

# Revolutionising Motor Insurance: OCTO AI-powered benefits

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A UK & EMEA perspective

From the world's largest UBI laboratory to the UK motor market.

*"The world as we have created  
it is a process of our thinking.  
It cannot be changed without  
changing our thinking"*

Albert Einstein



# Digital Insurance: the future is now

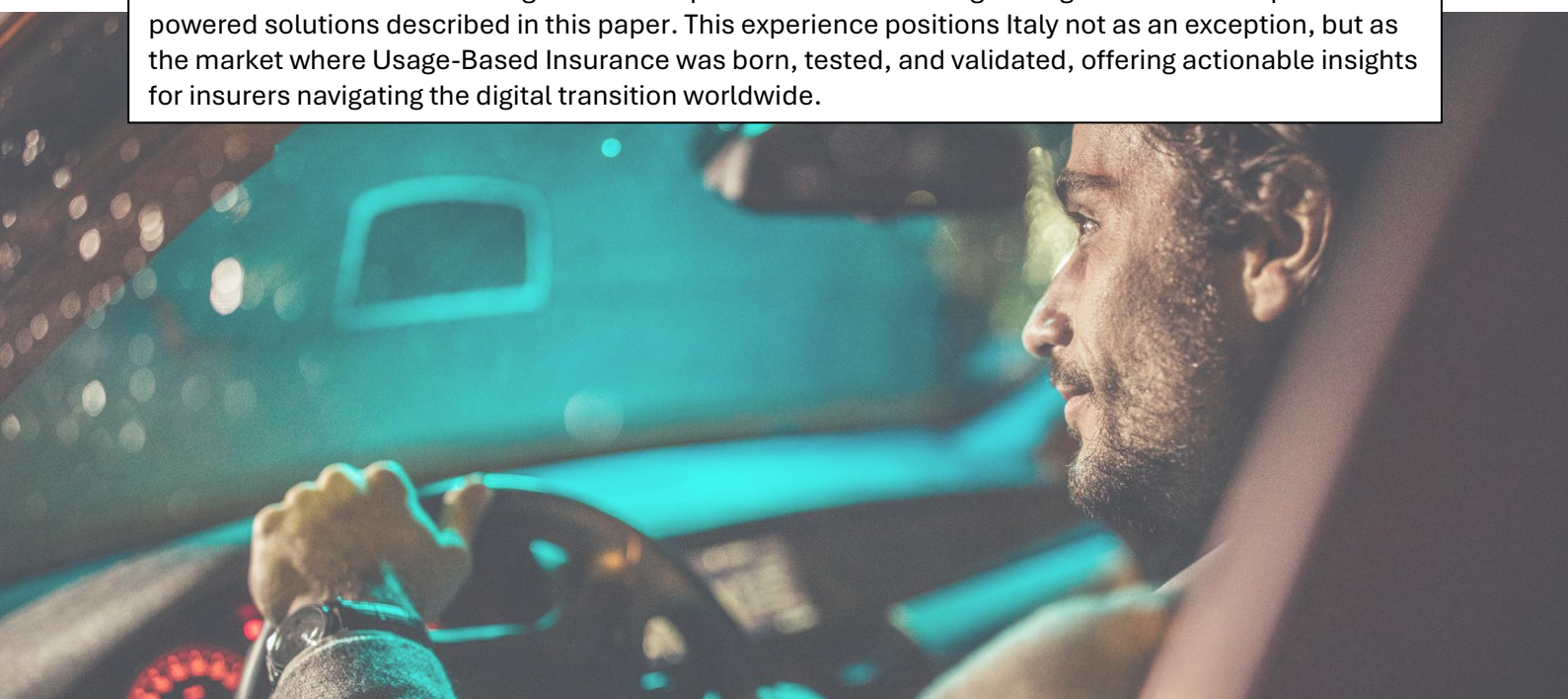
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The Insurance Market was one of the first sectors to experiment with digitalisation through connected vehicles via black boxes (OCTO Clear Box). Yet despite the demonstrated benefits of digitalisation, which in the case of adoption yield financial gains for Insurers, advantages for consumers as well as the wider society, the international market is still struggling to take off at scale.

This paper aims to provide an overview of the current landscape and mature solutions to facilitate a frictionless digital adoption, guiding businesses toward embracing technologies that are shaping the society of the near future, where human capabilities will be augmented by data intelligence.

## ***Italy as the world's UBI lab***

Italy represents a unique vantage point in the global UBI landscape. As the most mature market for connected motor insurance, with an 18 percent penetration rate compared to a global average of six percent, it offers a proven reference model for the benefits that digitalisation can deliver at scale. OCTO has played a central role in shaping this market, accumulating over 20 million profiled users and 610 billion kilometres of driving data — a depth of real-world driving intelligence that underpins the AI-powered solutions described in this paper. This experience positions Italy not as an exception, but as the market where Usage-Based Insurance was born, tested, and validated, offering actionable insights for insurers navigating the digital transition worldwide.



<sup>1</sup> IVASS – Comunicazione statistica n.1/2024

<sup>2</sup> PTOLEMUS Consulting Group

# Abstract

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The motor insurance industry is currently undergoing a profound and challenging transformation driven by market dynamics, technological advancements, and regulatory changes, resulting in significant disruptions in daily operations.

This transformation necessitates more than just technological solutions; it requires market acceptance, trust, and tangible ROI outcomes.

OCTO exemplifies how, through a holistic, data-driven, and AI-empowered approach, it advocates for technology that prioritises people, leading a transformative journey that delivers positive effects to all stakeholders and ultimately benefits society as a whole. Central to this approach is the ability to price risk with greater precision — where traditional factors alone achieve a predictive lift of around 3x, OCTO's DriveAbility® Score, powered by real-world driving behaviour data, delivers a lift of more than 10x, significantly outperforming both conventional underwriting and competing telematics solutions. Demonstrated benefits include reducing high risk driver profiles by 40 percent, fraudulent insurance claims by 50 percent, time to claim settlements by 20 percent, and improving road safety with a 20 percent reduction in crash events.



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# The current landscape of the Insurance Industry

In recent years, the insurance industry has undergone a significant transformation driven by economic factors, shifting consumer behaviours, and regulatory changes accelerated by advancements in technology and Artificial Intelligence (AI).

Within this landscape, the insurance market is witnessing heightened competition, intensifying the need for rapid adaptation to maintain a competitive edge. Both traditional incumbents and new Insurtech entrants are vying for market share, compelling insurers to differentiate their offerings, innovate products and services, and explore new distribution channels in an increasingly crowded marketplace. \$170 billion in premium is at risk over the next five years as customers switch carriers due to not being fully satisfied by the claims process. Additionally, underwriters are spending 40 percent of their time on non-core activities, representing an efficiency loss of \$85-\$160 billion over the next five years<sup>3</sup>.

Economic fluctuations, including inflation and recessionary headwinds, have direct implications on the insurers' profitability, investment returns, and underwriting practices. In fact, auto insurers lost an average of 12 cents on every dollar of premium they collected in 2022—the worst performance in more than 20 years<sup>4</sup>.

Concurrently, evolving consumer preferences and behaviours, propelled by digitalisation and a demand for personalised experiences, necessitate insurers to embrace digital transformation initiatives to meet the

**The insurance industry has transformed due to economic shifts, consumer behavior changes, and technological advancements, necessitating rapid adaptation, digitalization, and cybersecurity measures for growth.**

expectations of tech-savvy customers and provide seamless omnichannel experiences.

Navigating the insurance industry's complex regulatory landscape, which varies across jurisdictions, requires compliance with regulations such as the EU's Environmental Action Programme (EAP) and the Financial Conduct Authority's (FCA) General Insurance Pricing Practices (GIPP), along with broader considerations related to data privacy, consumer protection, and solvency requirements. As insurance operations become increasingly

<sup>3</sup> Accenture Research Report - Transforming Claims and Underwriting with AI

<sup>4</sup> J.D. Power 2023 - US Auto Insurance Study

digitised and the volume of sensitive data grows, insurers face heightened vulnerability to cyber threats such as data breaches, ransomware attacks, and phishing scams. Therefore, robust cybersecurity measures are indispensable for safeguarding customer information and upholding trust in the digital age.

Successfully addressing these multifaceted challenges demands a proactive approach, strategic planning, and investment in innovation, technology, and talent development. Insurers capable of navigating these complexities stand to seize opportunities for growth, differentiation, and long-term success in the evolving landscape.

## ADHERING TO REGULATIONS AND MANDATES IN THE INSURANCE INDUSTRY

Regulatory compliance in the insurance sector spans various dimensions, influenced by unique models and practices across different geographical regions.

One key focus area is data privacy, especially with the rising prevalence of user-profiled mobile apps. Interestingly, consumer attitudes toward data sharing seem to be evolving, with many individuals becoming more receptive if incentivised. According to Accenture Global Insurance Consumer Study 2023<sup>5</sup>, 60 percent of respondents say they “would be willing to share a lot of data for faster, easier services, such as insurance claim processing without the need for lengthy application forms to their personal circumstances”. This opens the opportunity for insurers to provide profiled services, with a positive reception.

In the United Kingdom, motor insurance affordability has become a pressing policy priority. The Government's Motor Insurance Taskforce, reporting in 2024, identified the need for fairer, more transparent pricing practices — particularly for younger and lower-income drivers disproportionately impacted by rising premiums. This built on earlier FCA intervention through the General Insurance Pricing Practices (GIPP) rules, which addressed loyalty penalties and mandated demonstrable fair value for renewing customers. Across both initiatives, the underlying imperative is consistent: pricing must more accurately reflect individual risk. Telematics represents the most effective means of achieving this at scale — replacing broad demographic assumptions with real driving behaviour data, enabling insurers to reward safe drivers with fairer premiums, and directly addressing the affordability challenges at the heart of the UK policy agenda.

### UK pricing reform: why telematics matters now

Following the FCA General Insurance Pricing Practices reform, UK motor pricing needs to be demonstrably fair, transparent and personalised. Telematics makes this industrially scalable by linking price, risk and service to observed driving behaviour rather than static proxies alone.

Moreover, it is imperative for companies to prioritise Environmental, Social, and Governance (ESG) considerations, as these indicators serve as a competitive differentiator in today's landscape. To future-proof their business, OCTO can assist insurers in aligning their market priorities with the regulatory landscape. This is achieved through a comprehensive understanding of evolving regulations, enabling technologies, and consumer attitudes, which reflect a growing attention toward sustainability and ESG. According to recent statistics<sup>6</sup> 76 percent of consumers are interested in Motor Insurance premiums tied to safe driving behaviours. OCTO's advisory services play a pivotal role in aligning insurance operations with the ESG framework, driving improvements in various mobility related key performance indicators (KPI). According to OCTO's experience, these include reductions in crash events by 20 percent, resulting in less road fatalities, incentives to mitigate risky driving behaviour, and the advocacy of eco-friendly driving styles, all of which contribute to society's environmental goals.

By supporting and embracing ESG principles and integrating telematics solutions, insurers can not only enhance their competitive positioning but also contribute to the broader societal objectives.

<sup>5</sup> Accenture's Global Insurance Consumer Study 2023 - Seeing the people behind the policies

<sup>6</sup> PTOLEMUS Consulting Group

# OCTO's pivotal role in fostering innovation

OCTO plays a pivotal role in fostering innovation through adoption strategies that minimize investment costs, leverage scalable solutions through comprehensive training and consultancy services. With the experience gained from over 160 motor insurance programs across 20+ countries; by facilitating the digitalization of the entire policy life cycle, OCTO improves the Combined Ratio through data-driven insights, analytics, and cutting-edge AI applications.

Encouraging safer driving behaviour, telematics policies play a vital role in reducing road accidents, injuries, and fatalities. Additionally, by rewarding policyholders for their safe driving habits with lower premiums or discounts, insurers also incentivise responsible behaviour behind the wheel.

With multiple touch-points and positive reinforcement, this fosters a trusted and continuous relationship between insurance providers and policyholders.

Among other examples, with telematics-based scoring generated after each journey, AXA's YouDrive connected car insurance led to a reduction in claims of around 25% compared with standard insurance policies.

Usage-Based Insurance (UBI) policies not only benefit individual drivers but also contribute to the broader goal of creating safer roads for all. As the adoption of telematics continues to grow, their positive impact on road safety and insurance industry dynamics is poised to become even more pronounced in the years to come.

With more than 20 million profiled users,

610 billion kilometres of driving data and 1.7 billion scored trips, OCTO's AI and predictive analytics capabilities are revolutionising insurance underwriting, claims processing, and risk assessment. In supporting insurers for greater efficiency and effectiveness, they are better positioned to meet evolving market demands.

## OCTO scale numbers

23 years of data collection and insurance telematics expertise.

1.48M scored accounts and 1.7B scored trips powering

## DriveAbility insights.

160+ motor insurance programmes delivered globally across 20+ countries.

OCTO has a focus on understanding the diverse needs and priorities of customers, particularly in the context of the B2B2C model, where the consumer is at the heart of the transformation. With this approach, the experiential impact on the end consumer (C) for every solution offered to businesses (B) is carefully evaluated.

## OCTO KEY NUMBERS

**+20 Million**  
PROFILED USERS

**+92 Billion**  
REGISTERED TRIPS

<sup>7</sup> AXA – '2025 Integrated Report'

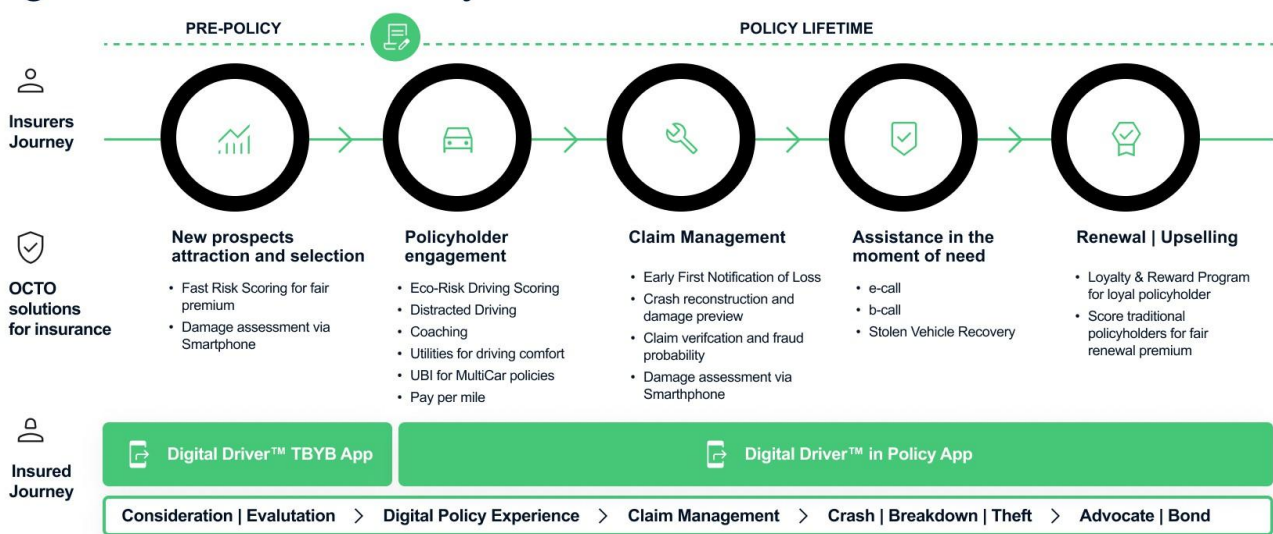
As a result, solutions not only address the functional requirements of our B2B clients, but also elevate the experience for end-users. By merging the demands of insurance and consumers into a single journey (Figure 1), we elevate satisfaction and engagement,

driving positive outcomes on the core insurance objectives:

- Customer selection and retention
- Risk reduction
- Claims management

INSURANCE CUSTOMER JOURNEY

Fig.1 - Insurance Journey with OCTO Solutions



**OCTO SOLUTIONS SCALABILITY**

OCTO solutions stand out for their scalability and broad coverage, seamlessly adapting to the evolving needs of insurance providers, irrespective of their size or complexity. Whether it's a small-scale implementation or a large-scale deployment spanning multiple regions, the solutions are tailored to expand alongside the business: from end-to-end components readily available for rapid adoption to 'as a service' ones that facilitate interoperability within custom systems.

Managing telematics services across the entire delivery chain, OCTO provides a secure method for data collection from smartphones, devices installed aftermarket or line-fitted by OEMs. With a device agnostic approach, OCTO solutions are compatible with third-party devices that also future-proofs the investment, allowing for easy integration with existing systems and technologies.

Data is acquired from connected vehicles in read-only mode, ensuring no risk to the vehicle, and transferred in an encrypted form to OCTO's data centre, which operates under strict security protocols.

Recognising the paramount importance of safeguarding user data and ensuring system security, OCTO diligently applies regulations and adheres to security policies compliant with ISO 27000 certifications. Furthermore, OCTO extends these stringent standards to suppliers through audits and assessment tests, ensuring comprehensive security measures throughout the ecosystem.

# Customer Selection and Retention

Amidst escalating inflation, consumers are increasingly reassessing their insurance choices, often opting to unbundle policies in search of better value. Insurers are responding by prioritising personalised offerings to cater to individual customer needs and preferences. In the United Kingdom, consumer receptiveness to data sharing is gaining traction, with 28 percent of customers willing to share their data with insurers, driven by the prospect of improved services and fairer pricing that reflects their individual driving behaviour. Among those who choose a Usage-Based Insurance policy, the appeal of greater flexibility is a significant factor, with almost half citing it as the primary reason for doing so. At the core of this evolving landscape is the widespread adoption of smartphones, transforming insurer-policyholder interactions and providing the foundations for the personalised, flexible propositions that this growing segment of consumers is actively seeking.

**As inflation rises, consumers reconsider insurance options, prompting insurers to offer personalized services, driven by data sharing preferences and smartphone adoption, particularly evident in the usage-based insurance market.**

Recognising this trend, more insurers are leveraging mobile apps to streamline communication and enhance the overall customer experience. This trend is particularly evident in the UBI market, where smartphone-based propositions represent 47 percent of all active global UBI policies. This figure is projected to climb to 51 percent by 2030, with policies expected to surge from 21 million to 126 million<sup>9</sup>.

In navigating this dynamic landscape, OCTO offers a Try Before You Buy (TBYB) mobile app to acquire qualified leads through predictive risk scoring. In addition to optimising the costs associated with customer acquisition, it identifies ideal customers and effectively manages the portfolio risk through customer selection.

The app works by swiftly engaging with customers, providing a risk score, known as the DriveAbility® Agile Score, over a period of 14 to 28 days. With this innovative solution, insurance companies are able to establish more accurate pricing at the first quote, helping to enhance customer satisfaction and retention.

By leveraging game mechanisms and rewards, gamification incentivises end-users to adopt safer driving practices through the collection of points associated with positive driving habits, behaviours and scores.

<sup>8</sup> Accenture - Pulse Check 2018

<sup>9</sup> PTOLEMUS Consulting Group

Points are translated into rewards (prizes or discounts) following predefined rules. The redemption process can occur through leading platforms like Amazon or be integrated into other e-commerce platforms.

In customer retention, gamification serves various purposes, including engaging customers by transforming applications into captivating experiences, strengthening brands through increased awareness and affinity and educating and coaching to be safer on the road.

This facilitates a virtuous circle by challenging drivers to improve their behaviour.

Programs in place with gamification have shown that driving behaviour improves two out of three drivers and reduce risky driving events by up to 40 percent.

These objectives underscore the necessity for insurers to bolster customer relationships through direct interactions, considering that recent research by EY<sup>10</sup> reveals that 44 percent of customers have had no interactions with their insurers in the past 18 months.



# Risk Reduction

At the core of the insurance industry lies the imperative of risk reduction, pivotal for minimising the Loss Ratio and enhancing profitability. Traditionally, insurers have relied on reactive approaches with static parameters and clusters to assess risk, but evolving market demands call for a flexible pricing model accommodating various personal mobility scenarios such as driving safely and driving green.

**The insurance industry focuses on risk reduction for profitability, requiring adaptable pricing models. OCTO addresses insurers' challenges in accessing accurate data and emphasizes feedback and incentives for safe driving to enhance customer relationships and portfolio performance.**

OCTO recognises the challenges for insurers are twofold: accessing accurate data to quantify driving behaviours impacting claim frequency and severity, and applying fair tariffs based on this data. Moreover, providing intuitive feedback on risky behaviours and incentivising safe driving practices are crucial for fostering portfolio improvements.

These goals strengthen the customer relationships in a win-win direct interaction.

OCTO DriveAbility® Advanced Score is the industry leading telematics-based risk score, derived from actual driving behaviours and insurance losses leveraging a large cross-insurer driving database

including policy and claim data. Where "Lift" measures how much more accurately a predictive model can identify who is likely to make a claim.

Traditional insurance factors achieve a lift of around 3x, while most telematics solutions reach 4-5x. OCTO's DriveAbility® Score achieves a lift of more than 10x.

It provides insurers with a highly predictive Risk Index and deep segmentation (high resolution index and score breakdown into eight main components such as distracted driving and smoothness), while keeping drivers engaged with behaviour-based scores. It is driven by data, employing proprietary algorithms adaptable to diverse data sources such as a black box, plug-in devices, smartphones or line-fitted telematics. Our device-independent approach ensures accurate results, based on data cleaning and enrichment through policy and claim data to enhance predictiveness.

Insurers who have implemented the OCTO Digital Driver™ app, which includes an advanced scoring system, have noted a significant 20 percent

difference in loss costs between the highest and lowest risk drivers. Moreover, drivers who attained the highest score experienced a 27 percent decrease in claim frequency compared to non- telematics users<sup>11</sup>.

**Young drivers and retention proof point**

Digital Driver APP programmes show a -27% claim frequency impact, supporting both risk reduction and customer retention strategies for younger and digitally engaged drivers.

This emphasises the accuracy of OCTO’s scoring methodology in predicting risk, regardless of traditional underwriting data.

OCTO assists insurers in leveraging a data-driven and AI approach to optimise their price modelling, offering a range of products and expertise to facilitate adoption or enhancement of existing telematics programs

<sup>11</sup>OCTO Telematics

OCTO TECHNOLOGY ENABLER

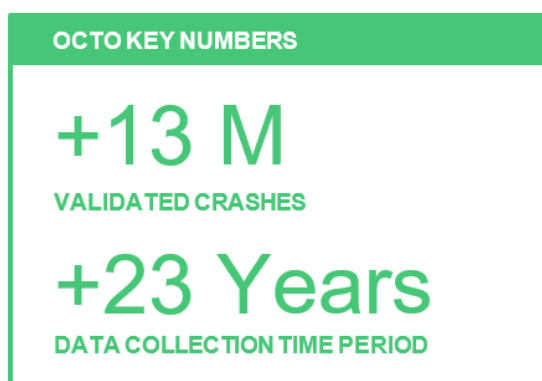
Figure 2: OCTO Technology and Customer **Process Enablement**



# Digital Claim Management

Amidst heightened inflationary pressures, 32 percent of EU consumers saw their motor insurance price increase despite their risk situation not changing<sup>12</sup>. These price increases are a result of insurers being confronted with escalating costs across the claim’s spectrum. This cost growth is driven by several factors, including prolonged settlement durations due to disruptions in the supply chain and increased expenses for spare parts and the higher cost of labour. Against the backdrop of increasing customer expectations, this presents a formidable challenge, as policyholders perceive the claims process as a critical “moment of truth” and a pivotal touchpoint in their policy journey.

OCTO’s claims management solutions epitomises an integrated digital strategy, grounded in a vast repository of telematic data of more than five million registered crash events, amassed over two decades. This data collected via onboard devices or smartphones, serve as the cornerstone for training proprietary AI algorithms, which expedite claims processing, prevent insurance fraud, evaluate damages, and optimise settlement procedures.



## OCTO end-to-end claims performance

-20% total claim cost end-to-end, extending the existing settlement-time benefit into a cost-efficiency claim.

90%+ crash-to-claim matching accuracy and validation in less than 10 seconds.

1M+ Motor claims\* per year handled by Sedgwick, supporting the UK partnership narrative and the Crash -> FNOL -> Sedgwick workflow.

ROI of 3-5 dollars for every dollar invested in claims optimisation use cases.

\*(<https://www.sedgwick.com/en-gb/loss-adjusting/auto-claims/>)

With more than 90% crash-to-claim matching accuracy and validation in less than 10 seconds, OCTO is reshaping motor claims by turning a reactive process into a data-driven workflow that improves both customer experience and operating performance. The end-to-end claims model is built around Sedgwick's handling of motor claims at massive scale, strengthening the Crash → FNOL → Sedgwick journey. This approach translates the established settlement-time benefit into a clear cost-efficiency narrative, with the potential to reduce total claim costs by 20% and deliver an ROI of 3-5 times the original investment\* in claims optimisation use cases.

Using AI, OCTO is able to accurately reconstruct accident scenes, allowing for fast damage estimations following early First Notification of Loss (FNOL) and assisting drivers at the scene through specialised operators of OCTO partner ecosystem. Furthermore, policyholders can submit video footage through their smartphones, aiding the algorithm in identifying damages and calculating repair costs, also empowering claim adjusters with relevant information for more efficient claims handling. In addition, the OCTO Fraud Shield algorithm provides a higher probability of detecting fraudulent activity, assisting and accelerating fraud investigations.



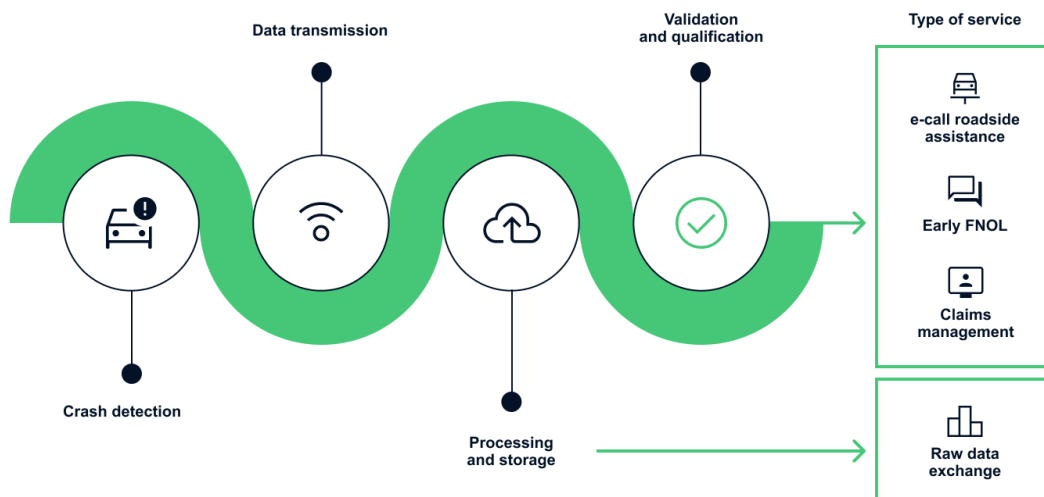


OCTO utilises its technology and knowledge to offer insurers trusted evidence in the form of official documentation and expert consultations. This combats fraud and resolves legal disputes, in compliance with relevant local laws such as the Italian Private Insurance Code, which recognises

telematics data as foolproof in accident cases. The streamlined process (figure 3) of OCTO crash detections enhances claims management efficiency and mitigates fraud risks, with an average improvement of more than 25 percent, depending on the level of adoption.

CRASH & CLAIM | CRASH DETECTION

Figure 3: OCTO Crash Detection



# OCTO

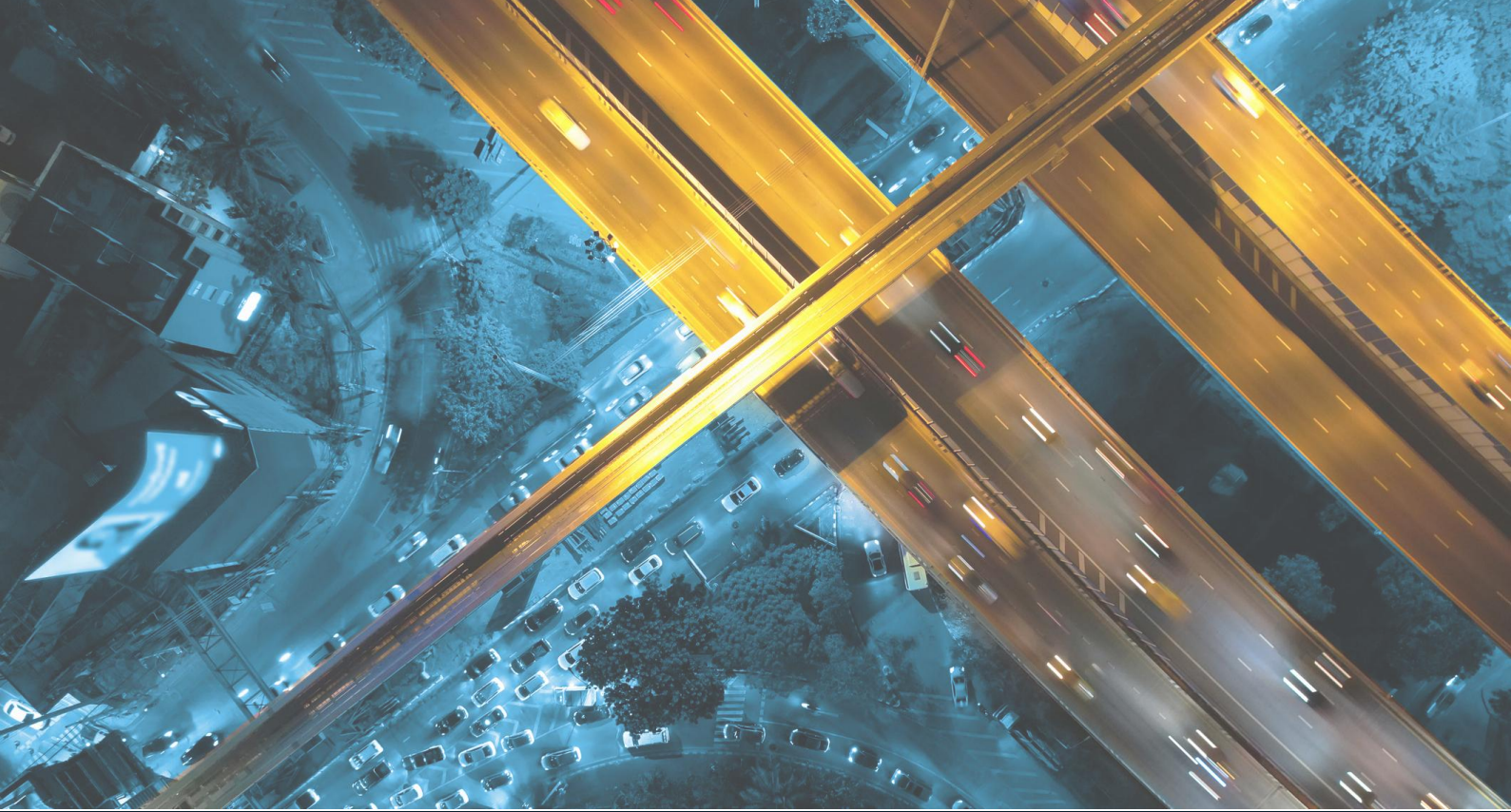
## Takeaway

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In the intricate tapestry of market dynamics, insurers discover fertile ground for growth by turning challenges into opportunities for differentiation. OCTO Advisory and AI solutions provide insurers with profound insights into their customer base, allowing for personalised offerings that resonate with individual preferences and values.

In addition, OCTO solutions streamline operational processes for claim management, pricing and underwriting, enhancing efficiency and effectiveness. This streamlined approach not only positively impacts the combined ratio but also improves the overall policyholder experience. By making processes more transparent and quicker, OCTO solutions foster greater trust and satisfaction among policyholders, ultimately leading to stronger customer relationships and improved business outcomes.





## ABOUT OCTO

For 23 years, we have been developing integrated solutions that allow us to always stand by our customers, supporting them in seizing the opportunities outlined by intelligent mobility and digital transformation. Artificial Intelligence, IoT, and Data Analytics are the key elements used to develop services and products capable of addressing the challenges of Smart Cities and Smart Mobility operators.

Our scalable analytics platform enables insurers, automakers, rental companies and public administrations, to increase productivity and improve safety, while enhancing the vehicle usage and user experience.

Finally, a clear ESG strategy guides our market proposition towards the development of solutions focused on energy transition and data-driven smart urban planning. Our Vision Zero: Zero incidents, Zero traffic, Zero pollution is fully aligned with global sustainability goals.

OCTO currently has over 6 million connected users and holds the largest global database of telematics data, derived from 610 billion kilometres of driving data, 1.7 billion scored trips, 1.48 million scored accounts and over 525,000 certified claims. OCTO has delivered 160+ motor insurance programmes across 20+ countries.

Discover more at [www.octotelematics.com](http://www.octotelematics.com)

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