows the customer to **measure electricity consumption** of the connected device, keeping the historical data of the several consumptions. Therefore, it would help the user to control and to manage his consumptions through the system smartphone App. This would eventually lead to an increased **customer retention**, as the customers would be even more involved with the Smart Home system and, hence, with the home insurance policy itself.

*Smart Plug*
OCTO

# PRICE

THE FINAL SELLING PRICE OF THE DIFFERENT PACKS TAKES INTO ACCOUNT A 10% COMMISSION FOR THE INTERMEDIARIES. THE DISCOUNTS IN THE PREMIUM CORRESPOND TO 10% IN THE PURCHASE OF ONE PACKAGE AND 20% IN THE PURCHASE OF TWO.

After having designed the packages to be available to the customers, there were several metrics taken in account to define the final price of each pack, such as the costs incurred, the pricing objectives and the pricing strategy that should be followed.

## 1. DEFINITION OF COSTS

To launch this solution to the market, there will only be **no costs associated, apart from marketing and promotion**. Although, as the insurance intermediaries will be the ones in charge of selling the packages to the end-consumer, there will need to be considered the distribution costs associated with their commission of 10% of the selling price. The price of the packages provided by the suppliers include the devices, the basic maintenance services and the shipping costs directly to the end consumer's home.

## 2. PRICING OBJECTIVES

The pricing objectives when associating IoT with the home insurance are:

* **Reduce the claims' costs up to 30%**
* Offer a **differentiated product** that focuses on prevention

## 3. PRICING STRATEGY

To achieve the stated objectives, and considering the prices from the suppliers and the commissions to be paid to the intermediaries, Tranquilidade will follow an **absorption pricing strategy**, by only covering the referred costs and not earning any margin on the sale. In Portugal, Insurance companies are not legally allowed to generate any revenues coming from an activity other than the insurance policies.

The final selling price to the consumers will then be defined as follows:

| Pack | Supplier's Price with VAT | Intermediaries Commission | Final Price | Monthly Fee |
|------|---------------------------|---------------------------|-------------|-------------|
| **Anti-Theft** | 148€ | 16€ | 164€ | 4.5€ |
| **Anti-Theft PLUS** | 197€ | 22€ | 219€ | 6.5€ |
| **Prevention** | 160€ | 18€ | 178€ | 4.5€ |
| **Prevention PLUS** | 221€ | 25€ | 246€ | 6.5€ |
| **Both Packs** | 252€ | 28€ | 280€ | 5.0€ |
| **Both PLUS Packs** | 363€ | 40€ | 403€ | 7.0€ |

The acquisition of two packs simultaneously has a lower price than the sum of both, because there is no need to pay for the control centre twice. The packages will provide the customer with premium discounts: **10% discount with the acquisition of one of the Anti-Theft or Prevention Packs and 20% if the user buys both of them, simultaneously** (the same logic is applied for the Plus packs). For **houses** with **more than 6 rooms**, it is believed they will not be as protected as 4 or 5 rooms ones with the same amount of devices, the **discount will be lower**. It is important to reinforce that Tranquilidade already gives 10% premium discount to customers who have an alarm system in their homes.
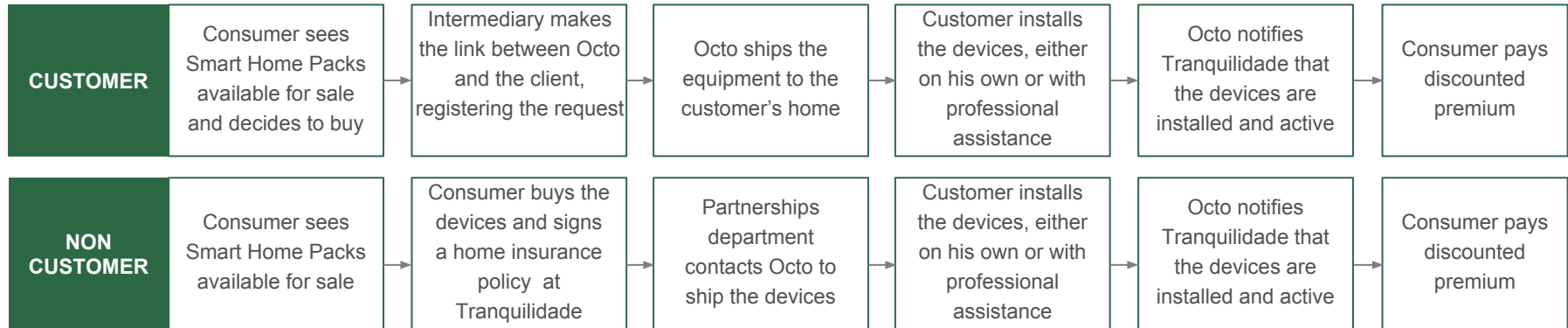
# PROCESS – FLOW OF ACTIVITIES

THE WHOLE PROCESS OF COMMERCIALISATION OF IOT DEVICES FOR CUSTOMERS AND NON-CUSTOMERS WAS ANALYSED AS SOME ISSUES RELATED TO DATA PROCESS AND SHARING AS THIS IS A SENSITIVE ISSUE FOR HOMEOWNERS.

Current customers can buy the devices and, if they are properly installed and activated, a discount on the premium will be applied on their current home insurance policies. Non Tranquilidade customers can also buy the devices and sign a new home insurance policy. This way, the devices and insurance policy are bought as bundle and the premium already has the discount incorporated.

## ACQUISITION PROCESS

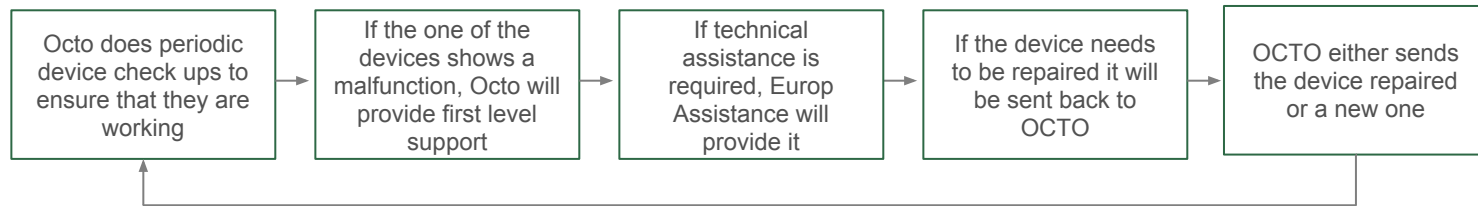| | | | | | | |
|---|---|---|---|---|---|---|
| **CUSTOMER** | Consumer sees Smart Home Packs available for sale and decides to buy | Intermediary makes the link between Octo and the client, registering the request | Octo ships the equipment to the customer's home | Customer installs the devices, either on his own or with professional assistance | Octo notifies Tranquilidade that the devices are installed and active | Consumer pays discounted premium |
| **NON CUSTOMER** | Consumer sees Smart Home Packs available for sale | Consumer buys the devices and signs a home insurance policy at Tranquilidade | Partnerships department contacts Octo to ship the devices | Customer installs the devices, either on his own or with professional assistance | Octo notifies Tranquilidade that the devices are installed and active | Consumer pays discounted premium |

## DATA PROCESS AND SHARING

Customers may be hesitant to adopt such IoT-based packages if they feel that their privacy is being violated. This applies especially to the Anti-Theft Pack since it comes with surveillance cameras that can record images in any room 24/7. Therefore, **insurers and service providers will need to prove that customer's data is protected and will not be used in ways that the customer does not want to** (e.g. only the has access to the video images). Hence, all the device related information collected in the control centre will first be directed to the telematics supplier, Octo. Once at the supplier's control platform, the data will be processed and stored. Tranquilidade will be informed if the devices are active and working properly and in case of an accident or emergency, it will request OCTO access to the data deemed necessary to deal with the claim.

THE INSTALLATION, MAINTENANCE AND USAGE CHECK-UPS ADD VALUE TO THE CUSTOMER AS AFTER SALES SERVICES. OCTO AND EUROP ASSISTANCE WILL BE RESPONSIBLE FOR PROVIDING THESE SERVICES.

Besides understanding how the process of sale takes place, it is also important to analyse how the after sales process will be. This way, the customer has to feel supported after the devices have been purchased. Hence, apart from installation that can be done by the customer himself, **maintenance and usage check-ups of the IoT devices will be under responsibility of Octo and Europ Assistance**, bringing more value to the customers as the ultimate goal.

**AFTER SALES PROCESS**

| Octo does periodic device check ups to ensure that they are working | → | If the one of the devices shows a malfunction, Octo will provide first level support | → | If technical assistance is required, Europ Assistance will provide it | → | If the device needs to be repaired it will be sent back to OCTO | → | OCTO either sends the device repaired or a new one |

The **installation** of the IoT devices can be made by the homeowner or Europ-Assistance. On the one hand, the devices are easy to install and ready to use, and there will be an instructions book attached and complementary tutorial videos on Youtube to help homeowners. On the other hand, the customer can also contract a professional technician from Europ-Assistance. This technician will ask for a fixed payment (the value is still being negotiated with Europ-Assistance). This service could be included as part of the home support (Assistência ao Lar) coverage that all customers already have at Tranquilidade, associated to their home insurance policies. Once the devices are installed in the customer's home, Octo is responsible of making periodic usage check-ups, being done every 12h. This is important to understand if indeed the devices are installed properly and are monitoring the home. This way, the insurer knows that the home is protected and secured, and so the premium discounts can be attributed.

The **maintenance** of the IoT devices can be made by Octo or Europ-Assistance. The customer will have a first level assistance composed by a support line to call the insurer if a product related problem is detected. If the call centre assistant is not able to solve the problem, a technician from Europ-Assistance will be sent to the customer's home in order to solve the problem, being the customer charged with a fixed payment.

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# PLACE

## THE DISTRIBUTION STRATEGY WILL RELY ON A LARGE NETWORK OF INTERMEDIARIES. ADDITIONALLY, AN ONLINE PLATFORM WILL SERVE AS A SECONDARY CHANNEL, AND WILL ALSO PROVIDE AS AN ALTERNATIVE SOLUTION IN THE EVENT OF ANY LEGAL CHANGES

As in the Auto insurance product, Home insurance sales are mainly driven a large network of intermediaries. However, in the beginning of the analysis, it was still uncertain if intermediaries would be allowed to sell IoT devices associated with the home insurance. Even though some intermediaries are allowed to pursue commercial activities unrelated to insurance intermediation, the fact is that the current legal framework is changing. Therefore, in order to address this issue,  several meetings were conducted between the team and the company's legal department. Fortunately, **it was concluded that the current legal framework concerning intermediaries activity does not constitute an impediment to the commercialisation of IoT devices**.

**INTERMEDIARIES**: Insurance intermediaries represent the strongest and most effective distribution channel, accounting for 91.6% of Non-Life insurance sales in 2016. As previously noted, in the auto insurance product, they can be tied intermediaries (*mediadores de seguros ligados*), agents (*agentes de seguros*), brokers (*corretores de seguros*), reinsurance brokers (*mediadores de resseguro*), banks and CTT (*correios*). However, according to the company's legal department, only tied intermediaries and agents will be able to commercialise IoT devices. Other intermediaries, such as insurance brokers, are obliged to restrict their activities to the sale of insurance policies.

Nevertheless, tied intermediaries and agents accounted for 19% and 53.1% of total Non-Life insurance sales in 2016, meaning they will potentially be a strong and effective sales force to push the adoption of this new solution into the market.

Additionally, banks might also be a possible distribution channel. Accounting for 16.7% of total Non-Life insurance sales in 2016, banks provide home insurance associated to mortgage loans, having a large exposure to new homeowners who seek to protect their houses. This would require further research with the company's legal department.

**DIRECT SALE**: As formerly seen, direct sales channels can be divided into insurance branches, internet and telephone. It is regarded as a less customer-oriented channel and with a much lower sales volume, accounting for 7.9% of Non-Life insurance sales in 2016. In light of possible changes to the legal framework at some point in the future and taking into account the increasing trend of insurance purchases through digital platforms, it was considered that within Tranquilidade's website could be created a descriptive section with an associated  link that would redirect homeowners to Octo's online sales platform. However, this would only be a secondary distribution channel as sales volume would be limited and insurer-customer relationship are not maximised. In the extreme event of a legal change, that would prohibit all intermediaries from commercialising the IoT devices, this would still be a possible distribution channel. Nevertheless, it would be less effective and should only be implemented as a standalone channel in a last resort scenario.

# PROMOTION – COMMUNICATIONS PLAN

A COMMUNICATIONS PLAN FOR THE HOME INSURANCE INITIATIVE WAS DEVELOPED, WITH THE MAIN OBJECTIVES OF EXPOSING THE NEW PACKS, CREATE PRODUCT PURCHASE INTENTION AND CHANGE BRAND PERCEPTION IN THE TARGET AUDIENCE.

The team developed a communications plan for this new Home insurance initiative, with the main objectives of creating in the customers' minds the **need** for prevention and safety equipment to reduce the risk of accidents, generating therefore a **conscious intention** to buy the product for this high-involvement purchase. It is also intended that the campaign changes the **customer perception** and **attitude** towards the brand, associating it more with **innovation** and **social responsibility**. The target audience of this plan was the defined as the *"segment of homeowners with 35 to 55 years, of social class and middle-high income, living in urban areas, with sensitivity to risk and interest in technology"*. The message of the campaign will have its focus in the benefit of the product - **claims prevention** - and in the consequent emotions that the customer may feel, such as **tranquility** and **safety**. The campaign budget that was set by the company is of **10,000€**. The entire communications strategy will have its centre in a website page entirely dedicated to this new product, while the other components are used to take the prospect there:

**Website page** - Company's website page entirely dedicated to the Home insurance initiative. This page will be the main link to the Octo sales channel, and should include Anti-Theft and Prevention Packs details (prices, benefits, associated discounts) and explanatory product videos. An expenditure of **1,000€** was planned for the development and maintenance of this webpage.

**Targeted Ads** - Sharing of **teasers** in social media platforms through effective Facebook Ads and Instagram Ads, with a planned duration of 3 months. With a **5,000€** investment the company can reach 14,000 daily views, a total of 1,25M views, 125 daily clicks on the ad, which represent 11,000 clicks in the entire period. Any prospect who clicks on the ad is sent to the product website page.

**Guerrilla marketing** - Five **promotional actions** to introduce the new Anti-Theft and Prevention Packs in commercial areas such as El Corte Ingles, Amoreiras, Chiado. The team recommends physical samples of the packages and the utilisation of promoters to explain the offer and its advantages. With a planned cost of **4,000€**, these actions would generate greater confidence in the product and create incentive to purchase.

**Internal communications** - The company can also leverage and take advantage of its own internal means of communication, which will not represent an incremental cost, such as the **brokers sales force**, and **email marketing** to current customers. This component of the communication can achieve high results in terms of awareness as the company has about 300,000 customers with Home insurance policies, who can be reached.

# AGENDA

# FINANCIALS – BUSINESS CASE

IN ORDER TO UNDERSTAND THE POTENTIAL IMPACT ON THE COMPANY'S P&L OF LAUNCHING A SMART HOME INSURANCE, A BUSINESS CASE WAS BUILT. IT WAS COMPOSED BY THREE DIFFERENT SCENARIOS AND ALL THE METRICS IDENTIFIED AS NECESSARY.

As in the Auto insurance project, the **team performed a business case for a twelve-month period** to understand the financial impact of the new Home insurance policy, based on the Anti-Theft and Prevention Packs. Likewise, **three different scenarios** were included, to provide additional insights on possible extreme outcomes and associated risks.

There were **two main business models**, one was the offering of a **premium discount** on clients who had acquired the packages and another was to **offer the packages** with no associated discount. Based on the conclusions from the focus groups, quantitative research and Steering Committee meetings it was decided to **pursue the first business model** (i.e. premium discount). Hence, the **analysis** detailed below refers that **specific model**.

For all three scenarios, the **first estimated parameter** was the expected **number of buyers** was estimated as the sum of the company's current home insurance customers and new clients, that would be attracted by Tranquilidade's new Home insurance product. **The second** estimated parameter, the average **percentage reduction in claims' costs**, was derived from the potential claims reduction obtained by means of the increased safety and prevention. For each package, the team divided the reduction in claims' costs in three main categories, which were slight, moderate and high. For each of them an expected percentage of clients was estimated, resulting in 5%, 70% and 25% respectively. This means than, on average, **1 out 4 clients** buying the package will **have a high reduction of claims' costs**. Then, a weighted average was computed, based on the average reduction of each package and the number of packages bought. Lastly, the **third estimated parameter** was the average percentage **discount given**, calculated as the weighted average of clients buying a package(s) and the associated discount. It is important to reinforce, that similarly to the auto business case, the team **validated all** the **parameters** and associated values for the home insurance with the **Steering Committee** members.

| PACKAGE | DISCOUNT |
|---|---|
| Anti-theft Normal & PLUS | 10,00% |
| Prevention Normal & PLUS | 20,00% |
| Both Packs Normal & PLUS | 30,00% |

| REDUCTION IN CLAIMS' COSTS (Expected % of clients) | ANTI-THEFT NORMAL & PLUS | PREVENTION NORMAL & PLUS | BOTH PACKS NORMAL & PLUS |
|---|---|---|---|
| Slight reduction (5%) | 7,50% | 5,00% | 12,50% |
| Moderate reduction (70%) | 20,00% | 10,00% | 30,00% |
| High reduction (25%) | 30,00% | 20,00% | 50,00% |

# FINANCIALS – KEY METRICS

IN THE MOST LIKELY SCENARIO, THE BUSINESS CASE PREDICTS NEARLY 5,500 BUYERS, AN AVERAGE CLAIMS' COSTS REDUCTION OF APPROXIMATELY 17% AND AN AVERAGE GIVEN DISCOUNT SLIGHTLY ABOVE 10%.

Focusing on the most likely scenario, the total **expected buyers** was approximately **5,500**, from which **60%** were **current** home insurance **clients** and the remaining **40%** being **new ones**. It is important to clarify that not all packages are assumed to be bought equally. There are approximately 2,000 clientes buying an Anti-Theft Pack (Normal and PLUS), 3,000 buying a Prevention Pack (Normal and PLUS) and 300 buying both packages, i.e. one Anti-Theft and one Prevention Pack (Normal and PLUS). For all of them, the **distribution** between **normal** and **PLUS** packages is **72%** and **28%**, respectively. In terms of **expected average reduction in claims' cost**, the figure stood at around **17%**. It is important to note that this reduction does not apply directly to the insurance premium, but rather on the loss ratio (i.e. claims costs over written gross premium) which was 47%, therefore decreasing by more than half its potential impact on the premium. Finally, the **estimated average discount** given was slightly over **10%**. This reflects the fact that a standalone package, either the Anti-Theft or the Prevention Pack, gives a 10% discount while both of them together give 20%. Yet, the expected number of buyers of both packs simultaneously is very small so the impact is minimal.

Comparing the most likely scenario with more extreme ones, namely the pessimistic, it is possible to observe that the **proportion** of **new clients varies significantly**. In the most likely scenario it is about 41% while in the pessimistic it is only 15%.

In terms of average percentage reduction in claims' costs, the pessimistic scenario exhibits a value almost one percentage point lower. The underlying reason, is that under the **most likely scenario**, the **ratio** of **Anti-Theft** Pack buyers (Normal and Plus) to total buyers **is higher relative** to the **pessimistic** scenario, to detriment of the proportion of Prevention Pack buyers. As seen in the previous slide, the **Anti-Theft Pack** provide a **higher expected cost reduction.**

Regarding the average percentage discount given, its variance is almost nonexistent between all scenarios. The **ratio** of buyers that buy **both packs** together is practically constant, around **5**%.

| PARAMETERS | PESSIMISTIC SCENARIO | MOST LIKELY SCENARIO | OPTIMISTIC SCENARIO |
|---|---|---|---|
| Total Buyers | 880 | 5 431 | 11 888 |
| Current clients | 749 | 3 195 | 6 004 |
| New clientes | 131 | 2 236 | 5 884 |
| Average % reduction in claims' costs | 16,44% | 17,28% | 17,37% |
| Average %  discount given | 10,44% | 10,47% | 10,53% |

# FINANCIALS – IMPACT ON THE P&L

IN THE MOST LIKELY SCENARIO, THE COMPANY IS EXPECTED TO MAKE AN YEARLY PROFIT OF APPROXIMATELY 71,000€ WITH THE NEW HOME INSURANCE, POTENTIATED BY THE INCOME GENERATED WITH NEW CLIENTS AND CLAIMS' COST REDUCTION.

In terms of P&L, four factors were forecasted, being three of them derived from the key metrics previously discussed. The first was the **margin**, in euros, achieved with new clients, calculated as the **product** of the **average home insurance premium** (approximately 131€) times the **profit margin** (roughly 28%) time the number of **new clients**. Here, the team adopted the same method from the Auto insurance product, i.e. used the average premium and margin of current customers for all computations.

Regarding the **reduction in claims' costs**, it was obtained as the product of the estimated **percentage reduction times** the **loss ratio times** the **average premium**. In matters of discounts given, it was obtained as the product between the average percentage discount and the average premium.

Finally, the **marketing** costs were the final **values negotiated** with the **Marketing Department** and amount to 10,000€. No additional costs were predicted, neither investment nor operational costs, since customers pay the full value of the packages which already include transportation costs and the broker's commission is added as a mark-up on the original supplier's price. It is also important to clarify that the **company will not profit from the sale of the equipment**, due to regulatory constraints.

Focusing on the most likely scenario, the **expected** impact on the company's **profit** from the **new home insurance solution** is **nearly 71,000€**. The biggest contribution from the margin with new clients that previously were not Tranquilidade home insurance customers (amounting to roughly 83,000€).

Even though there is a high **reduction in claims' costs** (almost 73,000 €), these are **completely overwhelmed by** the given **discounts** (approximately 75,000€). In the pessimistic and optimistic scenarios the company stands to make a loss of nearly 5,000€ and a profit of 204,000 €, respectively. This large difference can be explained by the expected number of new customers, which are about 100 people in the pessimistic scenario while in the optimistic it raises to almost 6,000.

| PROFIT & LOSS | PESSIMISTIC SCENARIO | MOST LIKELY SCENARIO | OPTIMISTIC SCENARIO |
|---|---|---|---|
| Margin with new clients (€) | 4,878€ | 83,245€ | 219,012€ |
| Reduction in claims' costs | 11,779€ | 72,714€ | 159,153€ |
| Discounts given | -12,076€ | -74,773€ | -164,547€ |
| Marketing | -10,000€ | -10,000€ | -10,000€ |
| **Net income** | **-5,420€** | **71,186€** | **203,618€** |

# AGENDA

# VALUE CHAIN – IMPACT

THE TEAM BELIEVES THAT THIS NEW SMART HOME SOLUTION WILL ADD VALUE TO THE COMPANY, BEING THE MOST AFFECTED DEPARTMENTS PRODUCT DEVELOPMENT, MARKETING & SALES AND CLAIMS & UNDERWRITING.

As initially studied, when analysing the new digitalisation trend and associated industry disruption, the new IoT solutions will have different potential impacts across the insurer's value chain. In Tranquilidade's case and for this specific product, the Smart Home devices, the most likely affected departments will be the **product development**, **marketing** and **sales** and finally **underwriting** and **claims** processing.

| | |
|---|---|
| **PRODUCT MANAGEMENT DEPARTMENT** | This new solution will collect and analyse more information about the customers' homes. With the aforementioned information, the company will be able to create more personalised offerings to its clients. Through increased and diversified customer offerings, the company is likely to sustain its **competitive advantage** relative to its competitors. |
| **MARKETING & SALES DEPARTMENT** | The Smart Home devices are expected to reinforce the company's strategy of innovation and social responsibility, reinforcing its **brand image**. In terms of sales, this new technological solution is expected to generate more value to the customer and consequently increase home insurance bottom line. Additionally, it is expected to improve customer relations and the **retention rate**, as a consequence of a more tangible and transparent insurance product. |
| **CLAIMS & UNDERWRITING DEPARTMENT** | The gathered data will be incorporated by the firm's underwriting in order to be added their in **risk assessment models** and **pricing analytics**. Furthermore, this solution it is expected to either prevent or reduce the potential damages of both thefts and accidents, such as fires or water leakages, and as a result **bring down claims frequency** and **associated costs**. Ultimately, it is expected to reduce the company's average loss ratio. |

# AGENDA

# RISK MITIGATION

Associated with the launch of the new Home insurance initiative, some risks regarding legal framework, data sharing and protection, equipment control and customer service were identified. For those risks, the team developed potential mitigation strategies.

| | | |
|---|---|---|
| **EU DIRECTIVE ABOUT INSURANCE AGENTS** | The sale of the designed packs will be done primarily through insurance intermediaries. However, there is still a high uncertainty level if and how this will be possible, as a new EU directive will be transposed later this year, in October. | Nonetheless, if selling the IoT equipment through agents ends up not being an option, an idealised contingency plan would be Tranquilidade **promoting the packs it self and forward the potential customers to Octo's website** where they would be able to finalise the purchase. |
| **DATA SHARING AND PROTECTION** | It is crucial to identify properly, assess and minimise privacy risks with data processing activities. Failure to do this could lead to a breach of the General Data Protection Regulation and to heavy fines. | The company must make sure the client is well aware of the information Tranquilidade will have and consents it. The company needs to negotiate with Octo which data it will require for its risk models and claims processing. **An on-going study regarding the potential impact of data is under course**, led by the company's legal department, named Data Protection Impact Assessment (DPIA). |
| **EQUIPMENT ACTIVATION AND USAGE** | Tranquilidade should be informed by the telematics supplier if the devices are active and working properly, making sure that the house is properly protected, to justify the associated Home insurance discount. | Therefore, it is important to make sure that clients keep the equipment active in the medium and long term, without invading their privacy, through **periodic check-ups conducted by the telematics supplier**. |
| **B2C STRUCTURE AND SERVICES** | The suggested supplier does not have a B2C structure developed, in terms of selling, shipping, and post-sale service, as they usually only sell directly to insurers. | Despite this, **Octo guaranteed that this structure could and would be developed**, accounting for the selling and shipping stages. Tranquilidade will have to developed its own after sales services: **Europ Assistance can receive technical training** from Octo regarding the devices installation and maintenance. |

# AGENDA

# SUMMARY OF RECOMMENDATIONS

**NEW AUTO INSURANCE PRODUCT:** The smartphone App was concluded to be the prefered option by the Portuguese customer and the best for the company due to its high cost-efficiency, with a high quality in terms of collected data and low cost relative to the both the physical devices and the Smart-Tag option. The supplier should be Sentilant, a Portuguese company with market experience, that has already developed a similar solution - Liberty's App "Hit The Road!". The team recommends it to target the mass market, instead of only to Top clients as initially hypothesised. The App's high development cost and inexistent variable costs, will potentially benefit from economies of scale. The App will evaluate the driver's behaviour and attribute a score to each trip. The final score for the month will be a weighted average of the scores and kilometres driven on each trip. Based on the it, the customer may be given a discount that could go up to 15% of the policy premium. Additionally, he might receive periodical rewards, such as a fuel vouchers, and extract value from the gamification component and improved driving habits. The company should follow a cost leadership strategy, positioning itself as the most price-competitive in the industry, especially among the young drivers' segment. Young drivers exhibit a high variance in terms of risk and, hence, are usually overpriced by insurers, so they are expected to be the most interested. The distribution strategy will be primarily done through a large network of insurance intermediaries and the internet will be a secondary channel. In terms of promotion, the plan is to create targeted ads, an Instagram giveaway, invest on guerrilla marketing and make use of the company's internal communication. For a twelve month horizon, the business case predicts over 10,000 app users (in the most likely scenario), of which 25% are new clients, an average claims' costs reduction of approximately 8% and an average given discount slightly above 5%. Consequently, the impact on the P&L will be a positive, generating nearly +26,000€.

**NEW HOME INSURANCE PRODUCT:** The Anti-Theft and Prevention Packs were concluded to be the best IoT solutions to associated with the home insurance. These packs should have two versions, a normal one that applies to homes with up to 4 rooms, and an extension named "PLUS" for houses with 5 or 6 rooms. The Anti-Theft Pack would aim at avoiding intrusions and home thefts while the Prevention Pack would prevent fires, floods and gas leak accidents. As an add-on an eco-savings device (smart plug) should to be sold separately or even offered to the clients at policy renewal. The recommended supplier is Octo, since its offering outperformed the competition in several criteria such as cost efficiency, market experience and diversification of IoT devices. The value for the client would be a 10% premium discount on a standalone pack and 20% on both. Additionally, they would benefit from increased safety and comfort. It should be targeted at the medium-high segment, instead of the mass market as initially hypothesised. The underlying reasons are the high initial investment for the client, the monthly fee associated with the service and the fact that the average premium of home insurance is relatively low (high price-sensitivity). Tranquilidade should follow a differentiation strategy, being the first company in the Portuguese market that provides its customers smart home equipment associated the traditional Home insurance. The distribution strategy will be primarily done through a large network of insurance intermediaries, and an online platform will serve as secondary channel. In terms of communication, the plan is to create a web page, targeted ads, invest on guerrilla marketing and make use of the internal communication. For a 12 month period, the business case expects, in the most likely scenario, nearly 5,500 buyers (of which 40% are new clients), an average claims' costs reduction of approximately 17% and an average given discount slightly above 10%. The predicted impact on the P&L is nearly +71,000€.

# AGENDA

# KPI'S – MEASURING PERFORMANCE

BOTH AUTO AND HOME PROJECTS WERE APPROVED BY THE COMPANY. SOME OF THE KEY PERFORMANCE INDICATORS INCLUDE: BUSINESS VOLUME GENERATED, CHANGES IN BRAND IMAGE, IMPROVED RISK METRICS, CUSTOMER SATISFACTION AND RETENTION.

Both initiatives were **approved** by the client in the third and final Steering Committee meeting. It was decided to implement the Auto insurance initiative through Logo as a **pilot project**, and to launch the Home insurance solution before the next summer, using the Tranquilidade brand. In order to measure the **impact** and **performance** of each project, four main factors should be analysed.

### BUSINESS VOLUME GROWTH WITH NEW CUSTOMERS

Both products are expected to differentiate the company from its competitors, creating a sustainable competitive advantage. Hence, it is likely that they will **attract new customers**, leading to an increase in policy sales. This business volume growth can be explained by the transparency, customisation and value of both products, which ultimately result in safety and prevention.

### BRAND IMAGE AND EMPLOYER BRANDING

By investing in new technologies that are related with safety and prevention, the company will be associating itself with **innovation**, **dynamism** and **social responsibility**. It can be said that both projects are aligned with the company's recent strategy and rebranding, thus, they will reinforce the brand image changes. They can also turn Tranquilidade/Logo a **more attractive employer** for young workers.

### R&D AND POTENTIAL COST REDUCTION

The company should also be able to learn more about **risk assessment**, since by means of the new technologies and equipment, it will have access to a vast amount of **new data** and a new range of **insights**. This might lead to more **accurate pricing** and also help **mitigate risk**, potentially reducing claims' frequency and costs.

### CUSTOMER RELATIONS IMPROVEMENT

Lastly, the company will most likely benefit from a deeper involvement with its customers, improving the relationships between them. By providing an additional service to its customers, which is aimed at increasing **transparency** and improving their **safety**, Tranquilidade might increase its **customers' satisfaction** and, therefore, its customers' **retention rate**.

# AGENDA

A. **Methodology**

B. **Diagnosis**

C. **Analysis**

D. **Recommendations**

E. **Individual Reflections**

F. **References**

# INDIVIDUAL REFLECTION – ANA JORGE FERREIRA

**KEY LEARNINGS**

When deciding about my Work Project semester, I was confronted with the possibility of having a more practical project, aimed at giving an answer to a problem being faced at a Portuguese top firm. With no doubts, and because I really wanted to have a consulting experience, in which I could see the concepts I have learned throughout five years of studying applied in a real-life-project, I chose the Consulting Labs. Although, when I applied for this project, I had no idea how enriching this experience would turn out to be.

The project developed at Tranquilidade allowed me to start grasping the dynamics of a complex industry, which I thought, at first, that was a traditional and old industry, but turned out to be very exciting, given all the disruption happening at the moment and the opportunities for creating change and impact. Furthermore, it was a truly rewarding opportunity to work with the Tranquilidade team, who besides the know-how, showed an amazing commitment to us and to the project, enriching our overall experience and making sure our conclusions were on the right path to ultimately see the project implemented.

These twelve weeks allowed me to learn how to work alongside people with very different personalities and adapt my work methodology to better fit the people I was working with. The key learnings I got form this project and that I will take for my future are the following:

• **Syndication:** before starting this project with Professor Constança, I had not yet realised how important it is to make sure everyone who is slightly tied to the project in development should be involved and informed of the main decisions before the final presentations. The syndication project turned out

• **Time-management:** when we started the project we had defined a work methodology with three main deadlines. Although, in the end of the kick-off meeting it was decided that for the first deadline, the company would like to see the content we had defined to be done the first two periods. To tackle this problem we had to be very time-effective. I feel that I have improved my time-management skills significantly because of this and because of the time schedule we had to follow on a daily basis

• **Teamwork:** I am very grateful for having had the possibility of working with a team of such brilliant minds. I feel that in all moments we were able to work as a group that wanted to accomplish a good result in every step of the way. We always made decisions together, making sure the opinion of each of the team members was taken in consideration.

I will certainly take this experience and key learnings for the rest of my life.

# INDIVIDUAL REFLECTION – FRANCISCO LAIRES MACHADO

**KEY LEARNINGS**

I can say that the Consulting Lab was an extremely positive experience for me, which made me develop my soft and hard skills but, most importantly, made me grow as a young team worker and, therefore, as a person.

The entire project clearly exceeded the expectations which I had created about it, and most of all, I can say that it prepared me better than any other type of final work project would have for the incoming real business world, because of the confidence in my own work capacity that it gave me.

The Consulting Lab provided me the chance of being in a real business environment on a daily basis, understanding how a company like Tranquilidade works, and it also allowed me to comprehend how a real consulting project develops itself. It also provided some truly enriching moments, from presentations to most of the board, including the CEO, to conducting qualitative interviews, in Viseu.

I am certain that this experience is going to be valuable and help me throughout all my future professional career. The three most important key learnings that I took from the Consulting Lab are:

- **Teamwork**: the team faced continuous challenges during the 3 months, and the four of us adapted to each other along the way. Personally, I can say that I am more prepared to develop positive interpersonal relationships, in a work context, than I was at the beginning of the project.

- **Communication skills**: besides the entire syndication process, all the meetings, presentations and interviews that were conducted allowed me to develop my soft skills exponentially.

- **Resilience**: working several times under pressure and having to overcome specific problems almost in a daily basis, I developed exponentially the capacity to motivate myself when the circumstances are not so favoring,

# INDIVIDUAL REFLECTION – JOSÉ MARIA NEVES

**KEY LEARNINGS**

During my masters I had the opportunity to develop many projects in different courses in which I applied many theoretical concepts from classes. When I had to decide which Work Project I had to do to finalize my masters degree I was doubtful about the Management Consulting Labs, since I was not sure if I would get the opportunity to work in a meaningful and impactful consultancy project, for a real client. The fact is that this project exceeded all of my expectations.

In fact, at Tranquilidade I had the opportunity to deal with many different personalities, not only my colleagues, but also my advisor and the company's collaborators which serves as a example for my future career. As a matter of fact, the project was indeed challenging for the time sake and so from the first day our team had to put a lot of energy. Indeed, I fell in love with this project and in the end our team presented a fine piece of work, ultimately creating value for the company.,

Summing up, working at Tranquilidade was a tremendous experience for me and I am certain that all my learnings will undoubtedly useful for my future career.

All in all, the three most important key learnings that I took from the Management Consulting Lab are:

• **Teamwork**: Everyday I was confronted with different challenges and I was able to learn how to work and cooperate in a team in order to overcome them, achieving so common goals.

• **Planning**: The capacity to divide tasks and set deadlines in the project with my colleagues were very important to improve my planning skills and long term envisionment skills.

• **Initiative**: I realized the value of having initiative in a company, as, for instance, asking the company's collaborators for opinions and help, making it possible to create new things and drive change inside the company.

# INDIVIDUAL REFLECTION – TOMÁS LAMEIRA

**KEY LEARNINGS**

Overall, the consulting lab was a very positive experience both in technical and non technical terms. Being a project related to the insurance industry, it was highly challenging at an analytical level due to its complexity and level of detail. Three intensive months of going through the insurer's data bases and financial statements, were definitely a big contribution regarding knowledge enrichment and provided a practical implementational of all the skills learned during the whole Masters in Finance. On a parallel dimension, I was also able to demystify other areas, non-finance related, such as marketing and communication which proved to be equally interesting and challenging. Additionally, I was able to develop further my deep interest in strategy, through the idealisation and development of new products always taking into account the target's needs.

In non technical terms, I was able to experience what it is like to work as a consultant and try to listen to the clients wishes and try to always incorporate their views on our work. Furthermore, it gave me exposure to highly ranked employees from whom I had the opportunity to learn with.

On top of all this, I had the chance to work alongside a great time, with highly committed and supportive team members.

I am certain that this experience is going to be valuable and help me throughout all my future professional career, especially since I will start my career as a consultant in early September.

The three most important key learnings that I took from the Consulting Lab were:

- **Teamwork**: I consider myself team worker and believes that it is necessary to take advantage of every team member's contribution to attain the best possible results. During this work I was able to strengthen my communication skills and realise the importance of always helping others when needed and vice-versa.

- **Planning:** During the course of the project there were times we were highly stressed and under pressure to present the Steering Committee the results they were expecting from us. I believe this experience will help me plan and organize better in the future as well as predict possible difficulties

- **Resilience**: On the same line of thought, the constant hard work and dedication, always believing we could do better was, for me, one the main learnings that I wish to carry with me during my future career

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