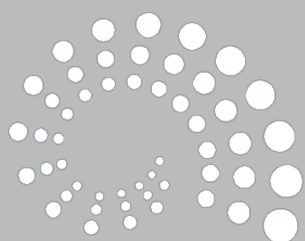




Engineering & Construction Insurance



HELLENIC
ASSOCIATION
OF INSURANCE
COMPANIES

Statistics Survey 2023

Executive Summary

Survey Points

- Records Engineering & Construction figures (number of contracts and claims, sum insured and amount of indemnities paid and outstanding)
- Analyze indemnities (paid and outstanding) by cause of claim
- Breaks down insurance premium per distribution channel
- Records the evolution of indemnities during the last four years

Survey Participation

- 19 Insurance Enterprises
- 90,4% of the total premium production of Property insurance coverages

Survey Findings

| | <u>2023</u> | <u>2022</u> (updated) |
|--|-------------------|----------------------------|
| ○ Number of Engineering & Construction Contracts | 22,395 | 22,900 |
| ○ Number of reported claims | 2,005 | 2,673 |
| ○ Indemnities paid (€) | 11,662,211 | 6,683,030 |
| ○ Outstanding Indemnities (€) | 43,010,122 | 19,429,956 |
| ○ Indemnities for 2023 are increased due to the particularly strong impact of the extreme weather events (Daniel - Elias) of September 2023 and the forest fires of July - August 2023 | | |

The research

The Property, Reinsurance, Cargo & Yacht Committee of HAIC, after considering the needs of comprehensive information of insurance companies operating in the field of Engineering & Construction insurance, continued for yet another year the systematic collection of statistical data.

In this context, HAIC has developed a questionnaire, focusing on the statistical determination of both the amount of risk undertaken overall as well as the claims number and the amount of indemnities for all participating companies.

Therefore, the questionnaire:

- Records Engineering & Construction figures (number of contracts and claims, sum insured and amount of indemnities paid and outstanding)
- Analyze indemnities (paid and outstanding) by cause of claim
- Records the evolution of the indemnities per year of issue of the insurance contract, for the last 4 years
- Breaks down insurance premium per distribution channel

Survey of 2023 includes the data of 19 insurance enterprises with establishment status, which are estimated to collect 90.4% of the total premium of property covers, for insurance enterprises operating in Greece.

This report records the cumulative responses of those enterprises that responded to the 2023 survey. The data used came from the specialized questionnaire to which insurance enterprises were invited to respond.

The questionnaire asked for information on the number of insurance contracts, the number of claims and amount of indemnities for the year 2023. The data for the year 2022 was also updated with a two-year (2022 - 2023) recording of indemnities and claims. For these figures, an analysis was requested in relation to the type of risk insured, following the grouping of contracts as follows:

- C.A.R. (Contractors All Risks): Contracts providing insurance cover against all risks (except those expressly excluded) for loss or damage to works under construction (e.g. buildings, roads, etc.), construction sites and construction equipment and/or construction machinery, as well as against third party claims for property damage or bodily injury arising in connection with the execution of the work.
- E.A.R. (Erection All Risks): Contracts providing insurance cover against all risks (except those expressly excluded) for loss or damage to erection machinery, factory installations and

iron or steel structures of any kind, as well as against third party claims for property damage or bodily injury arising from the execution of the project

- C.P.M. (Contractors' Plant and Machinery): Contracts providing insurance of a contractor's plant and machinery, on an annual basis and on any project on which they are used. Covers any loss or damage (except those specifically excluded), from any cause, occurring while on the job, while off the job or during maintenance. The sum insured is the replacement value of the machine for a new one.
- C.E.C.R (Civil Engineering Completed Risks): Contracts providing insurance civil engineering projects: Insurance cover on civil engineering constructions after completion against named risks. It covers the cost of repair or replacement of material damage, mainly fire risks, risks arising from local geological conditions and risks relating to the design, operation and use of the structure.
- E.E.I. (Electronic Equipment Insurance): Contracts providing insurance coverage against all risks (except those specifically excluded) for loss or damage to electrical and electronic equipment in a facility, at work, when off work, or during maintenance operations. The sum insured is the replacement value of the damaged electrical or electronic equipment with new equipment.
- M.B. (Machinery Breakdown): Contracts providing insurance coverage against all risks (except those specifically excluded) for loss of or damage to machinery and mechanical equipment in a facility, at work, when off work, or during maintenance operations. The insured capital is the replacement value of the damaged machinery with new machinery.

Prior to analyzing the figures in this report, it should be noted that property insurance in general, faces claims which occur irregularly over time, while there is a very high variability in the amount of indemnities each year, particularly regarding the insurance of catastrophic events, which may not occur regularly, but when they do happen, they are especially costly.

Finally, for the calculation of the total indemnities amount over the years, account should be taken for the evolution of the number of claims as well as the indemnities paid over a long period, information that was not known at the time of writing this report.

1. Engineering and Construction Insurance Figures

1.1. Insured risks

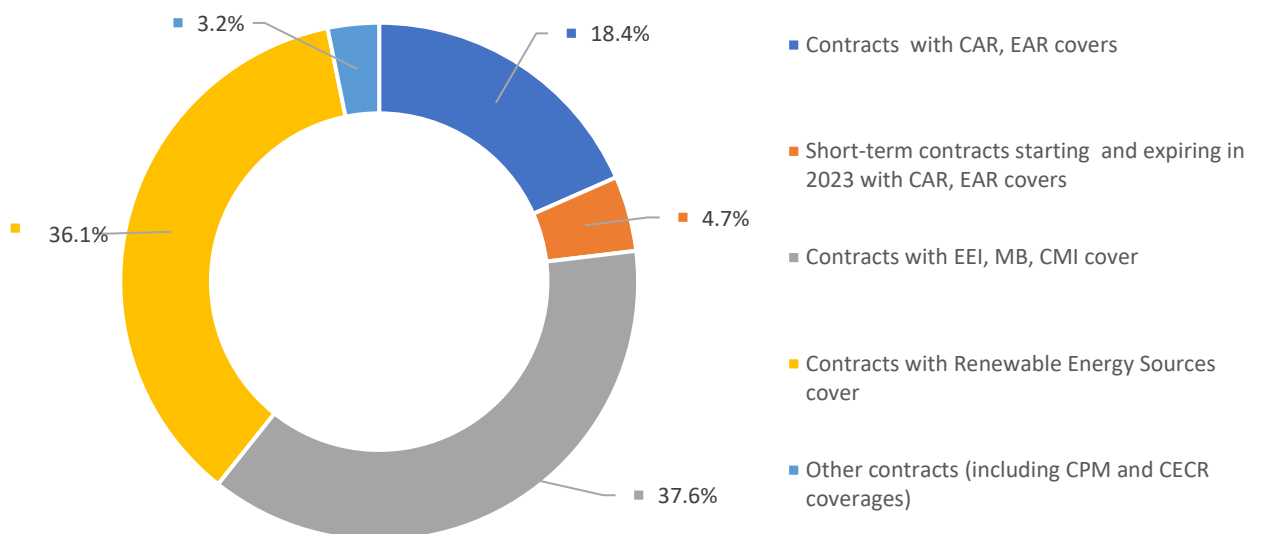
The HAIC survey collected data on 22,395 contracts issued in 2023, some of which remained in force in 2024.

According to the replies of the insurance enterprises, the distribution of these contracts is as follows:

Table 1: Contracts Distribution 2023

| | Number Contracts | % |
|---|------------------|---------------|
| Number of contracts in force at 31.12. 2023 with CAR, EAR covers ¹ | 4,111 | 18.4% |
| Number of short-term contracts starting and expiring in 2023 with CAR, EAR covers | 1,043 | 4.7% |
| Number of contracts issued in 2023 with EEI, MB, CMI cover | 8,423 | 37.6% |
| Number of contracts issued in 2023 with Renewable Energy Sources cover | 8,090 | 36.1% |
| Other 2023 contracts (including CPM and CECR coverages) | 728 | 3.2% |
| Total | 22,395 | 100.0% |

Figure 1: Number of contracts 2023 share (%)



¹ The abbreviations of the coverages appear on pages 3 - 4 of this report

Along with the survey of the 2023 data, it was requested to update the 2022 data based on the information available on 31/12/2023. The survey aggregated results of the risks covered in 2023 are presented in the table below.

Table 2: Contracts distribution 2022 (updated)

| | Number of Contracts | % |
|---|---------------------|---------------|
| Contracts in force at 31.12.2022 with CAR, EAR covers² | 3,865 | 16.9% |
| Short-term contracts with starting and expiring in 2022 with CAR, EAR covers | 1,266 | 5.5% |
| Contracts issued in 2022 with EEI, MB, CMI cover | 9,171 | 40.0% |
| Contracts issued in 2022 with Renewable Energy Sources cover | 7,345 | 32.1% |
| Other 2022 contracts (including CPM and CECR coverages) | 1,253 | 5.5% |
| Total | 22,900 | 100.0% |

As a result, the 2023 number of contracts show a small decrease in total, of 2.2% compared to the updated 2022 data of the same companies.

² The abbreviations of the coverages appear on pages 3 - 4 of this report

1.2. Distribution Channels

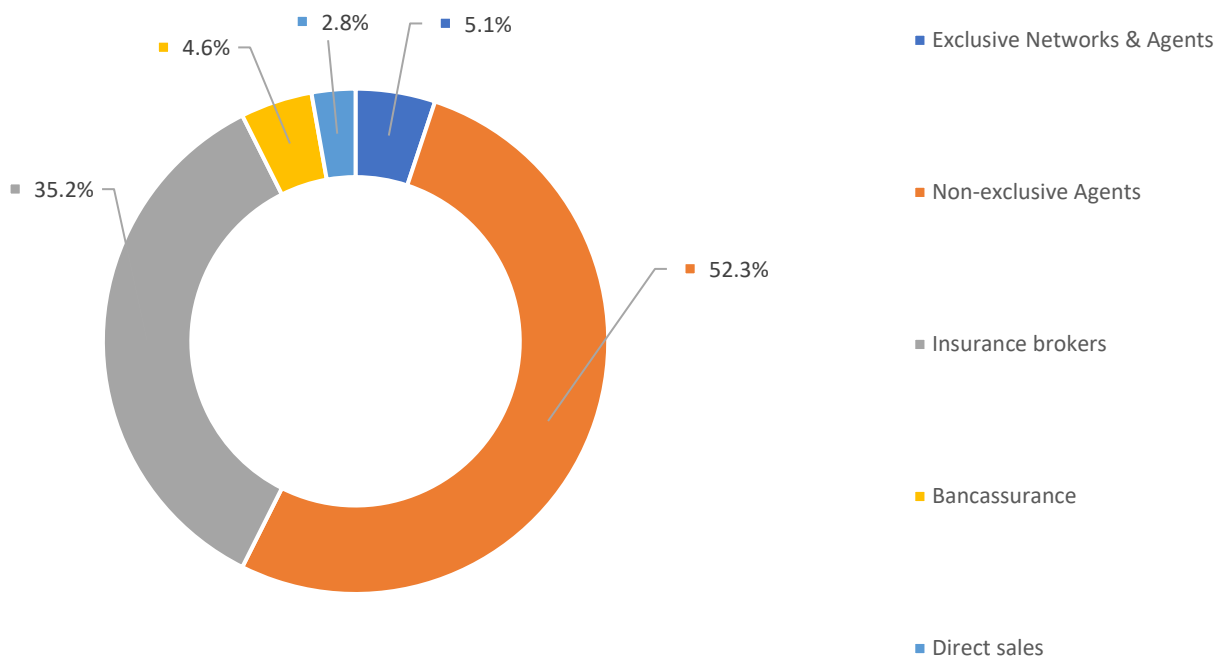
The survey of the premium allocation (including policy fees) per distribution channel for the year 2023 was also conducted in full alignment with Law 4583/2018 "Distribution of Insurance Products".

Distribution channels defined in terms of their form of cooperation (same definition for all HAIC research) are reported as follows: Insurance agents of exclusive cooperation, Non-exclusive insurance agents, Insurance brokers, Cooperation with banks, Direct sales (mail order sales, insurance employees, internet, call centers), Secondary activity intermediaries (whose main activity is not intermediation of insurance products).

The dominant distribution channel in engineering & construction insurance was non-exclusive cooperation with agents (52.3% of total premium production of the engineering and construction insurance), followed by cooperation with insurance brokers (35.2% respectively).

The percentage share for 2023 of all distribution channels, according to the responses of the insurance companies that participated in the survey, is shown in the figure below.

Figure 2: Distribution channels share 2023 (%)



2. Claims – Indemnities

For insurance contracts issued in 2023 a total of 2,005 claims were reported in 2023. Indemnities paid within 2023 reached € 11.7 million, while outstanding indemnities reached € 43.0 million on 31/12/2023.

It is noted that the above reported outstanding indemnities refer to the initial estimation of the first year (2023 year of the insurance contract issuance). Both the number of claims and the final amount of indemnities for these contracts will vary significantly, when we add the subsequent information for these contracts, that was not available at the time of writing this report, until the expiration of all contracts issued within the year.

2.1. Claims – indemnities analysis 2023

The aggregated results of the survey regarding the type of the risks covered are presented in the tables and figures below.

Table 3: Distribution of claims – indemnities 2023

| | Number of claims | Paid Indemnities (€) | Outstanding Indemnities (€) |
|--|------------------|----------------------|-----------------------------|
| Contracts with CAR, EAR cover | 352 | 217,515 | 10,879,863 |
| Contracts with EEI, MB, CMI cover | 624 | 1,422,493 | 15,456,328 |
| Contracts with Renewable Energy Sources cover | 1,010 | 9,918,950 | 13,669,777 |
| Other contracts (including CPM and CECR coverages) | 19 | 103,253 | 3,004,154 |
| Total | 2,005 | 11,662,211 | 43,010,122 |

The percentage distribution of total claims number and indemnities for 2023 is shown in the following table.

Table 4: Percentage distribution of total claims number and indemnities 2023 (%)

| | Number of claims | Paid Indemnities | Outstanding Indemnities |
|--|------------------|------------------|-------------------------|
| Contracts with CAR, EAR cover | 17.6% | 1.9% | 25.3% |
| Contracts with EEI, MB, CMI cover | 31.1% | 12.2% | 35.9% |
| Contracts with Renewable Energy Sources cover | 50.4% | 85.0% | 31.8% |
| Other contracts (including CPM and CECR coverages) | 0.9% | 0.9% | 7.0% |
| Total | 100.0% | 100.0% | 100.0% |

Figure 3: Number of claims 2023 share (%)

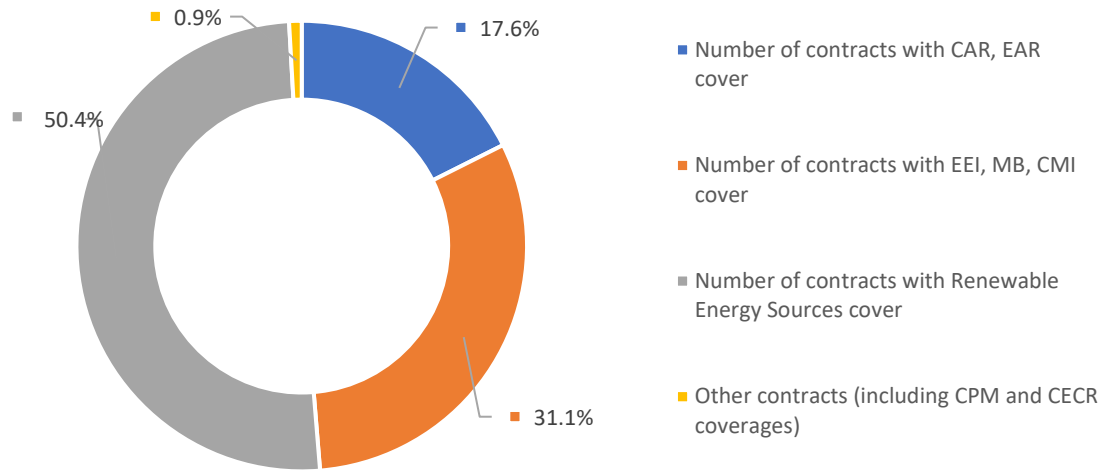
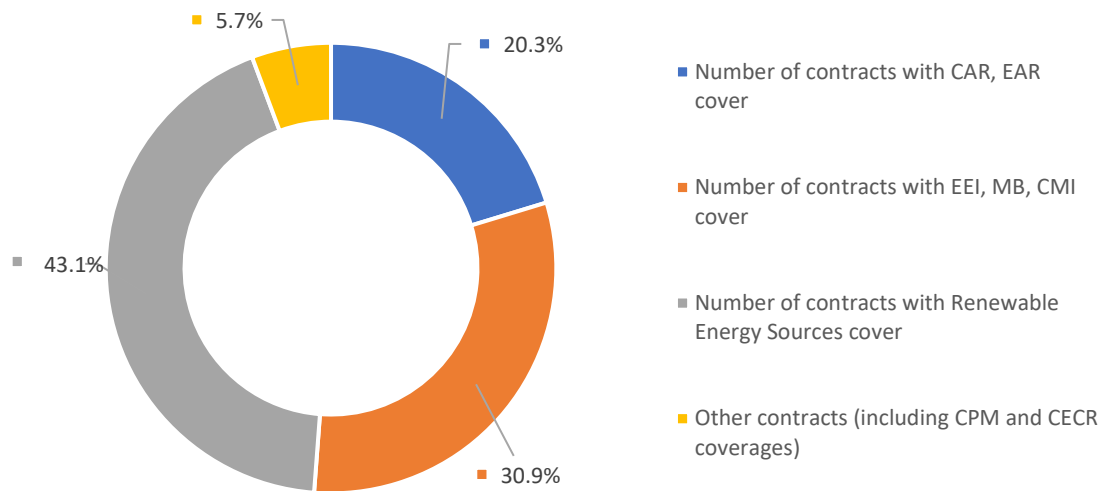


Figure 4: Indemnities (paid & outstanding) 2023 share (%)



2.2. Claims – Indemnities analysis 2022 (updated)

Along with 2023 research, the updated data for contracts issued in 2022 was requested, based on the information available on 31/12/2023.

The aggregated results of the survey regarding claims and indemnities for 2022 and 2023, of year 2022 contracts are presented in the tables below.

Table 5: Distribution of claims – indemnities for contracts issued in 2022 (updated)

| | Number of claims | Paid Indemnities (€) | Outstanding Indemnities (€) |
|---|------------------|----------------------|-----------------------------|
| Contracts with CAR, EAR cover | 383 | 424,748 | 5,026,179 |
| Contracts with EEI, MB, CMI cover | 1,082 | 1,383,942 | 3,463,018 |
| Contracts with Renewable Energy Sources cover | 1,092 | 4,637,068 | 7,420,692 |
| Other contracts (including CPM and CECR coverages) | 116 | 237,272 | 3,520,067 |
| Total | 2,673 | 6,683,030 | 19,429,956 |

The percentage distribution of total claims number and indemnities for contracts issued in 2022 is shown in the following table:

Table 6: Percentage distribution of total claims number and indemnities for contracts issued 2022 (%) (updated)

| | Number of claims | Paid Indemnities | Outstanding Indemnities |
|---|------------------|------------------|-------------------------|
| Contracts with CAR, EAR cover | 14.3% | 6.4% | 25.9% |
| Contracts with EEI, MB, CMI cover | 40.5% | 20.7% | 17.8% |
| Contracts with Renewable Energy Sources cover | 40.9% | 69.4% | 38.2% |
| Other contracts (including CPM and CECR coverages) | 4.3% | 3.5% | 18.1% |
| Total | 100.0% | 100.0% | 100.0% |

2.3. Engineering and Construction Insurance ratios calculation

The figures reported in the previous sections were indexed and the results obtained are presented as ratios in the following tables. The ratios used, aim to calculate the technical basis for the insurance of the specific risks undertaken in 2023 by the insurance enterprises surveyed.

For their calculation, it has not been considered (as it was not known) the full cost of reimbursements as this will be formed in the future, as well as any damages that may arise until the expiration of these contracts. Therefore, the calculated indicators should be reassessed in subsequent time, based on more complete information. The indicators used are:

$$\text{Average claims frequency} = \frac{\text{Average reported claims}}{\text{Number of contracts}}$$

$$\text{Average claim cost} = \frac{\text{Claims Paid} + \text{Outstanding Claims}}{\text{Number of Reported claims}}$$

$$\text{Average risk coverage cost} = \text{Average Frequency} * \text{Average claim}$$

or

$$= \frac{\text{Paid claims} + \text{Outstanding claims}}{\text{Number of contracts}}$$

Table 7: Ratios 2023 (first estimation)

| | Contracts with CAR, EAR cover | Contracts with EEI, MB, CMI cover | Contracts with Renewable Energy Sources cover | Other contracts (including CPM and CE CR coverages) | Total |
|--|-------------------------------|-----------------------------------|---|---|---------------|
| Average Claim (€) | 31,527 | 27,049 | 23,355 | 163,548 | 27,268 |
| Claims Frequency (%) | 6.83% | 7.41% | 12.48% | 2.61% | 8.95% |
| Average cost of risk coverage (€) | 2,153 | 2,004 | 2,916 | 4,268 | 2,441 |

Respectively, according to the updated 2022 survey data, the indicators for contracts issued in 2022 are recalculated as follows.

Table 8: Ratios 2022 (updated)

| | Contracts with CAR, EAR cover | Contracts with EEI, MB, CMI cover | Contracts with Renewable Energy Sources cover | Other contracts (including CPM and CECR coverages) | Total |
|--|-------------------------------|-----------------------------------|---|--|--------|
| Average Claim (€) | 14,232 | 4,480 | 11,042 | 32,391 | 9,769 |
| Claims Frequency (%) | 7.46% | 11.80% | 14.87% | 9.26% | 11.67% |
| Average cost of risk coverage (€) | 1,062 | 529 | 1.642 | 2,999 | 1,140 |

2.4. Indemnities analysis by cause of claim

The causes of engineering and construction insurance claims are analyzed below, separately for the number of reported claims, indemnities paid and outstanding indemnities at the end of 2023. In terms of causes, the following are considered separately: fire, natural disaster perils, electrical damage (lightning, short circuit, etc.), civil liability and other causes. Regarding the causes of claims included in other causes, indicative examples are: theft, ground subsidence, collapse, malicious acts, defective material, and machinery breakdown.

Table 9: Number of claims by cause, year 2023

| | Fire | Natural Disaster Perils | Electrical Damage | Civil Liability | Other causes | Total |
|---|-----------|-------------------------|-------------------|-----------------|--------------|--------------|
| Contracts with CAR, EAR cover | 12 | 61 | - | 56 | 223 | 352 |
| Contracts with EEI, MB, CMI cover | 4 | 170 | - | - | 450 | 624 |
| Contracts with Renewable Energy Sources cover | 40 | 399 | 189 | - | 382 | 1,010 |
| Other contracts (including CPM and CECR coverages) | - | 7 | - | - | 12 | 19 |
| Total | 56 | 637 | 189 | 56 | 1,067 | 2,005 |

Table 10: Percentage distribution of claims by cause, year 2023

| | Fire | Natural Disaster Perils | Electrical Damage | Civil Liability | Other causes | Total |
|---|-------------|-------------------------|-------------------|-----------------|--------------|---------------|
| Contracts with CAR, EAR cover | 3.4% | 17.3% | - | 15.9% | 63.4% | 100.0% |
| Contracts with EEI, MB, CMI cover | 0.6% | 27.3% | - | - | 72.1% | 100.0% |
| Contracts with Renewable Energy Sources cover | 4.0% | 39.5% | 18.7% | - | 37.8% | 100.0% |
| Other contracts (including CPM and CECR coverages) | - | 36.8% | - | - | 63.2% | 100.0% |
| Total | 2.8% | 31.8% | 9.4% | 2.8% | 53.2% | 100.0% |

Table 11: Indemnities paid by cause, year 2023 (€)

| € | Fire | Natural Disaster Perils | Electrical Damage | Civil Liability | Other causes | Total |
|--|---------------|-------------------------|-------------------|-----------------|----------------|-------------------|
| Contracts with CAR, EAR cover | - | 9,632 | - | 2,652 | 205,231 | 217,515 |
| Contracts with EEI, MB, CMI cover | - | 860,032 | - | - | 562,461 | 1,422,493 |
| Contracts with Renewable Energy Sources cover | 49,417 | 9,674,325 | 62,407 | - | 132,801 | 9.918.950 |
| Other contracts (including CPM and CECR coverages) | - | 101,970 | - | - | 1,283 | 103,253 |
| Total | 49,417 | 10,645,959 | 62,407 | 2,652 | 901,776 | 11,662,211 |

Table 12: Percentage distribution of indemnities paid by cause, year 2023

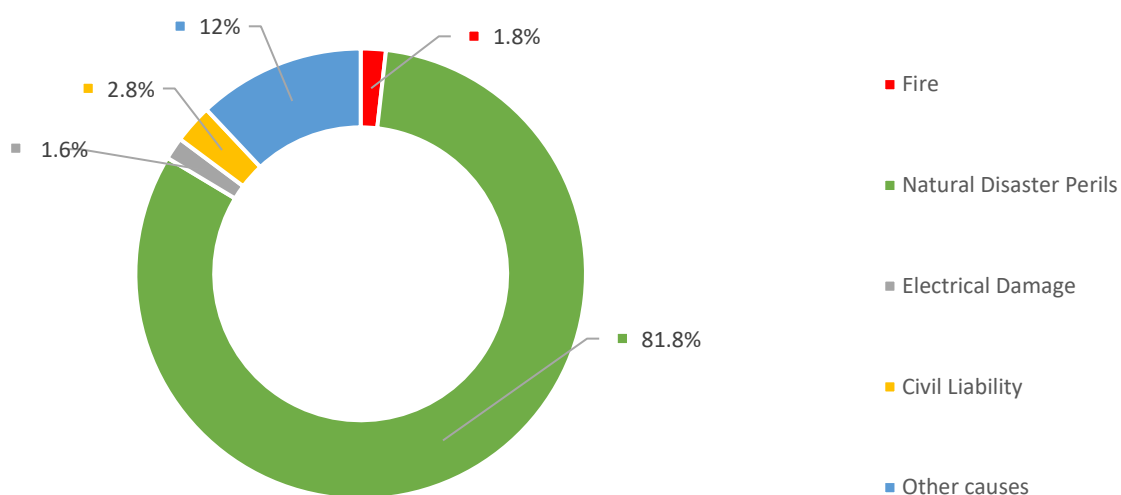
| | Fire | Natural Disaster Perils | Electrical Damage | Civil Liability | Other causes | Total |
|--|-------------|-------------------------|-------------------|-----------------|--------------|---------------|
| Contracts with CAR, EAR cover | - | 4.4% | - | 1.2% | 94.4% | 100.0% |
| Contracts with EEI, MB, CMI cover | - | 60.5% | - | - | 39.5% | 100.0% |
| Contracts with Renewable Energy Sources cover | 0.5% | 97.5% | 0.6% | - | 1.4% | 100.0% |
| Other contracts (including CPM and CECR coverages) | - | 98.8% | - | - | 1.2% | 100.0% |
| Total | 0.4% | 91.3% | 0.5% | 0.02% | 7.7% | 100.0% |

Table 13: Outstanding indemnities by cause, year 2023 (€)

| € | Fire | Natural Disaster Perils | Electrical Damage | Civil Liability | Other causes | Total |
|--|----------------|-------------------------|-------------------|------------------|------------------|-------------------|
| Contracts with CAR, EAR cover | 317,150 | 5,370,309 | - | 1,518,043 | 3,674,361 | 10,879,863 |
| Contracts with EEI, MB, CMI cover | 112,760 | 14,827,737 | - | - | 515,831 | 15,456,328 |
| Contracts with Renewable Energy Sources cover | 510,288 | 10,949,072 | 830,967 | - | 1,379,450 | 13,669,777 |
| Other contracts (including CPM and CECR coverages) | - | 2,942,299 | - | - | 61,855 | 3,004,154 |
| Total | 940,198 | 34,089,417 | 830,967 | 1,518,043 | 5,631,497 | 43,010,122 |

Table 14: Outstanding indemnities percentage distribution by cause, year 2023

| | Fire | Natural Disaster Perils | Electrical Damage | Civil Liability | Other causes | Total |
|--|-------------|-------------------------|-------------------|-----------------|--------------|---------------|
| Contracts with CAR, EAR cover | 2.9% | 49.4% | - | 14.0% | 33.8% | 100.0% |
| Contracts with EEI, MB, CMI cover | 0.7% | 95.9% | - | - | 3.4% | 100.0% |
| Contracts with Renewable Energy Sources cover | 3.7% | 80.1% | 6.1% | - | 10.1% | 100.0% |
| Other contracts (including CPM and CECR coverages) | 0.0% | 97.9% | - | - | 2.1% | 100.0% |
| Total | 2.2% | 79.3% | 1.9% | 3.5% | 13.1% | 100.0% |

Figure 5: Indemnities percentage distribution (paid + outstanding) by cause, year 2023

From the above figures, the average indemnity ratios per cause of claim are calculated. It should be noted that in the table below, the average ratios are calculated on the total number of contracts for each group of cover, which means that they do not refer to a specific cover or package of covers.

Their calculation does not take into account (as it was not known) the full cost of indemnity as it will be formed in the future, as well as any claims incurred up to the expiry date of the specific contracts.

Table 15: Average indemnity calculation, year 2023(€)

| € | Fire | Natural Disaster Perils | Electrical Damage | Civil Liability | Other causes | Total |
|---|---------------|-------------------------|-------------------|-----------------|--------------|----------------|
| Contracts with CAR, EAR cover | 26,429 | 88,196 | - | 27,155 | 17,397 | 31,527 |
| Contracts with EEI, MB, CMI cover | 28,190 | 92,281 | - | - | 2,396 | 27,049 |
| Contracts with Renewable Energy Sources cover | 13,993 | 51,688 | 4,727 | - | 3,959 | 23,355 |
| Other contracts (including CPM and CECR coverages) | - | 434,896 | - | - | 5,262 | 163,548 |
| Total | 17,672 | 70,228 | 4,727 | 27,155 | 6,123 | 27,268 |

Respectively, according to the updated survey data for contracts issued in 2022, the average indemnity for the year 2022 is recalculated as follows:

Table 16: Average indemnity calculation, for contracts issued in 2022 (€) (updated)

| € | Fire | Natural Disaster Perils | Electrical Damage | Civil Liability | Other causes | Total |
|---|---------------|-------------------------|-------------------|-----------------|--------------|---------------|
| Contracts with CAR, EAR cover | 45,827 | 53,624 | - | 5,235 | 12,130 | 14,232 |
| Contracts with EEI, MB, CMI cover | 26,795 | 28,459 | - | - | 3,925 | 4,480 |
| Contracts with Renewable Energy Sources cover | 4,567 | 43,128 | 3,069 | - | 3,735 | 11,042 |
| Other contracts (including CPM and CECR coverages) | 5,396 | 274,678 | - | - | 7,072 | 32,391 |
| Total | 14,566 | 52,989 | 3,069 | 5,235 | 5,043 | 9,769 |

3. Total portfolio indemnities evolution

3.1. Recording of indemnities per underwriting year

The tables below show the evolution of indemnities by year of issue of insurance contracts for the engineering and construction insurance sector. The data relate to the amounts of indemnities, paid and outstanding, for the last four years (2020 - 2023). Their collection is intended to monitor the "maturity" of indemnities over time in terms of their amount. The available data, in terms of duration of the coverage period, are currently not sufficient to give a full insight into the evolution of the figures in the future.

According to the statistical treatment of the three years' indemnities (2020-2023), it appears that the indemnities at the end of the second year from the year of issue evolve with a factor of 3.36 and over four years with a factor of 3.99. It should be noted, however, that the evolution factors for indemnities are higher due to the particularly strong impact on indemnities of the consequences of the extreme weather events (Daniel-Elias) and the forest fires of July and August of 2023.

Table 17: Indemnities Paid (€)

| | | Payment Year ³ | | | |
|-------------------|------|---------------------------|-----------|-----------|------------|
| Underwriting year | € | 2020 | 2021 | 2022 | 2023 |
| | 2020 | 822,009 | 5,279,368 | 4.293.404 | 830.627 |
| | 2021 | | 788,737 | 5.353.192 | 3.430.535 |
| | 2022 | | | 1,030,012 | 6.818.556 |
| | 2023 | | | | 11,521,143 |

³ For contracts issued in 2020, the paid indemnities in 2020, in 2021 etc.

Table 18: Gross paid indemnities (€) – Cumulative basis

| | | Outstanding year ⁴ | | | |
|-------------------|------|-------------------------------|-----------|------------|------------|
| Underwriting year | € | 2020 | 2021 | 2022 | 2023 |
| | 2020 | 822,009 | 6,101,377 | 10.394.782 | 11.225.408 |
| | 2021 | | 788,737 | 6.141.929 | 9.572.464 |
| | 2022 | | | 1,030,012 | 7.848.568 |
| | 2023 | | | | 11,521,143 |

Table 19: Year-end outstanding reserves (€)

| | | Payment Year | | | |
|-------------------|------|--------------|------------|------------|------------|
| Underwriting year | € | 2020 | 2021 | 2022 | 2023 |
| | 2020 | 6,389,173 | 14,752,495 | 7,504,386 | 6,016,545 |
| | 2021 | | 6,940,028 | 10,659,149 | 17,490,748 |
| | 2022 | | | 4,822,504 | 21,490,139 |
| | 2023 | | | | 42,573,161 |

Table 20: Gross paid (cumulative) and outstanding indemnities (€)

| | | Payment Year | | | |
|-------------------|------|--------------|------------|------------|------------|
| Underwriting year | € | 2020 | 2021 | 2022 | 2023 |
| | 2020 | 7,211,182 | 20,853,872 | 17,899,168 | 17,241,954 |
| | 2021 | | 7,728,766 | 16,801,078 | 27,063,213 |
| | 2022 | | | 5,852,516 | 29,338,707 |
| | 2023 | | | | 54,094,304 |

September 20, 2024

⁴ For contracts issued in 2020, the reserves of outstanding claims at the end of 2020, of 2021 etc.