**QUESTIONNAIRE TO SETTLE THE BASIS FOR THE CREATION OF A WHITE PAPER ON NEW TECHNOLOGIES AND INSURANCE. INSURTECH.**

**AIDA International Work Group, New Technologies, Prevention and Insurance.**

**GENERAL SUBJECT: INSURTECH (Stand: 15.07.2019)**

**Insurtech** is a broad term which includes diverse economic realities and activities.

We shall refer to some of the applications of information technology to the activities carried out by the insurance sector, including both insurers that apply said technology incidentally and technological companies themselves.

We are facing some deep changes as regards traditional insurers who, as part of their digital transformation, want to improve and broaden their range of products and services, increase their efficiency and profitability and open new channels of distribution.

In this field, we find several legal implications, such as the difficulties of controlling entities to encapsulate new realities, the challenge of neutrality, since the same activity carried out by different operators should be governed by the same rules, the current topic of legal security of data, as well as the use of Big Data, Blockchain, Internet of Things, smart contracts, and others, without forgetting the consequences that each of these scenarios may have on insurance, especially regarding civil liability.

Other important implications are those of Cyber Risks, which imply a risk for individuals, but also for companies, and include social, functional and even ethic implications which must be taken into account.

The Group’s goal for 2019/2020 is to define the structure of a **White Paper** that, once created, shall be available for people and entities interested worldwide.

Said publication shall attempt to describe and analyze problematic situations that affect the insurance sector, with specific solution proposals and principles.

**QUESTIONNAIRE**

**A. BIG DATA (BD)**

**Clarification:** Big quantities of data that move too fast for conventional databases and which cannot be processed, stored or analyzed by said databases. May be used to find repetitive patterns. Types: structured and unstructured, the latter being the majority.

**A. Preliminary and general topics**

1. Is there Internet coverage in every zone of your country?

2. Is the insurance sector aware of the data values and their needs for treatment?

3. Is there awareness of the fields where they may be used:?

For example:

-while interacting with the client, costs reduction, strengthening subscription, loss processing and risk management;

-losses: client conduct analysis, anticipation of the client to the loss, detection of possible frauds in real time?

4. Do risk managers use Big Data and to what end —for example, to detect new risks early, create risk profiles, control expositions, quantify difficult risks?

5. Which data analysis methods are used by managers —for example, dimensional reduction processes, regression methods, neural networks?

**B. Influence on certain insurance modalities**

**General risks**

1. Can BD support the subscription on complex coverage, benefit loss, gas, oil or pharmaceutical industry risks or others?

2. Can BD change the subscription parameters of risks which are easy to subscribe
—home, personal accidents, etc.?

**Motor vehicles Insurance**

3. Can the information obtained on the driver’s conduct prevent fraud, improve prevention or prevent deaths? Explain the reasons for your answer.

4. Are self-driving or autonomous cars viable in your country?

5. Are current regulations appropriate or which legal provisions should be modified?

6. How is the coordination work between the insurance company and the companies that supply sensors and software applied to the autonomous vehicle, valued?

6.1. If this job implies a higher risk, is this included in the policies?

6.2. Do you think it will open doors for new operators, for example, telecommunication entities?

**Life, health/sickness insurance**

7. Do you think BD may change the ways of subscription based on the primary condition of the subject —such as the seriousness of the illness, the scope and term of the treatment— or on the analysis of the medical history? Indicate how.

8. BD predictions may lead to taking into account biological age instead of chronological age?

9. Are algorithms being used to search information and apply it to specific cases?

10. Are doctors mentally prepared and sufficiently trained and informed about the importance of handling data appropriately for their institution?

11. Is there a delegate for data protection in hospital centers or is this outsourced?

12. Are sensors or equipment used in the patient’s body to monitor their vital signs and send this information to the doctor in real time?

13. Are telemedicine, e-health or mobile health being used?

14 Are there illness management programs, such as the program Real World Data or similar? If the answer is yes, provide some examples.

**C. Regulations**

1. Given that BD is different from other data —because of its heterogeneity, source variety, collection partiality, effect on the private sphere…—, are there any applicable regulations or is the need of regulations currently a topic of discussion?

If the answer is yes, please indicate the main aspects.

2. Under current legal regulations, can you mention rules or legal requirements related to data protection, cyber-security, remote services commercialization or consumer protection?

Are they applicable to BD?

3. Does data protection only cover individuals or also legal entities, deceased individuals or non-personal data?

4. Which principles are applied regarding treatment of data —accuracy, reliability, integrity, term of conservation…?

5. Which rights are applied regarding treatment of data —right to be forgotten, right to portability and mobility…?

6. Which prohibitions or exceptions have been established?

7. Is compensation for damages by the entity responsible or in charge of the treatment of data provided for?

8. If BD provides information not established by Law, how can informative asymmetry or issues regarding risk declaration, obligation to answer the questionnaire, and need of the questionnaire, be solved?

9. Can a user who subscribes to a platform free of charge and provides voluntarily his/her data be considered a type of subcontractor worker who creates the product —the data—, which the company later sells?

**B. BLOCKCHAIN TECHNOLOGY**

**Clarification:** Blockchain is a shared registry, replicated in multiple locations, updated through consensus, distributed, unchanging, permanent, non-modifiable by a network member which removes the need for mediators.

**1. Overall picture**

1. Is there a position in the insurance sector about the advantages/disadvantages of Blockchain?

2. Do you think cryptography will eliminate or reduce the role of intermediaries
—lawyers, experts, notaries public?

3. What validation systems are used in your country —for example, mining with proof of work, validator nodes with proof of stake?

4. Which are the possible errors that may be detected —such as control of the majority of the nodes, human errors, data explosion, bad faith, security failure, excessive transparency?

5. Is a regulation system —autoregulation, right of control— shared and monitored by third parties advisable?

6. What consequences may the disappearance of the contract or original document have as regards proving the facts before a court?

 7. Which main elements of insurance, related to communication before and after executing the contract should be taken into account when using blockchain —risk change-worsening, right to withdraw, right to be informed?

**2. Smart contracts**

1. Which are the advantages and disadvantages of these contracts for the insurance sector?

2. Which problems do you identify in relation to:

3. Wording, alteration and interpretation of clauses in digital language.

4. Adequacy and accuracy of the instructions under the contract-policy

5. Applicable law and jurisdiction

6. Data protection within a transparent environment

7. Right to withdraw

8. Replacement of the judge

9. Others

**C. CYBER INSURANCE**

1. Can Big Data / Blockchain technologies increase cyber risk exposure?

2. Are both these technologies covered by this type of insurance?

3. Which are the main attacks generated by cyber risk? Can the insurance coverage be affected —for example, by injecting a malicious code in the connection systems or access channels (SPI case in Mexico), identity theft or impersonation?

4. What measures have been set out to fight fake news —for example, a Digital Code of Conduct, Good Practices Code, etc.— and to protect information?

5. How is “loss” defined in cyber insurance policy?

6. Which insurances cover cyber risk —damages, civil liability, software, home,
etc.?

**D. ALGORITHMS**

**Clarification**: The algorithm is an ordered and finite set of mathematic operations which enables to find a solution to a problem, helps to automatize tasks, processes and decisions, classifies, associates and filters.

1. Are there companies specialized in developing algorithms in your country?

2. What problems can be detected with respect to delimiting liability —such as opacity, decision automation, exercise of rights, effects multiplication?

3. Are *robo-advisors* used —tools that offer automatized counseling to clients by automatized algorithms and/or decision trees without human intervention?

3.1- Which do you believe are the consequences as regards risks and insurance?

**E. BUYERS AND AGGREGATORS**

**Clarification:** This is about providing information in relation to one or more insurance policies in accordance with criteria selected by clients through a website or other means, and elaborating an insurance product classification, including prices and product comparison or price discount.

1. Providing information in relation to insurance policies or elaboration of an insurance product classification online implies widening the scope of mediation activity/insurances distribution?

2. Does the purchaser or aggregator involve a remote insurance mediation activity?

3. Does the use of these instruments imply a tendency towards disintermediation?

4. What risks can be found within this environment (limitations or biases in information, failure of tool functioning, difficulties when allocating liability)?

5. Are these instruments regulated by law?

**F. SANDBOX**

**Clarification:** It refers to a testbed for innovation projects. Entrepreneurs can develop their ideas, safeguarded and protected by the regulator, in a safe environment. The peculiarity is that for a period of time one is free from the application of the Law. A term is provided to develop the idea, without facing sanctions —for example, an innovative insurance to be developed that requires X amount of capital at least, which is not available nor required.

1. Is this a good idea to develop new products —as cyber insurance— without initial legal restrictions?

2. Would the Insurance Superintendence or controlling body of the insurance activity be willing to safeguard/control such a project?

3. Is there any inclusion bill as regards insurances in similar projects in your country?

**G. GENERAL SOCIAL, FUNCTIONAL AND ETHIC ASPECTS**

1. Is the liability of companies which develop remote connection systems regulated?

2. Are there regulations for technological risk business management? Explain the scope thereof.

3. Under which circumstances do you think liability is generated by the design, development or application of an algorithm —such as inappropriate design, false positives or negatives, discriminatory preconditions?

4. Which ideas, principles or solutions do you consider necessary in your country or region in order to prevent the abovementioned new technologies based on Artificial Intelligence from violating fundamental rights —privacy, safety, welfare or others—, respect values and serve human beings?