EIOPA Digitalisation Market Monitoring Survey

EIOPA survey on digitalisation of the insurance sector

Read and fill

Information about the reporting organisation

Name of the reporting organisation

Legal Entity Identifier (LEI)

Jurisdiction of establishment

Contact details (email and telephone)

Annual Gross Written Premiums

Line of Business activity

Target customer

Would you be willing to engage with EIOPA on follow-up discussions?

Date of submission

Instructions

Background

Rapid technological developments have a significant impact on the entire insurance value chain. In order to keep pace with this rapid change and in order to make sure that the regulatory and supervisory frameworks account for both the opportunities and risks that innovation brings, EIOPA has developed the present survey. The results of the survey are also used by EIOPA to comply with Article 9(a) of EIOPA's Regulation, which states that EIOPA should collect, analyse and report on consumer trends as well as to comply with Article 31 of EIOPA's Regulation, which states that the authority should fulfil a coordination role and should centralise information received.

Objective

The present survey aims to collect information on financial innovations in the European insurance sector. It seeks to assess the maturity of different technologies and business models in the market, the opportunities and risks arising from them as well as their evolution / trends over time.

The references to a digital transformation strategy or similar documents do not set any expectation on the existence of any documentation not foreseen in existing regulation. The answers provided will be analysed and aggregated in a way that individual information cannot be identified. The level of aggregation, i.e. EU or Member State level, is to be discussed during the analysis as it depends on the level of participation of the different Members States.

By collecting harmonised data at European level, the findings of the survey will enable EIOPA to conduct an evidence-based approach to the supervision of the use of new technologies and innovations of the European insurance sector. It will also help EIOPA to identify potential regulatory obstacles preventing stakeholders to harness the benefits of financial innovations. This will ultimately support EIOPA in creating better outcomes for consumers and a higher level of consumer protection in the EU as the survey results will allow EIOPA to carry out risk-based supervision.

How to complete this survey

The survey covers both life insurance and non-life insurance lines of business. In case you are only active in non-life insurance lines of business or in life insurance lines of business, please leave blank the questions that refer to the line of business you are not active in.

The survey covers commmercial relationship with both retail and corporate clients, unless otherwise specified in the question.

Please answer to the questions of this survey based on the situation in your organisation in 2022.

The information provided in the questions that include a drop-down list may be an approximation to the situation that you have observed in your organisation. Please try to complete the questions on a best effort basis.

Timeline

- Q1 2023 - Launch of the survey
- 30 June - Deadline to submit the responses

Artificial intelligence	'artificial intelligence system' (AI system) means a system that is designed to operate with elements of autonomy and that, based on machine and/or human-provided data and inputs, infers how to achieve a given set of objectives using machine learning and/or logic- and knowledge based approaches, and produces system-generated outputs such as content (generative AI systems), predictions, recommendations or decisions, influencing the environments with which the AI system interacts;
Application Programming Interface (API)	APIs are mechanisms that enable two software components to communicate with each other using a set of definitions and protocols, i.e. a set of coded routines that receives requests from and sends responses to other programs. API designers implement that code through standardized programming statements that expose functions that make sense for accessing the platform in question.
Cloud computing	Services provided using cloud computing, that is, a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction
Digital distribution channels	Distribution of insurance products that take place online via digital means such as insurance undertaking's websites, comparison websites, other websites / platforms or mobile phone applications

Digital platforms and Ecosystems	Digital platforms and ecosystems are interconnected set of services that allows users to fulfill a variety of needs in one integrated experience. Consumer ecosystems currently emerging around the world tend to concentrate on needs such as travel, healthcare, or housing
Digital transformation	Digital transformation is the process of using digital technologies to create new or to modify existing business processes, culture, and customer experiences to realise cost efficiencies, offer additional products, increase the quality of customer service and products etc.
Distributed Ledger Technology	Distributed ledgers - sometimes known as 'Blockchains' - are essentially records, or ledgers, of electronic transactions, very similar to accounting ledgers. Their uniqueness lies in the fact that they are maintained by a shared or 'distributed' network of participants (so-called 'nodes') and not by a centralized entity, meaning that there is no central validation system. Another important feature of distributed ledgers is the extensive use of cryptography, i.e. computer-based encryption techniques such as public/private keys and hash functions, to store assets and validate transactions
Insurtech start-up	Recently created SMEs with innovative business models, often involving the use of digital and new technologies to offer and/or support the development and distribution of insurance products and services
Internet of Things (IoT)	Is the networking of telematics devices, vehicles, buildings, and other items embedded with electronics, software, sensors, wearables actuators, and network connectivity that enable these objects to (a) collect and exchange data and (b) send, receive, and execute commands

Mixed Activity Groups (MAGs)	A MAG refers to a group of undertakings (a parent undertaking plus its subsidiary undertakings) conducting both financial and non-financial services. For the purpose of this survey the focus is on technology-enabled mixed activity groups in order to capture the impact of the use of digitalisation and technology and the impact of a large customer base on their business models and on the provision of financial services.
Non-Fungible Tokens (NFTs)	NFTs are cryptographic tokens on a blockchain, which are associated with a particular digital or physical asset. They differ from classical crypto-currencies such as Bitcoin in their instrinsich features: while Bitcoin is a standard coin in which all the coins are equivalent and indistinguishable, NFTs are unique and cannot be exchanged like-for-like (equivalently, non-fungible), making them suitable for identifying something or someone in a unique way. More specifically, by using NFTs, a creator can prove the existence and ownership of digital assets in the form of e.g. arts, real estate, images etc.

Open Insurance	EIOPA considers open insurance as accessing and sharing insurance-related personal and non-personal data usually via APIs. This could include: - "Insurance Policy Information Services" where insurers and intermediaries could be required or could provide voluntarily other insurers/intermediaries or third-party providers access (via APIs) to their users' underwritten insurance policies e.g. information such as insured object, coverages, claims history, data on suitability assessment, know your customer (KYC) data, Internet of Things Data (e.g. car black-box data); - Switching services, where consumers could automatically transfer their personal and non-personal data from one insurer/intermediary to another; - Increased data exchange through APIs between insurers/intermediaries, e.g. better interaction with insurance platforms and ecosystems (Business-to-Business data sharing); - (Public) comparison websites, where insurers and intermediaries are required by legislation to make standardised insurance product information available to the public (e.g. to consumers, supervisors and third parties) to facilitate like-for-like comparison of products (e.g. cost, fees, product features).
Parametric insurance	Parametric insurance is a type of insurance that does not indemnify the pure loss, but ex ante agrees to make a lump sum payment upon the occurrence of a triggering, objective and predefined event. A triggering event can be in relation to temperature (e.g. 30 days of drought in a given region), rainfall, wind speed, earthquake (e.g. up from certain magnitudes) or flight delay time (e.g. 45 minutes).

Peer-to-Peer insurance	For the purpose of this exercise, P2P insurance should be considered as risk sharing digital network where a group of individuals with mutual interests or similar risk profiles pool their "premiums" together to insure against a risk/to share the risk among them, and where profits are commonly redistributed at the end of the year in case of good claims experience. Traditional mutual insurers should not be considered as P2P insurance for the purpose of this exercise. Examples of P2P insurance companies can be found in the following link: https://tracxn.com/d/trending-themes/Startups-in-P2P-Insurance
RegTech	Regulatory Technology (RegTech) means any range of applications of technology-enabled innovation for regulatory, compliance and reporting requirements implemented by a regulated institution.
Robo advisors	Phenomenon whereby advice is provided to consumers without, or with little, human intervention and providers rely instead on computer-based algorithms and/or decision trees.
Sustainable finance	Sustainable finance refers to the process of taking environmental, social and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects. Environmental considerations might include climate change mitigation and adaptation, as well as the environment more broadly, for instance the preservation of biodiversity, pollution prevention and the circular economy. Social considerations could refer to issues of inequality, inclusiveness, labour relations, investment in human capital and communities, as well as human rights issues. The governance of public and private institutions – including management structures, employee relations and executive remuneration – plays a fundamental role in ensuring the inclusion of social and environmental considerations in the decision-making process

Strategy&Channels

Digital transformation strategy and digital distribution and communication channels

DIGITAL TRANSFORMATION

1. Does your organisation have a digital transformation strategy or other relevant policy document to guide the adoption of digital technologies and business models? If yes, please briefly explain when it was adopted and key themes addressed

2. In case your oganisation has or plans to develop a digital transformation strategy in the next 3 years, please select from 1-5 (1=low relevance, 5= very relevant, it is possible to repeat values) the relevance of the below objectives for your digital transformation strategy

Objectives	Relevance
Generate new digital value (e.g. new revenue sources, cost reduction etc).	⊙ 1 ⊙ 2 ⊙ 3 ⊙ 4 ⊙ 5
Improve costumer experience	⊙ 1 ⊙ 2 ⊙ 3 ⊙ 4 ⊙ 5

Improve operational resilience	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Optimise asset utilisation	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Reduce risks	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Other	○ 1 ○ 2 ○ 3 ○ 4 ○ 5

If you have any additional comments or inputs to the table above, please include here.

3. In case your oganisation has or plans to develop a digital transformation strategy in the next 3 years, please select from 1-5 (1=low relevance, 5= very relevant, it is possible to repeat values) the relevance of the below organisational and technical enablers in order to help you implement the strategy

Digitalisation enabler	Relevance
Funding	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Corporate culture	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Talent and skills	○ 1 ○ 2 ○ 3 ○ 4 ○ 5

Outsourcing	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Cloud computing	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Artificial Intelligence	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Customer Platforms	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Ecosystem integration	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
IoT	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Security	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Other	○ 1 ○ 2 ○ 3 ○ 4 ○ 5

If you have any additional comments or inputs to the table above, please include here.

4. Please indicate approximately how much % of your annual GWP have you invested in the digital transformation of your organisation (e.g. investments in IT infrastructure, outsoucing of new innovations and technologies, aquisition / venture capital investments in innovatice firms etc) during the past 3 years, and how much do you expect to invest in the next 3 years.

	Investments in the last 3 years	Expected evolution in the next 3 years
Investments in Digital Transformation	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100% ○ > 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100% ○ > 100%

If you have any additional comments or inputs to the table above, please include here.

5. Please indicate whether you use any of the following technologies and business models, and then select which are the top 5 technology areas where you will invest the most resources in the next 3 years.

	Are the following technologies and innovative business models used in your organisation?	Top 5 technology areas in which you will invest the most resources (only select 5, with 1 being where you will invest the most)
Artificial Intelligence	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Blockchain/DLT	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Cloud computing	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
	○ Yes, we have already developed	○ 1 ○

Technology	Development status	Rating
Internet of Things (IoT) / telematics	○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	○ 2 ◉ 3 ◉ 4 ◉ 5
Intelligent document processing / Robotic process automation	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	◉ 1 ◉ 2 ◉ 3 ◉ 4 ◉ 5
Digital Platforms / website	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	◉ 1 ◉ 2 ◉ 3 ◉ 4 ◉ 5
CRM systems	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	◉ 1 ◉ 2 ◉ 3 ◉ 4 ◉ 5
Regtech	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	◉ 1 ◉ 2 ◉ 3 ◉ 4 ◉ 5
Robo advisors	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	◉ 1 ◉ 2 ◉ 3 ◉ 4 ◉ 5
Chatbots	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	◉ 1 ◉ 2 ◉ 3 ◉ 4 ◉ 5
Biometrics (e.g. for digital identification processes)	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	◉ 1 ◉ 2 ◉ 3 ◉ 4 ◉ 5
	○	

Drones	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Telemedicine	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Quantum computing	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	○ 1 ○ 2 ○ 3 ○ 4 ○ 5
Other	○ Yes, we have already developed ○ Not yet, but we expect to develop it in the next 3 years ○ No plans to develop it within the next 3 years	○ 1 ○ 2 ○ 3 ○ 4 ○ 5

If you have any additional comments or inputs to the table above, please include here.

DIGITAL DISTRIBUTION CHANNELS

6. Please indicate approximately what proportion of your total GWP for the different lines of business take place via all your digital distribution channels (company's own website, social media, mobile apps, comparisong websites, websites from other companies / intermediaries which are not comparison websites or others), and how they have evolved or are expected to evolve over time (in terms of increase or decrease in % points)

	Proportion of GWP of online sales of total GWP	Expected evolution in the next 3 years?
	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○	○ -91% - 100% ○ -81% - 90% ○ -71% - 80% ○ -61% - 70% ○ -51% - 60% ○ -41% - 50% ○ -31% - 40% ○ -21% - 30% ○ -11% - 20% ○

Life Insurance	31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100% ○ > 100%	-0% - 10% ○ No Change ○ +0% - 10% ○ +11% - 20% ○ +21% - 30% ○ +31% - 40% ○ +41% - 50% ○ +51% - 60% ○ +61% - 70% ○ +71% - 80% ○ +81% - 90% ○ +91% - 100% ○ > 100%
Non-Life Insurance	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100% ○ > 100%	○ -91% - 100% ○ -81% - 90% ○ -71% - 80% ○ -61% - 70% ○ -51% - 60% ○ -41% - 50% ○ -31% - 40% ○ -21% - 30% ○ -11% - 20% ○ -0% - 10% ○ No Change ○ +0% - 10% ○ +11% - 20% ○ +21% - 30% ○ +31% - 40% ○ +41% - 50% ○ +51% - 60% ○ +61% - 70% ○ +71% - 80% ○ +81% - 90% ○ +91% - 100% ○ > 100%
Motor Insurance	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90%	○ -91% - 100% ○ -81% - 90% ○ -71% - 80% ○ -61% - 70% ○ -51% - 60% ○ -41% - 50% ○ -31% - 40% ○ -21% - 30% ○ -11% - 20% ○ -0% - 10% ○ No Change ○ +0% - 10% ○ +11% - 20% ○ +21% - 30% ○ +31% - 40% ○

	○ 91% - 100% ○ > 100%	+41% - 50% ○ +51% - 60% ○ +61% - 70% ○ +71% - 80% ○ +81% - 90% ○ +91% - 100% ○ > 100%
Household Insurance	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100% ○ > 100%	○ -91% - 100% ○ -81% - 90% ○ -71% - 80% ○ -61% - 70% ○ -51% - 60% ○ -41% - 50% ○ -31% - 40% ○ -21% - 30% ○ -11% - 20% ○ -0% - 10% ○ No Change ○ +0% - 10% ○ +11% - 20% ○ +21% - 30% ○ +31% - 40% ○ +41% - 50% ○ +51% - 60% ○ +61% - 70% ○ +71% - 80% ○ +81% - 90% ○ +91% - 100% ○ > 100%
Accident and health insurance	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100% ○ > 100%	○ -91% - 100% ○ -81% - 90% ○ -71% - 80% ○ -61% - 70% ○ -51% - 60% ○ -41% - 50% ○ -31% - 40% ○ -21% - 30% ○ -11% - 20% ○ -0% - 10% ○ No Change ○ +0% - 10% ○ +11% - 20% ○ +21% - 30% ○ +31% - 40% ○ +41% - 50% ○ +51% - 60% ○ +61% - 70% ○ +71% - 80% ○ +81% - 90% ○ +91% - 100% ○

			> 100%
Other non-life insurance	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100% ○ > 100%		○ -91% - 100% ○ -81% - 90% ○ -71% - 80% ○ -61% - 70% ○ -51% - 60% ○ -41% - 50% ○ -31% - 40% ○ -21% - 30% ○ -11% - 20% ○ -0% - 10% ○ No Change ○ +0% - 10% ○ +11% - 20% ○ +21% - 30% ○ +31% - 40% ○ +41% - 50% ○ +51% - 60% ○ +61% - 70% ○ +71% - 80% ○ +81% - 90% ○ +91% - 100% ○ > 100%

If you have any additional comments or inputs to the table above, please include here.

7. From your total GWP sales that take place via digital distribution channels, please indicate approximately what proportion take place via the different digital channels (i.e. the total for each line of business should add 100%).

	Company's own website / social media / digital platform / call center / smart phone app	Comparison websites	Websites / platforms from other companies / intermediaries (which are not comparison websites) such as airlines, retailers, etc
Life Insurance	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%
Non Life Insurance	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%
	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30%

Motor Insurance	○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%
Household Insurance	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%
Accident and health insurance	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%
	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30%

| Other non-life insurance | ○ 31% - 40%
○ 41% - 50%
○ 51% - 60%
○ 61% - 70%
○ 71% - 80%
○ 81% - 90%
○ 91% - 100% | ○ 31% - 40%
○ 41% - 50%
○ 51% - 60%
○ 61% - 70%
○ 71% - 80%
○ 81% - 90%
○ 91% - 100% | ○ 31% - 40%
○ 41% - 50%
○ 51% - 60%
○ 61% - 70%
○ 71% - 80%
○ 81% - 90%
○ 91% - 100% |

If you have any additional comments or inputs to the table above, please include here.

8. There is reportedly an increasing trend towards embedding / cross-selling to retail customers insurance products with other non-insurance products. Please indicate in which of the following sectors this trend has had a greater impact to date (in terms of GWP of the relevant line of business), and how do you expect them to evolve in the future.

Sector	Impact to date	Expected evolution in the next 3 years?
Travel and hospitality	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Health and wellness	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Consumer products / retailers / e-commerce	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Luxury goods	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Telecommunications	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Utilities	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
	○ Very High Relevance	○

Mobility	○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Bancassurance	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Gig economy	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Real estate / Property management	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Other	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease

If you have any additional comments or inputs to the table above, please include here.

[ ]

COMMUNICATION TOOLS AND CHANNELS

9. Please indicate what is the most popular channel used by your retail customers to interact with your organisation (1=most used, 8= least used), and how do you expect them to evolve within the next 3 years

	Usage to date	Expected evolution in the next 3 years?
Email	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease

Online form in website	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Social media / Chat applications	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Chatbots	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Face to face	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Telephone	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Paper based (e.g. letter)	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease

Smartphone applications	◎ 1 ◎ 2 ◎ 3 ◎ 4 ◎ 5 ◎ 6 ◎ 7 ◎ 8	◎ Significant Increase ◎ Moderate Increase ◎ No Change ◎ Moderate Decrease ◎ Significant Decrease
Other Channels	◎ 1 ◎ 2 ◎ 3 ◎ 4 ◎ 5 ◎ 6 ◎ 7 ◎ 8	◎ Significant Increase ◎ Moderate Increase ◎ No Change ◎ Moderate Decrease ◎ Significant Decrease

If you have any additional comments or inputs to the table above, please include here.

10. Please explain how you use social media to interact with your retail customers. In particular, please specify whether you have or do you expect to have a commercial relationship with so-called "influencers" in social media to promote your products and services (if possible please indicate the how much resources (in euros) do you allocate to promote your products via influencers).

11. Please indicate whether you use mobile phone applications to interact with your customers, the number of times they are used by an average consumer, and briefly explain 2 of the most innovative or relevant services offered via the app

	Answer
How often does an average consumer uses the mobile phone app?	◎ We don't use mobile phone applications ◎ At least once a day ◎ At least once a week ◎ At least once a month ◎ At least once every 6 months ◎ At least once a year ◎ Less than once a year
What are the 2 most innovative or relevant services offered via the app? (free text)	

INSURTECH START-UPS AND BIGTECHS

12. Please provide details about your relationships with InsurTech start-ups to date, and how do you expect them to evolve over the next 3 years.

	Please indicate whether you engage in one of the below activities with InsurtTech start-ups	Evolution in the 3 next years?
Do you have commercial partnerships (e.g. joint ventures or outsourcing) with other regulated/licensed start-ups (e.g. credit institutions or payment institutions, e-money institutions or licensed insurance intermediaries) to offer or develop new products/services or explore new technologies?	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Do you form commercial partnerships (e.g. joint ventures or outsourcing) with unregulated InsurTech startups (e.g. IT service providers) to offer or develop new products/services or explore new technologies ?	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Do you directly invest in InsurTech statups (i.e. acquire shareholding)?	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Do you indirectly invest in InsurTech startups (e.g. through Venture Capital funds)?	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Have you setup your own InsurTech lab/incubator?	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease

	No plans to develop it within the next 3 years	○ Significant Decrease

If you have any additional comments or inputs to the table above, please include here.

13. Please explain the commercial relationship between your institution and BigTech firms, and how do you expect it to evolve in the next 3 years?

	Do you have a commercial relationship with BigTechs to develop these activities?	Evolution in the 3 next years?
They offer cloud computing storage services	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
They offer data analytics services (e.g. AI solutions)	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
They offer communications tools and channels (advertisements via search engine results, in-app ads, etc, marketing analytics tools)	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
They act as data vendors (e.g. selling search engine data or health wearables data)	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
They act as insurance intermediaries	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○

	No plans to develop it within the next 3 years	Significant Decrease
They act as insurance risk carriers	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Other (please specify)	○ Yes, we have already developed ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease

If you have any additional comments or inputs to the table above, please include here.

AI,DLT&IoT

New technologies

AI DEVELOPMENTS

14. Please specify in which line of business AI systems have had the biggest relevance to date in your organisation, and their expected evolution in the next 3 years?

	Use of AI systems?	Relevance to date	Expected evolution in the next 3 years?
Life Insurance	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Non Life Insurance	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Motor Insurance	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Household Insurance	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Accident and health	○ Yes, we are already using it ○	○ Very High Relevance ○ High Relevance ○ Moderate Relevance	○ Significant Increase ○ Moderate Increase ○ No Change

24

insurance	Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Moderate Decrease ○ Significant Decrease
Other non-life insurance	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Very High Relevance ○ High Relevance ○ Moderate Relevance ○ Low Relevance ○ Very Low Relevance ○ No Relevance	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease

If you have any additional comments or inputs to the table above, please include here.

15. In case you use AI systems in any of the below use cases, please indicate their source and level of automation

	Source	Level of automation
Underwriting	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
(Semi) Automated Denial / Approval	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Underwriting Risk Classification	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Pricing	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models

Rating Class Determination	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Price Optimisation (e.g. individual price elasaticity analysis)	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Customer lifetime value estimation	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Churn retention modelling	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Sales and distribution	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○

		◯ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Targeted Online Advertising	◯ Developed in-house ◯ Outsourced from a third-party service provider	◯ Automation (no human intervention on execution ◯ Augmentation (model advises or supports human who makes decision - model suggests answer) ◯ Both automation and augmentation (e.g. depends on distribution channel) ◯ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Provision of cross-selling and up-selling offers to existing customers	◯ Developed in-house ◯ Outsourced from a third-party service provider	◯ Automation (no human intervention on execution ◯ Augmentation (model advises or supports human who makes decision - model suggests answer) ◯ Both automation and augmentation (e.g. depends on distribution channel) ◯ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Identification of Recipients of Mail or Phone Advertising	◯ Developed in-house ◯ Outsourced from a third-party service provider	◯ Automation (no human intervention on execution ◯ Augmentation (model advises or supports human who makes decision - model suggests answer) ◯ Both automation and augmentation (e.g. depends on distribution channel) ◯ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Customer service	◯ Developed in-house ◯ Outsourced from a third-party service provider	◯ Automation (no human intervention on execution ◯ Augmentation (model advises or supports human who makes decision - model suggests answer) ◯ Both automation and augmentation (e.g. depends on distribution channel) ◯ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Call centre sentiment analysis	◯ Developed in-house ◯	◯ Automation (no human intervention on execution ◯ Augmentation (model advises or supports human who makes decision - model suggests answer) ◯

	Outsourced from a third-party service provider	Both automation and augmentation (e.g. depends on distribution channel) ◉ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Agent / Department allocation	◉ Developed in-house ◉ Outsourced from a third-party service provider	◉ Automation (no human intervention on execution ◉ Augmentation (model advises or supports human who makes decision - model suggests answer) ◉ Both automation and augmentation (e.g. depends on distribution channel) ◉ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Chatbots	◉ Developed in-house ◉ Outsourced from a third-party service provider	◉ Automation (no human intervention on execution ◉ Augmentation (model advises or supports human who makes decision - model suggests answer) ◉ Both automation and augmentation (e.g. depends on distribution channel) ◉ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Loss prevention	◉ Developed in-house ◉ Outsourced from a third-party service provider	◉ Automation (no human intervention on execution ◉ Augmentation (model advises or supports human who makes decision - model suggests answer) ◉ Both automation and augmentation (e.g. depends on distribution channel) ◉ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Identification of High-Risk Customers	◉ Developed in-house ◉ Outsourced from a third-party service provider	◉ Automation (no human intervention on execution ◉ Augmentation (model advises or supports human who makes decision - model suggests answer) ◉ Both automation and augmentation (e.g. depends on distribution channel) ◉ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
		◉ Automation (no human intervention on execution ◉

Risk-Mitigation Advice to Consumers	◉ Developed in-house ◉ Outsourced from a third-party service provider	Augmentation (model advises or supports human who makes decision - model suggests answer) ◉ Both automation and augmentation (e.g. depends on distribution channel) ◉ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Claims management	◉ Developed in-house ◉ Outsourced from a third-party service provider	◉ Automation (no human intervention on execution ◉ Augmentation (model advises or supports human who makes decision - model suggests answer) ◉ Both automation and augmentation (e.g. depends on distribution channel) ◉ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
(semi) automated claims approval / denial	◉ Developed in-house ◉ Outsourced from a third-party service provider	◉ Automation (no human intervention on execution ◉ Augmentation (model advises or supports human who makes decision - model suggests answer) ◉ Both automation and augmentation (e.g. depends on distribution channel) ◉ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
(semi) automated invoice verification	◉ Developed in-house ◉ Outsourced from a third-party service provider	◉ Automation (no human intervention on execution ◉ Augmentation (model advises or supports human who makes decision - model suggests answer) ◉ Both automation and augmentation (e.g. depends on distribution channel) ◉ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Determine Settlement Amount	◉ Developed in-house ◉ Outsourced from a third-party service provider	◉ Automation (no human intervention on execution ◉ Augmentation (model advises or supports human who makes decision - model suggests answer) ◉ Both automation and augmentation (e.g. depends on distribution channel) ◉ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
		◉

Evaluation of Images of the Loss	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Loss reserving	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Liability allocation	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Fraud detection	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Claims scoring	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○

		○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Anomaly detection	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Social Network analytics	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models
Social Media analytics	○ Developed in-house ○ Outsourced from a third-party service provider	○ Automation (no human intervention on execution ○ Augmentation (model advises or supports human who makes decision - model suggests answer) ○ Both automation and augmentation (e.g. depends on distribution channel) ○ Challenger model - used for the purpose of future selection / engineer or for comparison of results with other mathematical models

If you have any additional comments or inputs to the table above, please include here.

16. Irrespective of the line of business, please indicate whether you use or plan to use the Machine
Learning algorithms mentioned in the table below across the different areas of the insurance value chain

	Naïve Bayes Algorithm	Advanced regressions	Support Vector Machine	Tree-based algorithms (decision trees, random forest, gradient boosting trees)	Neural Networks	Deep Learning	K Means Clustering	Other
Underwriting	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years
Pricing	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years
Sales and distribution	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years
Customer service	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years
Loss prevention	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years
Claims management	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Yes, we are already doing it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years
	○ Yes, we are already doing it ○	○ Yes, we are already doing it ○	○ Yes, we are already doing it ○	○ Yes, we are already doing it	○ Yes, we are already doing it ○	○ Yes, we are already doing it ○	○ Yes, we are already doing it ○	○ Yes, we are already doing it ○

Fraud detection	Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years	Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years

34

If you have any additional comments or inputs to the table above, please include here.

>

AI GOVERNANCE

17. Please indicate whether you have developed or you are planning to develop an AI strategy / Data Strategy / IT strategy or other relevant policy document within your organisation to guide the use of AI systems in your organisation?

	Have you developed these internal policy documents to guide the use of AI?
AI strategy	○ Yes, we are have already developed it ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years
Data strategy	○ Yes, we are have already developed it ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years
IT strategy	○ Yes, we are have already developed it ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years
Other	○ Yes, we are have already developed it ○ Not yet, but we expect to develop it within the next 3 years ○ No plans to develop it within the next 3 years

If you have any additional comments or inputs to the table above, please include here.

>

18. Insurance undertakings' own risk and solvency assessments (ORSA) are an important aspect of corporate governance and risk management. Please explain how do you address the use of AI (or digitalisation more broadly) in the ORSA of your organisation, and/or whether you consider ORSA a useful document to address the impact of the use of AI in your organisation.

>

19. EIOPA's stakeholder group on digital ethics in insurance developed a report in 2021 outlining 6 governance principles for an ethical and trustworthy AI in the European Insurance sector (https://www. eiopa.europa.eu/document-library/report/artificial-intelligence-governance-principles-towards-ethical-and_en). These principles are similar to the ones included in other initiatives developed by other international institutions such as the OECD or the European Commission. Please indicate if your governance policy document has documented measures to address such principles, and, for high impact AI applications, provide details of concrete governance and risk management measures put in place to implement them. High impact AI applications are such applications which can have a significant impact on consumers/firms based on the potential harm that a specific AI use case could have, taking into account both the severity of that harm and the likelihood that harm could occur. For example, the impact of the use

of AI on pricing and underwriting is argualbly higher than when AI is used on back-office operations such us to direct an email or call to the correct department.

AI governance principles	Does your policy document cover these principles?	For high-impact AI applications, please briefly explain the governance and risk management measures put in place to implement each principle (e.g. fairness metrics, use of synthetic data, use of guardrails, treatment of AI outputs as inputs of other AI systems, explainability tools such as SHAP, LIME, A-B testing etc.)
Proportionality	⊙ Yes ⊙ No	
Fairness and Non-discrimination	⊙ Yes ⊙ No	
Transparency and explainability	⊙ Yes ⊙ No	
Human oversight	⊙ Yes ⊙ No	
Data management and record keeping	⊙ Yes ⊙ No	
Robustness and performance	⊙ Yes ⊙ No	

If you have any additional comments or inputs to the table above, please include here.

20. Concerning the usage of high-impact AI applications in your organisation, please indicate the level of involvement/responsibility of your Management / Executive Board and, where applicable, other staff members

	Level of involvement
Management / Executive Board	⊙ Approval ⊙ Consulted ⊙ Informed ⊙ No involvement
Head of IT department	⊙ Approval ⊙ Consulted ⊙ Informed ⊙

	No involvement
Data Protection Officer	○ Approval ○ Consulted ○ Informed ○ No involvement
AI / Data officer	○ Approval ○ Consulted ○ Informed ○ No involvement
Compliance function	○ Approval ○ Consulted ○ Informed ○ No involvement
Risk management function	○ Approval ○ Consulted ○ Informed ○ No involvement
Audit function	○ Approval ○ Consulted ○ Informed ○ No involvement
Actuarial function	○ Approval ○ Consulted ○ Informed ○ No involvement
AI developers	○ Approval ○ Consulted ○ Informed ○ No involvement
End users	○ Approval ○ Consulted ○ Informed ○ No involvement

If you have any additional comments or inputs to the table above, please include here.

Blockchain and smart contracts

CRYPTO ASSETS

21. Please let us know the approach of your organisation towards crypto assets:

	Approach
	○

Do you offer insurance products covering losses of scams, hacks, or theft of crypto-assets in your jurisdiction?	○ Yes, we already do it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years
Do you offer liability insurance to crypto asset service providers?	○ Yes, we already do it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years
Do you offer the possibility to pay insurance premiums and claims with crypto-assets in your jurisdiction?	○ Yes, we already do it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years
Do you offer consumers the choice to invest directly or indirectly in crypto-assets (e.g. via unit-linked life insurance products)?	○ Yes, we already do it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years
Do you invest directly or indirectly in crypto assets?	○ Yes, we already do it ○ Not yet, but we expect to do it within the next 3 years ○ No plans to do it within the next 3 years

If you have any additional comments or inputs to the table above, please include here.

22. In case you use or invest directly or indirectly in crypto assets or you offer the possibility to your customers to undertake such investments, please explain the prudential treatment given to these investments i.e. please indicate on which investment category the assets are classified for SCR calculation purposes and the assessment performed in the ORSA

DISTRIBUTED LEDGER TECHNOLOGY/BLOCKCHAIN/DECENTRALISED FINANCE/METAVERSE /WEB3

23. Other than the crypto assets use cases mentioned above or P2P in the question below, please tell us any Distributed Ledger Technology / Blockchain, Decentralised Finance (DEFI) / Metaverse / Web3 / NFTs use cases (2 or more use cases) that you have implemented or that you plan to implement within the next 3 years in your organisation:

a) Level of deployment
b) if it is developed in-house or outsourced to a third party
c) The purpose and the output of each use case

	Use Case Name	Level of development	Source	Purpose and output of the use case (free text)
Use Case 1		○ Yes, we are already using it ○ Not yet, but we plan to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Developed in-house ○ Outsourced from a third party service provider	
Use Case 2		○ Yes, we are already using it ○ Not yet, but we plan to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Developed in-house ○ Outsourced from a third party service provider	
Other		○ Yes, we are already using it ○ Not yet, but we plan to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Developed in-house ○ Outsourced from a third party service provider	

If you have any additional comments or inputs to the table above, please include here.

24. Please tell us if you offer P2P services, specifying if you use or not DLT and if you do it in a "centralised" manner (i.e. as an insurance risk carrier or an intermediary) or "decentralised" manner (e.g. as a technical service provider to a pool of consumers)

	Do you offer P2P insurance products/services?	Do you use DLT / Blockchain when offering P2P?
Answer	○ Yes, as a regulated intermediary ○ Yes, as a regulated insurance undertaking ○ Yes, as a technical service provider (i.e. not under Solvency II/IDD) ○ No, but expecting to offer in the next 3 years ○ No	○ Yes, as a regulated intermediary ○ Yes, as a regulated insurance undertaking ○ Yes, as a technical service provider (i.e. not under Solvency II/IDD) ○ No, but expecting to offer in the next 3 years ○ No

If you have any additional comments or inputs to the table above, please include here.

Internet of Things

25. What percentage of your policyholders has an insurance product linked to an IoT device– e.g. via telematics for motor or wearable technology in health, or flood detection sensors in the household, or other connected devices for either product? What you expect that percentage to be in 3 years time? Please also indicate on average what is the like-for-like difference in price between a product using telematics / wearables / other connected devices and another product without them?

	% of policyholders per lob (e.g. % of total motor insurance customers)	Types of services offered (e.g. pricing, coaching etc.)	Expected (3 years)	Average like-to-like difference in price when using telematics vs non using telematics
Motor Insurance	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%
Health Insurance	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%
	○ 0% ○ 0% - 10% ○ 11% - 20%	○ 0% ○ 0% - 10% ○ 11% - 20%	○ 0% ○ 0% - 10% ○ 11% - 20%	○ 0% ○ 0% - 10% ○ 11% - 20%

Household Insurance	○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%
Other	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%	○ 0% ○ 0% - 10% ○ 11% - 20% ○ 21% - 30% ○ 31% - 40% ○ 41% - 50% ○ 51% - 60% ○ 61% - 70% ○ 71% - 80% ○ 81% - 90% ○ 91% - 100%

Note: The table above represents four columns of radio button options. The first column of the "Household Insurance" and "Other" rows, as well as an additional fourth column, are shown below:

Household Insurance (4th column): ○ 21% - 30%, ○ 31% - 40%, ○ 41% - 50%, ○ 51% - 60%, ○ 61% - 70%, ○ 71% - 80%, ○ 81% - 90%, ○ 91% - 100%

Other (4th column): ○ 0%, ○ 0% - 10%, ○ 11% - 20%, ○ 21% - 30%, ○ 31% - 40%, ○ 41% - 50%, ○ 51% - 60%, ○ 61% - 70%, ○ 71% - 80%, ○ 81% - 90%, ○ 91% - 100%

42

If you have any additional comments or inputs to the table above, please include here.

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26. Please indicate whether you offer any of the below parametric insurance products (also known as index insurance) with pre-specified payouts based upon a trigger event, and their expected evolution (in terms of GWP) over time

	Do you offer these parametric products?	Expected evolution in the 3 next years?
Flood Insurance	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Earthquake Insurance	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Travel / Flight delays insurance	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Severe Storms Insurance	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease
Other	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Significant Increase ○ Moderate Increase ○ No Change ○ Moderate Decrease ○ Significant Decrease

If you have any additional comments or inputs to the table above, please include here.

<div style="border:1px solid #ccc; height:70px;"></div>

Cyber

Cyber Insurance

27. Please list the top 5 cyber coverages sold, the relevant target market (B2B, retail mix, etc.), any relevant claims specificities (higher/lower frequency, higher/lower severity, etc.) associated with those products.

	Top 5 cyber products sold	Target Market	Claims Specificities
1	○ Loss of business income due to cyber incident ○ Business interruption ○ Damage to intangible assets ○ Damage to tangible assets ○ Loss due to outside provider security or system failure ○ Loss due to system failure or human error ○ Cost of ransom payment ○ Cyber specialist ○ Loss due to accidental damage of computer system ○ Financial loss from fraudolent electronic transfer of funds ○ Data restoration ○ Extra expense ○ System clean-up costs ○ Administrative investigations and penalties ○ Liability claims ○ Fines ○ Media liability ○ Wrongful collection of information ○ Media content infringment (difamatory content) ○ Violation of notification obligations ○ Other (please specify in the Comments field below)	○ B2B ○ Retail ○ Mix (B2B, retail)	
	○ Loss of business income due to cyber incident ○ Business interruption ○ Damage to intangible assets ○ Damage to tangible assets ○ Loss due to outside provider security or system failure ○ Loss due to system failure or human error ○ Cost of ransom payment ○ Cyber specialist		

2	○ Loss due to accidental damage of computer system ○ Financial loss from fraudolent electronic transfer of funds ○ Data restoration ○ Extra expense ○ System clean-up costs ○ Administrative investigations and penalties ○ Liability claims ○ Fines ○ Media liability ○ Wrongful collection of information ○ Media content infringment (difamatory content) ○ Violation of notification obligations ○ Other (please specify in the Comments field below)	○ B2B ○ Retail ○ Mix (B2B, retail)	
3	○ Loss of business income due to cyber incident ○ Business interruption ○ Damage to intangible assets ○ Damage to tangible assets ○ Loss due to outside provider security or system failure ○ Loss due to system failure or human error ○ Cost of ransom payment ○ Cyber specialist ○ Loss due to accidental damage of computer system ○ Financial loss from fraudolent electronic transfer of funds ○ Data restoration ○ Extra expense ○ System clean-up costs ○ Administrative investigations and penalties ○ Liability claims ○ Fines ○ Media liability ○ Wrongful collection of information ○ Media content infringment (difamatory content) ○ Violation of notification obligations ○ Other (please specify in the Comments field below)	○ B2B ○ Retail ○ Mix (B2B, retail)	

| 4 | ○ Loss of business income due to cyber incident
○ Business interruption
○ Damage to intangible assets
○ Damage to tangible assets
○ Loss due to outside provider security or system failure
○ Loss due to system failure or human error
○ Cost of ransom payment
○ Cyber specialist
○ Loss due to accidental damage of computer system
○ Financial loss from fraudolent electronic transfer of funds
○ Data restoration
○ Extra expense
○ System clean-up costs
○ Administrative investigations and penalties
○ Liability claims
○ Fines
○ Media liability
○ Wrongful collection of information
○ Media content infringment (difamatory content)
○ Violation of notification obligations
○ Other (please specify in the Comments field below) | ○ B2B
○ Retail
○ Mix (B2B, retail) | |
| 5 | ○ Loss of business income due to cyber incident
○ Business interruption
○ Damage to intangible assets
○ Damage to tangible assets
○ Loss due to outside provider security or system failure
○ Loss due to system failure or human error
○ Cost of ransom payment
○ Cyber specialist
○ Loss due to accidental damage of computer system
○ Financial loss from fraudolent electronic transfer of funds
○ Data restoration
○ Extra expense
○ System clean-up costs
○ | ○ B2B
○ Retail
○ Mix (B2B, retail) | |

Administrative investigations and penalties

○ Liability claims
○ Fines
○ Media liability
○ Wrongful collection of information
○ Media content infringment (difamatory content)
○ Violation of notification obligations
○ Other (please specify in the Comments field below)

If you have any additional comments or inputs to the table above, please include here.

28. Have you noticed an increase in cyber claims over the last two years? If yes, have you identified different trends depending on the size of insured undertakings (large, small and medium-sized enterprises)? Please also indicate which cyber coverages were most affected by this increase.

	Answer
Yes. Please explain	
No	

29. Do you use qualitative pricing tools?

	Answer
Yes. Please explain	
No	

29. Do you use quantitative pricing tools?

	Answer
Yes. Please explain	
No	

31. Have you undertaken any measures to address non-affirmative cyber exposures in general liability /business interruption policies?

	Answer
Yes. Please explain	
No	

32. Do you offer cyber add-ons to other insurance policies or do the terms and conditions of such policies implicitly cover cyber incidents?

	Answer

Yes. Please explain	
No offer of cyber coverages	

33. Please list the top 5 exclusions applied.

	Exclusions	Further details
1		
2		
3		
4		
5		

If you have any additional comments or inputs to the table above, please include here.

34. Do you offer different products based on type of sectors, i.e. to financial and non-financial sectors? If yes, please provide more details on the major differences.

	Answer
Yes. Please explain	
No	

35. Do you offer different products based on the size of insured undertakings (large, small and medium-sized enterprises, retail business)? If yes, please provide more details on the major differences.

	Answer
Yes. Please explain	
No	

36. How have GWP for cyber insurance products developed over the last two years? Please describe

37. Please list the top 3 cyber scenarios that have caused the highest underwriting losses to your company /group over the last two years.

	Cyber scenarios	Further details
1		
2		
3		

If you have any additional comments or inputs to the table above, please include here.

38. Do you foresee/plan any changes to your cyber underwriting strategy in the next 2-3 years? Please explain.

	Answer
Yes. Please explain	
No	

Other technologies and business models

RegTech

39. Please tell use how you use RegTech in your organisation (2 or more use cases) by specifying the following:

a) The level of development of your organisation with the use/development of RegTech solutions in each of the following areas
b) if it is developed in-house or outsourced to a third party
c) briefly explaing the purpose and output of the tool

	Use Case Name	Level of deployment	Source	Purpose and output of the use case (free text)
Use Case 1		○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Developed in-house ○ Outsourced from a third party service provider	
Use Case 2		○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Developed in-house ○ Outsourced from a third party service provider	
Other		○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	○ Developed in-house ○ Outsourced from a third party service provider	

If you have any additional comments or inputs to the table above, please include here.

Cloud computing

40. Where applicable, please select the relevant box regarding the cloud computing services that you currently use or that you plan to use in your organisation in the next 3 years.

Type of cloud computing service	Is it used in your organisation?	Types of services outsourced by your institution from cloud providers (e.g. data storage, IT security, AI solutions etc) (free text)
IaaS (Infrastructure as a Service)	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	
PaaS (Platform as a Service)	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	
SaaS (Software as a Service)	○ Yes, we are already using it ○ Not yet, but we expect to use it within the next 3 years ○ No plans to use it within the next 3 years	

If you have any additional comments or inputs to the table above, please include here.

Sustainable finance and InsurTech

41. Please indicate whether, as part of your sustainbale finance strategy, you are involved in any sustainable finance projects leveraging on the use of new technologies and business models (e.g. use of AI to process satellite images to assess crop insurance risks).

Type of cloud computing service	Are you involved in a sustainable finance project using the below technologies ?	Please briefly explain the project and how does it fit in your sustainalble finance strategy
	○ Yes, we are already using it ○	

Artificial Intelligence projects	Not yet, but we expect to use it within the next 3 years ◯ No plans to use it within the next 3 years	
Distributed Ledger Technology projects	◯ Yes, we are already using it ◯ Not yet, but we expect to use it within the next 3 years ◯ No plans to use it within the next 3 years	
Internet of Things projects	◯ Yes, we are already using it ◯ Not yet, but we expect to use it within the next 3 years ◯ No plans to use it within the next 3 years	
Other (please specify)	◯ Yes, we are already using it ◯ Not yet, but we expect to use it within the next 3 years ◯ No plans to use it within the next 3 years	

If you have any additional comments or inputs to the table above, please include here.

Application Processing Interface (API)

42. Please select which are the top 3 areas of the insurance value chain where you use APIs, and also specify whether you use them for internal purposes only or, on the contrary, you share the APIs with external / third parties

	Top 3 areas of the insurance value chain	Internal or external use
Pricing and underwriting	◯ 1 ◯ 2 ◯ 3	◯ Internal use ◯ External use with third parties / other companies ◯ Both internal and external use
Sales and distribution	◯ 1 ◯ 2 ◯ 3	◯ Internal use ◯ External use with third parties / other companies ◯ Both internal and external use
Customer service	◯ 1 ◯ 2 ◯ 3	◯ Internal use ◯ External use with third parties / other companies ◯ Both internal and external use
Loss prevention	◯ 1 ◯ 2	◯ Internal use ◯ External use with third parties / other companies

	◉ 3		◉ Both internal and external use
Claims management	◉ 1 ◉ 2 ◉ 3		◉ Internal use ◉ External use with third parties / other companies ◉ Both internal and external use
Fraud detection	◉ 1 ◉ 2 ◉ 3		◉ Internal use ◉ External use with third parties / other companies ◉ Both internal and external use

If you have any additional comments or inputs to the table above, please include here.

Open Insurance

43. Do you provide open insurance services?

	Answer
Yes. Please explain your Open Insurance Use Case(s)	
No	

Opportunities, Risks and Barriers to financial innovation

Opportunities and challenges

44. Please explain what are the main opportunities and risks arising from new technologies and business models in the insurance sector and how they have evolved over time.

Opportunities	Relevance to date (0=not relevant 5=very relevant)	Evolution in the next 3 years?
Products and services conveniently available from any location at any time	◉ 1 ◉ 2 ◉ 3 ◉ 4 ◉ 5	◉ Significant increase ◉ Moderate increase ◉ No change ◉ Moderate decrease ◉ Significant decrease
Wider range of products and services	◉ 1 ◉ 2 ◉ 3 ◉ 4 ◉ 5	◉ Significant increase ◉ Moderate increase ◉ No change ◉ Moderate decrease ◉ Significant decrease
	◉ 1 ◉	◉ Significant increase ◉

Increased personalisation of products and services	○ 2 ○ 3 ○ 4 ○ 5	Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Lower operational costs / more efficient processes	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
New distribution channels or distribution models	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Financial inclusion	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Faster processes	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Improved regulatory compliance	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Enhanced risk mitigation and prevention	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Increased customer engagement	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Enhanced risk assessments	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
	○ 1 ○ 2 ○	○ Significant increase ○ Moderate increase ○

Improved fraud analytics	3 ○ 4 ○ 5	No change ○ Moderate decrease ○ Significant decrease
Other	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease

If you have any additional comments or inputs to the table above, please include here.

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Risks/Challenges	Relevance to date (0=not relevant 5=very relevant)	Evolution in the next 3 years?
Lack of human resources / skills	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Financial stability risks	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Financial exclusion	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Concentration risk	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Unfair treatment of consumers	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Unlawful discrimination /bias issues	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease

Cyber risks	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
IT operational resilience issues	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Conflicts of interest	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Data privacy issues	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Fragmentation of the insurance value chain	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Higher competitive pressure	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Risks related to (cross) misselling	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Other		

If you have any additional comments or inputs to the table above, please include here.

Obstacles

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Obstacles	Relevance to date (0=not relevant 5=very relevant)	Evolution in the next 3 years?
Regulatory obstacles – non-insurance regulation	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Regulatory obstacles - insurance prudential regulation	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Regulatory obstacles – insurance conduct of business regulation	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Funding	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Human resources / skills	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Legacy systems: Integration of new and old systems	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Corporate culture	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Insufficient access to data	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease
Lack of data standards / API standards	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Significant increase ○ Moderate increase ○ No change ○ Moderate decrease ○ Significant decrease

Other	⚪ 1 ⚪ 2 ⚪ 3 ⚪ 4 ⚪ 5	⚪ Significant increase ⚪ Moderate increase ⚪ No change ⚪ Moderate decrease ⚪ Significant decrease

If you have any additional comments or inputs to the table above, please include here.

46. In case you have identified any regulatory obstacles to digitalisation in insurance legislation that you consider that are overly burdensome and/or not duly justified to protect the public interest, including possible areas where further regulatory guidance would be welcomed, please explain them in the box below.

47. Are there any external datasets that you find relevant for your organisation but you do not have access / have difficulties to access them? What are the main obstacles that prevent you from having access to these datasets?