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30 January 2025
EIOPA-BoS-24/465

Q1: Do you have any comments about the (re)assessment/(re)calibration for Romania earthquake?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
1	Insurance Europe	Public	Yes	(INSURANCE EUROPE HAS INCLUDED GENERAL COMMENTS IN THE QUESTION 53)Romania Earthquake •The evidence does not support EIOPA's proposed calibration. EIOPA's proposal does not consider the impact of the Romanian Natural Disaster Insurance Pool. •Market particularities •In view of the existing legal framework, the following insurance companies can be distinguished in Romania in terms of portfolios covering catastrophic risks: •The Natural Disaster Insurance Pool (PAID) •PAID is an insurance-reinsurance company with private capital, formed by the association of insurance companies for the conclusion of compulsory home insurance, in accordance with the provisions of Law no. 260/2008 on compulsory insurance of dwellings against earthquakes, landslides and floods ("Law 260/2008"). •According to the provisions of Law 260/2008, PAID manages the compulsory home insurance system, which covers three basic risks specific to Romania:earthquake, floods and landslides. •PAID issues the mandatory prime risk policy covering named perils related to natural disasters (PAD), with a fixed amount insured (limit) set by the law, acting as a deductible for the other insurance companies writing facultative household contracts. •Facultative household contracts cannot be issued in the absence of a PAD policy. •The PAD policy exclusively covers residential dwellings (excluding content and annexes not structurally connected to the dwelling) against the risks mentioned hereabove.	The standard formula can not capture in the delegated acts two specific factors for Romania Earthquake (one for PAID exposure and one for the companies offering the additional coverage). The proposal is therefore to have the in the delegated acts a factor valid fo rth companies offering additional coverage. For PAID exposure, a capital add-on could be implemented (Article 37(1)(a) of the Directive) until the approval of a partial internal model..

				•Insurance companies with facultative insurance portfolios relating to residential and/ or commercial properties (Facultative insurance companies) •Facultative insurance companies operating on the Romanian market may cover both residential and commercial dwellings. •The residential dwellings portfolio of insurance companies covers catastrophic risks exceeding the PAD policy limits. Therefore, the PAD policies act like a deductible for the facultative insurance companies. •Standard Formula calibration •EIOPA's proposal comprises of new specific country factors for earthquake risk and flood risk and changed zonal weights for Romania. PAID is excluded from the calibration of both risks, flood and earthquake. •However, due to the prime risk characteristic of the PAD policy, a large proportion of the natural catastrophic exposure for the residential line is retained by PAID. Thus, PAID's modelled 1 in 200 PML using the proposed Standard Formula shows totally unreliable results, significantly lower than the results obtained using various catastrophic tools. •Given the above, in order to reflect the specificities existing in Romania, there would be a need to include PAID in the calibration for both risks. •Consequences of PAID's exclusion from the calibration •For PAID •PAID applies the Standard Formula for the solvency quantitative and qualitative reporting. On a regulator basis PAID monitors its underwriting risk using the results of the international catastrophic vendors which were part of the Experts Group supporting the Standard Formula recalibration. •Although PAID is already assessing the solvency ratio for the risk profile on a regular basis, the application of an internal model is subject to a long process, requiring an increased number of human and financial resources but leading to similar quantitative results. •For market consistency •According to the Annual Report of Financial Supervisory Authority in Romania, at the end of December 2023 PAID's penetration rate was 21.21%, covering 2.047.566 insured dwellings from 9.655.685 total dwellings located in Romania. Comparing with PAID, the number of total facultative contracts written by the other insurance companies reached a total of 1.685.094 insured dwellings, with a penetration rate of the facultative policy of 17%. •As such, PAID has a significant representativity at the level of the local market, having a strategic importance due to its social purpose.	

				•Under EIOPA's proposal, the Standard Formula may become completely irrelevant for PAID as the company's main risk will no longer be reflected. •Conclusion •Given all of the above, in order to address all the specificities of the insurance market in Romania, we appreciate PAID should be part of the calibration of the Standard Formula for Romania. •Moreover, the calibration should establish different values for the country factors Q(earthquake®) and Q(floods®) for PAID and the insurance companies.	
2	Actuarial Association of Europe	Public	Yes	According to current calibration of standard formula, the risk coefficients for earthquake vary from 0.02% (Belgium) to 2.12% (Republic of Cyprus). Other larger risk coefficients are for the following countries: • Republic of Bulgaria and Croatia (1.60%) • Romania (1.70%) • Hellenic Republic (1.75%) In Romania, earthquake, flood and landslide risks are covered under the Natural Disaster Insurance Pool (PAID). PAID covers compulsory home insurance only, up to specific limits as per local legislation. Industrial, commercial and excess residential risks are covered by primary insurers in Romania. As part of the ongoing consultation, we note EIOPA's proposal to introduce a new country factor for Romania without the risk covered by PAID. We agree that the risk factor for Romania should reduce. This is supported indicated by analyses of various sources of earthquake related information available online (such as AON's Impact Forecasting publication available at https://www.aon.com/attachments/impact_forecasting_global_2008.pdf and output of 2020 European Seismic Hazard Model available on the European Facilities for Earthquake Hazard and Risk platform available at https://maps.eu-risk.eucentre.it/). For example, we can compare exposure difference for Romania and Hellenic Republic, shown in earthquake hazard maps referred to above (2020 European Seismic Hazard Model). The comparison shows that, at a high level only, half of Romania (Eastern half) exhibits exposure to earthquake hazard like Hellenic Republic, while the other half of Romania (Western half) exhibits lower exposure to the hazard. The Western half is not dissimilar to the Republic of Hungary, which in turn has a hazard coefficient of 0.20%. A similar comparison with the Italian Republic's exposure to earthquake (which has a hazard coefficient of 0.77% in the Standard Formula) suggests	Noted.

				that, overall, Romania compares better with the Italian Republic. This again supports a lower than 1.7% Standard Formula factor for Romania.	

Q7: Do you have any comments about the (re)assessment/(re)calibration for Czechia windstorm?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
3	Actuarial Association of Europe	Public	Yes	The calibration changes proposed for Czechia are relevant and reflect past experience.	Noted.

Q8: Do you have any comments about the (re)assessment/(re)calibration for Ireland windstorm?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
4	Actuarial Association of Europe	Public	Yes	There would be an acceptance that given the proposed country factors were in the range 0.10% - 0.25%, it is appropriate not to recalibrate the factors at this time. In the future it would be useful to know the distribution of proposed factors within the 0.10% - 0.25% range. For example, did more of the proposed country factors lie at the upper end of the range which is a why a 0.22% factor was selected. If at the next review, there are models that propose lower (or higher) country factors than the current factor of 0.22% it would be useful to understand the rationale for the new factor e.g. have there been improvements made to more recent models or do the newer models have the benefit of better quality and quantity of data? It would seem important to apply more weight to newer models if there is the belief that newer models are better at modelling the underlying risk. In respect of Coastal Flooding, it is important to understand if the data modelled for windstorm in Ireland includes or excludes coastal flood losses. A similar approach to the inclusion of coastal flood within the windstorm risk as per the approach taken to the UK would appear appropriate.	Agreed. The standard formula factor do not capture coastal flood. Further work will be done to consider how coastal flood should be reflected for all countries in the future.

Q11: Do you have any comments about the (re)assessment/(re)calibration for Guadeloupe windstorm?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
5	AMICE	Public	Yes	The update of the parameters for the three French ultramarine territories seems a bit too harsh at least in Martinique; an increase could be expected but not that high. As mentioned in the consultation paper, uncertainty remains quite high for all the three French ultramarine territories and given the limited number of models compared nearly doubling all the risk factors is too conservative even to take into account the Hurricane IRMA.	The new factors where set to respect a logic agreed during the discussions with the cat risk expert network where Martinique risk is lower than Guadeloupe which is itself lower than Saint Martin. Martinique also has the lowest relative increase of the three territories (+57% increase). Accounting for IRMA is in the nature of revising tail risk for some Caribean models and thus windstorm factors for French ultramarine territories. Initial model outputs were suggesting even higher factors, a moderate approach has been followed to avoid overshooting.

Q12: Do you have any comments about the (re)assessment/(re)calibration for Martinique windstorm?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
6	AMICE	Public	Yes	See our answer to Q11.	See response to Q11
7	Insurance Europe	Public	Yes	The evidence does not support EIOPA's proposed calibration. The update of the parameters on ultramarine territories is considered to be overly conservative, at least in Martinique. An increase could be expected, but not this big. As mentioned in the consultation paper, for all of the three French ultramarine territories, uncertainty remains quite high. Given the limited number of comparable models, nearly doubling all the risk factors is too conservative even to take into account Hurricane IRMA.	The new factors where set to respect a logic agreed during the discussions with the cat risk expert network where Martinique risk is lower than Guadeloupe which is itself lower than Saint Martin. Martinique also has the lowest relative increase of the three territories (+57% increase). Accounting for IRMA is in the nature of revising tail risk for some Caribbean models and thus

					windstorm factors for French ultramarine territories. Initial model outputs were suggesting even higher factors, a moderate approach has been followed to avoid overshooting.

Q13: Do you have any comments about the (re)assessment/(re)calibration for St-Martin windstorm?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
8	AMICE	Public	Yes	See our answer to Q11.	See response to Q11
9	Insurance Europe	Public	Yes	The evidence does not support EIOPA's proposed calibration. See comments to Q12	See response to Q12

Q14: Do you have any comments about the (re)assessment/(re)calibration for La Reunion windstorm?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
10	AMICE	Public	Yes	See our answer to Q11.	See response to Q11
11	Insurance Europe	Public	Yes	The evidence does not support EIOPA's proposed calibration. See comments to Q12	See response to Q12

Q17: Do you have any comments about the (re)assessment/(re)calibration for Romania flood?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
12	Actuarial Association of Europe	Public	Yes	According to the current calibration of Standard Formula, risk coefficients for flood risk vary from 0,.10% (Belgium) to 0.35% (Slovak Republic). Romania's neighbour countries have the following factors: • 0,.16% (Republic of Bulgaria); • 0,.25% (Republic of Hungary).	Noted. EIOPA has also revised the zonal weights to ensure that they reflect the latest view of the risk by recalibrating all zones for Romania and not just the Bucuresti region.

				Romania's factor has been 0,.4% until 2017, and then lowered to 0,.30% in 2017. The reduction was supported by comparing the factor to Romania's neighbour countries (we note that no model was available in 2017). Other countries across the Danube River basin have the following flood risk coefficients: • 0,.13% (Republic of Austria) • 0,.20% (Republic of Germany) • 0,.35% (Slovak Republic) • 0,.00% (Republic of Croatia). With regards to Romania, we note the following: • A country specific map of flood hazard and risk, prepared in line with EU Floods Directive, is available at https://inundatii.ro/en/maps-portal/ . • Similarly, the EC provides an EU wide flood hazard and risk viewer available at https://discomap.eea.europa.eu/floodsviewer/ . • The Danube River represents the vast majority of the border between Romania and Republic of Bulgaria, which suggests a similar flood hazard for the two countries in the Danube region. • Compared to Republic of Hungary, Romania has a smaller exposure to the Danube River, due to the large Hungarian plateau and the two major rivers crossing the Republic of Hungary (Danube in the centre, and River Risa in the East). Romania has also smaller and limited plateaus, with internal rivers in the country with smaller average discharges (3-9 times lower than Republic of Hungary). We also note EIOPA's proposal to recalibrate the flood risk factor is based on CRESTA zones (instead of NUTS risk zones currently used). In conclusion: • We are supportive of reducing the risk factor (without the PAID effect) for Romania. In our view, a suitable range for the risk factor is 0,.10% to 0,.20%, which is consistent with EIOPA's proposal of 0,.13%. (For the avoidance of doubt, our estimates are largely based on public data and comparisons with neighbouring countries, and ranges are only given to support or otherwise proposals in EIOPA's consultation, and not as a replacing factor). • Similarly, with the PAID effect, we deem a suitable range for the risk factor to be from 0,.09% to 0,.12%. • With regards to the Bucuresti Bucharest area (PC2 ZONE 01-07): - ZONE 01-06 is characterised by mostly units of blocks of flats residential and commercial buildings, which reduces impact of river floods. Due to its geography, flash floods and marine floods are significantly less likely, with industrial exposure being marginal. We therefore deem that	

				exposure to flood in the Bucharest Bucuresti area ZONE 01-06 is marginal, and the risk coefficient for flood should be minimum at 0,.40%. - ZONE 07 has some exposure to flood risk and therefore the risk coefficient should remain as originally was at 1,.3%. Finally, we would suggest the use of risk maps for Romania (links are provided above), given that the current split by counties is less accurate and not in line with how flood risk is assessed by Romanian authorities.	
13	Pool-ul de Asigurare Împotriva Dezastrelor Naturale S.A. "PAID"	Public	Yes	As noted on the page 22 of the Reassessment document (EIOPA-BoS-24/080) the currently used calibration of flood country factors for Romania, developed in 2010 does not account for the presence of Romanian Natural Disaster Insurance Pool (PAID), which covers the first 100,000 or 50,000 RON of damage for residential exposures (depending on the type of dwelling) resulting from earthquake, flood and landslide risks. This situation has forced the Romanian market to use proxy solutions in order to more adequately capture their Natural Catastrophe gross exposures while still using the Standard Formula factors. For facultative insurers covering only the excess loss over the PAID limits this often meant deducting the PAID limits from residential sums assured (which tended to overestimate their gross risk) while PAID has monitored its actual solvency needs (in accordance with the true risk profile) via the ORSA process, in parallel with PAID limit-based Solvency II Standard Formula calculation. None of these proxy solutions is perfect, and while we welcome the EIOPA's efforts to capture the PAID impact, we strongly feel that the outcome of such process should benefit equally PAID and the insurers offering the facultative coverage. It has to be stressed that "one country factor fits all" solution is not in this case possible due to the nature of the underlying problem. At 1 in 200 return period the vast majority of residential gross risk will still be taken by PAID, which makes factors developed for facultative insurers, such as the currently proposed FL country factors for Romania, not usable for PAID. This has been recognized by EIOPA on pp. 23 and 26 of the Reassessment document where it is stated that "The (new) factor will not be adequate for the risks taken by the PAID scheme" and leaves PAID without workable Standard Formula based solution for the calculation of SCR. Based on the detailed information provided on p 24 of the reassessment document we understand that when deriving the country factors for Romania, Nat Cat model output from several providers was analyzed. We expect such outputs to include 1 in 200 ground up flood market exposures and the 1 in 200 facultative market exposures considering PAID deductibles (with splits into residential and commercial parts). We anticipate that one can get 1-200 PAID	The standard formula can not capture in the delegated acts two specific factors for Romania Flood (one for PAID exposure and one for the companies offering the additional coverage). The proposal is therefore to have the in the delegated acts a factor valid fo the companies offering additional coverage. For PAID exposure, a capital add-on could be implemented (Article 37(1)(a) of the Directive) until the approval of a partial internal model..

				exposures from the same models, from which the PAID specific factors could be easily derived. We stress the importance of PAID on the Romanian market both in terms of the share in the overall Nat Cat market risk exposure as well as the strategic role and the social purpose it serves. According to the Annual Report of Financial Supervisory Authority in Romania, at the end of December 2023, PAID covered 2 047 566 insured dwellings (out of the total number of 9 655 685) compared to 1 685 094 dwellings also covered by companies offering facultative policies. In summary, we strongly believe that the current reparameterization of the Romanian flood factors should cover both PAID and the companies offering the facultative coverage via separate country factors. This will allow PAID to continue using standard formula without resorting to costly and lengthy to implement partial internal model solutions that would put unduly high burden on PAID's resources, while at the same time not giving any additional insights into the company risk exposure beyond what is already recognized during normal ORSA process.	

Q18: Do you have any comments about the (re)assessment/(re)calibration for Czechia flood?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
14	Actuarial Association of Europe	Public	Yes	The calibration changes proposed for Czechia are relevant and reflect past experience.	Noted.

Q20: Do you have any comments about the (re)assessment/(re)calibration for Belgium flood?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
15	Actuarial Association of Europe	Public	Yes	We agree on the materiality assessment. We note that, following the Bernd event, different insurers have developed adaptation measures including warning/alerts sent to their clients. A more thorough consideration of these developments would probably have been beneficial to recognise the investment from these insurers and their related impact. We recommend to better integrate	Noted. EU member states and individuals have implemented measures to adapt to these changes, and this trend is likely to continue. These are fundamental to managing the new emerging risks and, at the

				adaptation and prevention measures which are developed by insurers in the SF calibration for flood risk.	same time, and because it is technically sound, a way should be found to recognise the associated risk reduction in the SF. EIOPA has planned to initiate further work on the assessment of the prudential treatment under Solvency II of adaptation measures in Nat Cat insurance.

Q22: Do you have any comments about the (re)assessment/(re)calibration for Germany flood?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
16	Actuarial Association of Europe	Public	Yes	The calibration for the parameters for flood risk in the natural catastrophe risk module is conservative. Even the enormous damage caused by the flooding of the Bernd rainstorm in 2021 is covered by the current calibration by far.	As regards the country factor for flood, analyses have shown that it is deemed appropriate. The resulting 1 in 200 year standard formula gross loss for flood risks can well cope with severe flood events like Bernd.

Q24: Do you have any comments about the (re)assessment/(re)calibration for Ireland flood?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
17	Actuarial Association of Europe	Public	Yes	We welcome the proposal to include Irish flood risk in the calibration of the Standard Formula ('SF'). Flood is a non-trivial peril for the Irish market, and we believe exclusion of this peril before now has been an oversight. However, we note that availability of data, particularly on a 1-in-200 year basis, is very scant. It is widely acknowledged in the Irish market that any vendor models available are subject to limitations. Owing to lower population density than some major European nations, and a more diverse geographic and infrastructural landscape than some central European nations, commercial models for the Irish market are understood to be less well developed and less sophisticated. Therefore, we consider that caution should	Indeed, flood includes pluvial and fluvial and that coastal flood for Ireland is included in the Windstorm parameterisation. The results have been reviewed to confirm no errors. Please note that the regional factors already reflect diversification within a region and that the calibration allows for flood defenses to be taken into account.

				be exercised in placing excessive reliance on the outputs of a single model for the purpose of SF calibration. In particular, we urge EIOPA to avoid undue future instability of the SF by over relying on a single model. Owing to the country's geographic features, flood events in Ireland are typically very localised phenomenon. Hence, we believe it appropriate to allow for a large degree of diversification between CRESTA zones in the calibration of the SF. We also recognise that Ireland is highly exposed to coastal floods. While pluvial and fluvial floods are also features, floods of this nature are understood to be of lower risk compared to mainland European nations. Having noted the exposure to coastal flood, we also recognise that such risk is more prominent along the Atlantic facing western seaboard which has a significantly lower population density than the east coast where property values and concentration are far greater. Furthermore, as noted in our response to questions 8, 47, 48 and 49, we have called for coastal flooding risk to primarily be recognised under the windstorm peril within the SF, similar to the treatment adopted for the UK. We urge EIOPA to avoid double counting of coastal flood risk by applying penal country charges for both windstorm and flood simultaneously. The proposed country factor of 0.17% is perceived to be high for Ireland relative to other countries if based on flood excluding coastal flood. We also call on EIOPA to carefully consider the consumer impact of penal CRESTA zone factors which are potential calibrated on scant data. For example, we note that zones IE-10-KY and IE-05-DL have relatively high factors of 4.1 and 3.2 respectively. This compares to factors of 0.5 and 0.7 for zones IE-07-GY and IE-18-MO. This is despite all four zones sitting on the Atlantic coast. We are concerned that unduly high factors might have the unintended consequence of discouraging insurers from offering cover in certain regions and recommend that EIOPA consider credibility of the calibration data or else dampen the significant differentiation of CRESTA zone factors across these regions.	The high concentration referenced in the response does explain the higher zonal weights for KY and DL. Finally, the expert view is that the impact of the zonal weight is not material in the overall calculations and so should not affect pricing so materially as to result in exclusion.

Q25: Do you have any comments about the (re)assessment/(re)calibration for Norway flood?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
18	Actuarial Association of Europe	Public		We agree that there is a need to recalibrate the parameter for Norway flood. The material does, however, not provide enough detail regarding underlying models or assumptions to make a proper assessment of the reasonableness regarding country specific parameter. Country factor for Norway Flood: The executive summary lists a country factor of 0.05 for Flood risk in Norway. We interpret this number as 0.05% which is reasonable compared to the Norway windstorm factor of 0.08%. A factor of 0.05% is also given in the section on the reassessment of Flood risk for Norway.	Noted.

Q26: Do you have any comments about the (re)assessment/(re)calibration for Sweden flood?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
19	Actuarial Association of Europe	Public	Yes	The executive summary lists a country factor of 0.045 for Flood risk in Sweden. We interpret this number as 0.045% which is reasonable compared to the Sweden windstorm factor of 0.085%. A factor of 0.45% is given in the section on the reassessment of Flood risk in Sweden. We consider this to be a typesetting error and that the factor should read 0.045%.	Noted and corrected.

Q27: Do you have any comments about the (re)assessment/(re)calibration for Finland flood?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
20	Insurance Europe	Public	Yes	The evidence does not support EIOPA's proposed calibration. We agree that there is a need to recalibrate the parameters for flood in Finland and the other Nordic countries. But the resulting capital charges for flood seems high in Finland in relation to historical loss data. In particular, the resulting capital charges indicate a split between windstorm and flood losses	Thank You. The Nordic factors (incl. Finland) are in line with each other, they base on a forward-looking simulation model and a few alternative opinions on it. The factors are deemed appropriate, low compared to other parts of

				are not in line with the historical loss data in Finland, where windstorm losses are more prominent.	Europe. The current Windstorm factors are not calibrated and thus not equally comparable.
21	Pohjola Insurance Ltd	Public	No	The proposed country factor of 0.04% would lead to a flood risk as high or higher as windstorm risk in Finland. This is not in line with the historical claims experience. In Finland severe windstorms have been a significantly greater risk than severe floods. Following reasons might be behind a large country factor: 1) Insurance policies in Finland do not cover flood claims in locations where the return period for flood is below 1/50 years. The country factor modeling for Finland includes return periods as low as 1/20 years. All flooding between 1/20 and 1/50 years should be removed as it is not insurable and only the risk of water rising above the 1/50-year level should be modeled. 2) Insurance policies in Finland typically have all risk cover against natural catastrophes and consequently the sum insured for flood will be significantly larger than the actual flood risk exposure as many locations with no flood risk will technically have sum insured against floods. A smaller country factor should be used to adjust for the high volume of sum insured in areas with no flood risk. 3) The flood risk controls in Finland are better that than modeled and as a result the modeled flooding scenarios are too high. 4) The resolution of 30m x 30m used in modeling can lead to inaccurate and too high results. Using the resolution of 5m x 5m leads to significantly lower results. The proposed zonal weights for specific areas of Finland seem high when compared to the zonal weights of other Nordic countries since they are much higher than any of the weights seen in other Nordic countries. In addition, some of the correlation parameters are difficult to understand, like the correlation of the zones FI17-FI18 with the zones FI6-FI9, since these areas are geographically far from each other.	Thank You. The factor is based on historical information using a stochastic simulation model and determistic laws of water dynamics having two alternative opinions on it all. While the observed data does not show any severe fluvial flooding since the 1960's and adaptation measures may well be a partial reason for it, in the world of climate change flood estimation cannot merely rely in that. Pluvial flooding is deemed to increase, in flood damages adaptation measures play a central role and those are not equally developed for pluvial floods as they are for fluvial. Also the concentrated land-use has a role. The factors are deemed appropriate, in line with other Nordic countries and low compared to the other parts of Europe. Floods more frequent than the nationally compensated exceptional floods of 1/50a are a technical feature not affecting the 1/200a cases that are been estimated in the OEP and should not biase the data. The exposures of areas without flood risk would reduce country factor assuming that the hazard is correctly estimated zero and country factor includes such exposures in the denominator and as factors in the numerator. Risk

					prevention measures have surely diminishing effects. However the country factor was on part chosen on the lower end due to the shadow modelers attempts to take prevention measures into consideration for the fluvial floods. Pluvial flood adaptation nevertheless lies behind. Resolution is a technical issue but 30x30 m modelling is not unusual and is generally considered to be of high quality and perform well in many countries worldwide. The resolution of the estimated exposure data on a level of a cresta zone is a more prominent problem. Zonal weights are high in Finland. The terrain is heterogeneous, risk zones large and largely administrative areas that are in turn often splitted on historical bases on drainage basins having a higher weights than the ones not based on them. These probably affect both the large weights and the variations within. Correlations for the zones FI17-FI18 with the zones FI6-FI9 represent a calibrated model feature of extreme events and are not significant issue, therefore better to keep them.

Q28: Do you have any comments about the (re)assessment/(re)calibration for the Netherlands flood?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
22	Actuarial Association of Europe	Public	Yes	- EIOPA states on page 45 "There is still uncertainty regarding the plans on a public-private scheme in the Netherlands for primary flood risk. However, it might be that the primary flood risk is insured in the future. Therefore, this uncertainty leads us to being more conservative in setting the NL flood factor for the current flood coverage." - In our view, the country factor should be entirely based on secondary dikes. The determination and substantiation of the country factor for the Netherlands should not include any arguments that refer to the possible extension to primary dikes. Primary dikes are currently not insured and are therefore not part of the risk. The possible expansion to primary dikes (in any form) is at the most a trigger to revise the parameters. The current wording suggests that this has led to a more conservative factor than the actual risk that is now insured and in our view this is unjustified. - The current flood modelling includes both heavy local precipitation and flooding of secondary flood defences. There are insurers who only insure precipitation, and so no distinction is possible. A discount on the impact could be considered. - Compared to the vendor models, we see in the Dutch market that landscape height plays a much larger role in the 1–200-year scenario than can be modelled on the basis of 2-digit postal code areas. EIOPA wanted to connect with the CRESTA classification for simplicity reasons as they already had for Hail and Windstorm, but in contrast to these capital requirements, there can be major differences for Flood within a zone of the current CRESTA classification. We would like to advise EIOPA to consider refining the CRESTA classification to 4-digit postal code areas for Flood in the Netherlands, in order to better express the height differences (especially in eastern Netherlands).	Thank you for your feedback. The latest developments on the national public-private scheme in the Netherlands are updated in the paper now. The new country factor of 0.035% for flood risk in NL is still valid, because the secondary flood and pluvial floods have a higher market penetration in NL. The resulting country factor ranged from 0.028% to higher than 0.035% but lower than 0.045% for flood in the Netherlands. This range includes three (shadow) model vendors that take both secondary floods and pluvial floods into account. Therefore, 0.035% for flood is considered appropriate. The flood factor is based on both secondary flood and pluvial floods. If a company deviates significant from it, it would be good to envisage to use an internal model. The refinement of the CRESTA classification from 2-digit to 4-digit postal code areas for flood in the Netherlands will be considered in the next calibration exercise.

Q29: Do you have any comments about the (re)assessment/(re)calibration for Denmark flood?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution

23	Insurance Europe	Public		Agree that the data supports the calibration. The main reason for flood risk in Denmark is coastal floods; when wind pushes seawater down through the Øresund and the inland Danish waters, the water can be pushed up through streams (and causing fluvial), as well as during strong storms on the west coast. The 0.04 factor is considered suitable for Denmark if the flood includes coastal flooding	Thank You. The borderline between different types of floods in Denmark is crucial as the national scheme covers fluvial floods and as coastal floods in general are not included in the S2 Flood Catastrophe. At the same time it is known that the borderline is hard to nail with storm surge based fluvial floods or for that matter between pluvial and fluvial floods too. While the dynamics of the model may include even storm surge origins of fluvial floods, those floods fall outside of the flood factor either considered as coastal floods not in the scope, or fluvial floods covered by the Danish national scheme. So the answer is 'no, storm surge fluvials are not covered'. The significant flood type in Denmark was pluvial flood. As the data did not directly include for instance the Copenhagen event, it was considered using alternative means and the actual simulation model was deemed sufficiently well describing the pluvial effects.
24	Actuarial Association of Europe	Public	Yes	The executive summary lists a country factor of 0.04 for Flood risk in Denmark. We interpret this number as 0.04% which is reasonable compared to the Denmark windstorm factor of 0.25%. A factor of 0.04% is also given in the section on the reassessment of Flood risk for Denmark.	Noted.

Q32: Do you have any comments about the (re)assessment/(re)calibration for France hail?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution

25	AMICE	Public	Yes	Given the experience over the last few years, a recalibration of the regional parameter for the hail peril seems appropriate to better capture the risk considered.	Noted.
26	Insurance Europe	Public	Yes	Agree that the data supports the calibration. Given the experience over the last few years, a recalibration of the regional parameter for the hail peril seems appropriate to better capture the risk considered.	Noted.

Q34: Do you have any comments about the (re)assessment/(re)calibration for Germany hail?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
27	Insurance Europe	Public	Yes	The evidence does not support EIOPA's proposed calibration. The increase of the factor motor hail (from 5) to 10 seems to be reasonable given the evidence. However, raising the country factor hail and setting it to 0,03 is not justified: •GDV data show that household and commercial contents play a subordinate role in windstorm and hail. The risk is overestimated by the proposed factor. This is not adequately reflected in the standard formula. •The substantial overall increase of the risk factors (country factor plus motor factor) for motor adds significance to the risk weights of the different risk zones in Germany. If the country and the motor factors for hail were increased as proposed by EIOPA, any discrepancies that may exist between the given risk weights by the standard formula and the actual hail risk would even enhance these discrepancies. If only the factor motor hail was adapted, any discrepancies would be less stressed. •Against the background of an envisaged doubling or even tripling of the motor hail risk factors for Germany, the following aspect should be considered: evidence clearly shows that the risk factor for motor overestimates the risk for flood. A reduction of the motor flood factor should be considered.	The motor factor is not country-specific and has to fit for all countries. However, the proposed motor factor of 10 is still relatively low for Germany (models gave results between 15 and even more than 20 for Germany). The hail risk for motor business is considered to the driving hail risk for the majority of undertakings. Therefore, and given the fact that hail risk is the most increasing peril due to climate change the proposed factor of 0.03% is deemed appropriate.
28	Gesamtverband der Deutschen Versicherungswirtschaft e. V. (GDV)	Public	Yes	The increase of the factor motor hail (from 5) to 10 seems to be reasonable given the evidence. However, raising the country factor hail and setting it to 0,03 is not justified:	The motor factor is not country-specific and has to fit for all countries. However, the proposed motor factor of 10 is still relatively low for Germany (models gave results between 15 and even more

				GDV data show that household and commercial contents play a subordinate role in windstorm and hail. The risk is overestimated by the proposed factor. This is not adequately reflected in the standard formula. The substantial overall increase of the risk factors (country factor plus motor factor) for motor adds significance to the risk weights of the different risk zones in Germa-ny. If country and motor factor for hail were increased as proposed by EIOPA, any discrepancies that may exist between the given risk weights by the standard formula and the actual hail risk would even enhance these discrepancies. If only the factor motor hail was adapted, any discrepancies would be less stressed. Against the background of an envisaged doubling or even tripling of the motor hail risk factors for Germany, the following aspect should be considered: Evidence clearly shows that the risk factor for motor overestimates the risk for flood. A re-duction of the motor flood factor should be considered.	than 20 for Germany). The hail risk for motor business is considered to the driving hail risk for the majority of undertakings. Therefore, and given the fact that hail risk is the most increasing peril due to climate change the proposed factor of 0.03% is deemed appropriate.
29	Actuarial Association of Europe	Public	Yes	The increase of the factor for motor hail (from 5) to 10 seems to be reasonable given the evidence. However, raising the country factor for hail and setting it to 0.03 is not justified: GDV data show that household and commercial contents play a subordinate role in windstorm and hail. The risk is overestimated by the proposed factor. This is not adequately reflected in the standard formula.	The motor factor is not country-specific and has to fit for all countries. However, the proposed motor factor of 10 is still relatively low for Germany (models gave results between 15 and even more than 20 for Germany). The hail risk for motor business is considered to the driving hail risk for the majority of undertakings. Therefore, and given the fact that hail risk is the most increasing peril due to climate change the proposed factor of 0.03% is deemed appropriate.

Q36: Do you have any comments about the (re)assessment/(re)calibration for Luxembourg hail?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution

30	Actuarial Association of Europe	Public	Yes	A recalibration has been made for Luxembourg, resulting in a country factor that is considerably higher than that of neighbouring countries. However, EIOPA noted that Luxembourg only has one risk zone, which is assigned a weight of 1. For Windstorm and Flood, Luxembourg's country factor is comparable to its neighbouring countries, which seems inconsistent.	Disagree. The hail country factor for Luxembourg (that, as correctly mentioned in the comment, has only one risk zone which is weighted with 1) has been calibrated such that it results very similar to that of the surrounding zones (FR 54, FR 57, DE 54, DE 66, BE 4 and BE 6), obtained by multiplying the country factors of the surrounding countries (France, Belgium and Germany) with the relevant risk zone weights. This same result holds also for windstorm (for which country factors of the relevant countries have not been reviewed) and for flood (for which the country factor has been reviewed for Belgium and Luxembourg).

Q37: Do you have any comments about the (re)assessment/(re)calibration for Netherlands hail?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
31	Actuarial Association of Europe	Public	Yes	The Hail module has been calibrated in the past for the event type “severe convective storm”. This means that this module not only contains hail, but also tornadoes and very heavy local rain showers. This could create some overlap with the new Flood component with regard to flooding from heavy rainfall. The question is how EIOPA views this “double counting”, but also how this relates, for example, to insurers who cover flooding due to rainfall, but not flooding from secondary dikes. For such insurers, the SF SCR Flood could potentially be too high.	Disagree. EIOPA does not consider heavy local rain showers from the proposed definition of the peril Severe Convective Storm (SCS) in the Hail standard formula module. With respect to the estimation of the country factors, model vendors generally do not include rainy showers among the subperils of the SCS so no double counting issue is envisaged, especially in 1 in 200 year scenarios.

					The second part of the question related to the flood module. The flood factor takes into account that take both non-primary fluvial and pluvial floods into account. If a company deviates significantly from this, it would be good to envisage to use an internal model.

Q39: Do you have any comments about the (re)assessment/(re)calibration for Norway hail?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
32	Actuarial Association of Europe	Public	Yes	We agree with EIOPA's conclusion of hail not being a material risk for Norway and therefore not calibrate a country factor.	Noted.
33	Finance Norway	Public		As mentioned above we do think the storm model should be reevaluated And the total capasity per event for NNP is set at max 16 000 mill NOK. Based on statistical model it seems that the Solvency II catastrophy is too high. Finance Norway have explained this for the Norwegian Finanstilsynet. And we can offer more explanation if needed.	This information was unfortunately not provided in the initial call for evidence EIOPA had run to define the scope of the 2023/2024 reassessment exercise. EIOPA has nevertheless checked with the Cat Risk Expert Network and corresponding cat models. The current factor seems indeed to be on the conservative side, but one model was even providing a larger factor. EIOPA will therefore not consider the recalibration for this exercise. However, EIOPA has a mandate to perform this reassessment regularly and will consider this for the next exercise. For windstorm risk for Norway, please see answer to Finanstilsynet public comment to Q53.

Q40: Do you have any comments about the (re)assessment/(re)calibration for Motor for hail?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
34	Actuarial Association of Europe	Public	Yes	The factor to reflects the increased vulnerability of motor insurance to hail has doubled. Insurers who primarily focus on motor insurance may experience a material increase of the SCR. It is noted that different insurers have developed adaptation measures including warning/alerts sent to their clients. We are	Noted. As stated in the Consultation Paper, all modelled results suggest that a motor factor of 5 is too low, on average the models suggest a motor factor equal to 15. The factor in the SF is the same for all countries, but the modelled result indicates that this factor would vary by country. After the Delphi round, a new factor of 10 is proposed as a reasonable balance between modelling results (and variations observed between countries) and the current factor. As for the reflection of adaptation measures in the SF, EIOPA recently performed a study to analyse to what extent climate-related adaptation measures could influence non-life underwriting risks in terms of premium risk, on the basis of a data collection from non-life insurance undertakings in 2022. A qualitative survey was included in the data collection to get further insights into potential effects on reserve risk and natural catastrophe risk. The findings indicate a potential reduction in premium risk, but the collected data sample was considered too small to allow for a robust conclusion from a prudential perspective. Hence, EIOPA could not conclude whether a dedicated prudential treatment of climate-related adaptation measures in the capital requirements for premium risk is justified. The analysis will be repeated in the future when more and better data will be available. An extension to Nat Cat risk will also be considered. For further insights, please refer to the mentioned Consultation Paper at the following link: https://www.eiopa.europa.eu/document/download/540706b0-16a3-4990-8dbb-3280726fb1e8_en?filename=Consultation%20Paper%20on%20the%20Prudential%20Treatment%20of%20Sustainability%20Risks.pdf

				wondering how this could be better reflected in the standard formula approach.	

Q41: Do you have any comments about the (re)assessment/(re)calibration for France subsidence?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
35	AMICE	Public	Yes	On the topic of subsidence, the French National Scheme is currently being reviewed and the definition of the subsidence covered by the scheme is supposed to be altered. In such a context, strongly recalibrating the parameter for the French regions is premature since the possible interactions with the modification of the French National Scheme are not known yet. Moreover, it is important to note that even though the last two years has seen an exceptional claim level and mindful of the current climate change context, one should be cautious when inferring a trend from few observed points, otherwise EIOPA will run the risk of overestimating the evolution of this risk. It is noted that different insurers have developed adaptation measures including warning/alerts sent to their clients. We are wondering how this could be better reflected in the standard formula approach.	French subsidence risk review was discussed and calibrated with the help of the CCR who has significant experience on this risk and has the correct legal vision of the scheme and its continuous developments. Historical data suggest a clear change in subsidence risk trend from 2017 onwards, which in 2024 was estimated significant enough to be considered as one of the reason justifying a recalibration.
36	Insurance Europe	Public	Yes	The evidence does not support EIOPA's proposed calibration due to modifications in the French National Scheme. On the topic of subsidence, the French National Scheme is currently being reviewed and the definition of the subsidence covered by the scheme is supposed to be altered. In such a context, strongly recalibrating the parameters for the French regions could somehow be premature since we do not know yet the possible interactions with the modification of the French National Scheme. Moreover, it is important to note that though the last two years have seen an exceptional claim level and, whilst being mindful of the current climate change context, one should be cautious in suggesting a trend from a few observed points and advocate for some moderation in the changes proposed.	French subsidence risk review was discussed and calibrated with the help of the CCR who has significant experience on this risk and has the correct legal vision of the scheme and its continuous developments. Historical data suggest a clear change in subsidence risk trend from 2017 onwards, which in 2024 was estimated significant enough to be considered as one of the reason justifying a recalibration.

Q42: Do you have any comments about the (re)assessment/(re)calibration for Belgium subsidence?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
37	AMICE	Public	Yes	Assuralia would like to highlight the response that was submitted by Insurance Europe on the topic of subsidence, which is based on feedback of the Belgian insurance companies, i.e.: The calibration for subsidence risk in Belgium should be lowered. 1. Subsidence risk is limited to certain regions due to geography The proposed zonal relativity factors do not appear to make much sense. The zones where subsidence is actually possible are very limited – these are limited to the zones containing the Kortrijk and Boom formations. In addition, no damage has been reported in the Boom region. Furthermore, subsidence is only covered if it is caused by a natural phenomenon (cf. art. 124 § 1 d) wet verzekeringen). Hence, in zones outside of the Kortrijk and Boom formations, the relativity factor should be close to zero given the geology is not prone to subsidence (as covered by law). Especially in Cresta zones 4, 5 and 6 in (south-east Wallonia), the zonal relativity factors should be equal to zero. Insurance Europe, therefore, requests further information on the rationale of the zonal calibrations for the Belgian subsidence risk and also a recalibration. The Belgian insurance companies are keen to further discuss the issue and to provide relevant models and information on the geology of Belgium to EIOPA. On the map below (sent seperately via email), you can find a reminder of the cresta zones. In the next figure, you can find the identified risk areas. In the fully coloured areas, subsidence risk is present. In the shades areas, the risk is only local, meaning the risk is lower. 2. Legal changes do not imply changes in observed subsidence damage It is referred to the following paragraph: "As for Belgium, in its interpretative Law of 29 October 2021, the legislator confirmed damage caused by subsidence are fully included in the mandatory cover of natural catastrophe perils included in the fire insurance policy for simple risks. Since the last calibration, losses due to subsidence have increased in Belgium." The fact that a recent change in the law now confirms that subsidence is a mandatory cover of fire insurancesimple risks, does not imply and does not prove that there will be more damage due to subsidence. EIOPA should substantiate this claim.	The calibration of subsidence Belgium was developed based on the subsidence model for Belgium of one of the members of EIOPA NATCAT expert network. The analysis included a risk map for all the Belgian territory and a cross-country comparison with France: comparison with the border regions and other areas in France with similar level of risks. The difference in the exposure to subsidence risk between Belgium and France was dully considered. The specific geology and the building mix in Belgium was taken into account. This is reflected with a lower risk factor for Belgium than for France.

				3. Limited claims in the past There have been a limited number of claims since the aforementioned legal changes. It is recognised that climate change could potentially raise these risks. The severity and frequency of droughts could be higher as a consequence of climate change, which is an important risk driver for subsidence. At the same time, EIOPA needs to recognise that these risks are only a mandatory cover for fire insurance simple risks (e.g. for housing, hospitals, schools and religious buildings). These insurance covers are almost always only one year contracts. Hence, insurance companies have the ability to raise premiums when a raise in subsidence is observed. 4. EIOPA's study is not published and the expert judgment cannot be verified EIOPA is asked to publish its study on the increase of subsidence losses in Belgium, so that stakeholders can verify EIOPA's expert judgment. 5. The data on France cannot be extrapolated to Belgium The CCR data cannot simply be extrapolated for Belgium. The quality of buildings and building standards (e.g. for foundations etc) in Belgium is not comparable to France.	
38	Insurance Europe	Public	Yes	The calibration for subsidence risk in Belgium should be lowered 1. Subsidence risk is limited to certain regions due to geography The proposed zonal relativity factors do not appear to make much sense. The zones where subsidence is actually possible are very limited – these are limited to the zones containing the Kortrijk and Boom formations. In addition, no damage has been reported in the Boom region. Furthermore, subsidence is only covered if it is caused by a natural phenomenon (cf. art. 124 § 1 d) wet verzekeringen). Hence, in zones outside of the Kortrijk and Boom formations, the relativity factor should be close to zero given the geology is not prone to subsidence (as covered by law). Especially in Cresta zones 4, 5 and 6 in (south-east Wallonia), the zonal relativity factors should be equal to zero. Insurance Europe, therefore, requests further information on the rationale of the zonal calibrations for the Belgian subsidence risk and also a recalibration. The Belgian insurance companies are keen to further discuss the issue and to provide relevant models and information on the geology of Belgium to EIOPA.	The calibration of subsidence Belgium was developed based on the subsidence model for Belgium of one of the members of EIOPA NATCAT expert network. The analysis included a risk map for all the Belgian territory and a cross-country comparison with France: comparison with the border regions and other areas in France with similar level of risks. The difference in the exposure to subsidence risk between Belgium and France was dully considered. The specific geology and the building mix in Belgium was taken into account. This is reflected with a lower risk factor for Belgium than for France.

				On the map below, you can find a reminder of the cresta zones. In the next figure, you can find the identified risk areas. In the fully coloured areas, subsidence risk is present. In the shades areas, the risk is only local, meaning the risk is lower. (FIGURES BEEN SENT BY EMAIL) 2. Legal changes do not imply changes in observed subsidence damage It is referred to the following paragraph: As for Belgium, in its interpretative Law of 29 October 2021, the legislator confirmed damage caused by subsidence are fully included in the mandatory cover of natural catastrophe perils included in the fire insurance policy for simple risks. Since the last calibration, losses due to subsidence have increased in Belgium.The fact that a recent change in the law now confirms that subsidence is a mandatory cover of fire insurancesimple risks, does not imply and does not prove that there will be more damage due to subsidence. EIOPA should substantiate this claim. 3. Limited claims in the past There have been a limited number of claims since the aforementioned legal changes. It is recognised that climate change could potentially raise these risks. The severity and frequency of droughts could be higher as a consequence of climate change, which is an important risk driver for subsidence. At the same time, EIOPA needs to recognise that these risks are only a mandatory cover for fire insurance simple risks (e.g. for housing, hospitals, schools and religious buildings). These insurance covers are almost always only one year contracts. Hence, insurance companies have the ability to raise premiums when a raise in subsidence is observed. 4. EIOPA's study is not published and the expert judgment cannot be verified	

				EIOPA is asked to publish its study on the increase of subsidence losses in Belgium, so that stakeholders can verify EIOPA's expert judgment. 5. The data on France cannot be extrapolated to Belgium The CCR data cannot simply be extrapolated for Belgium. The quality of buildings and building standards (e.g. for foundations etc) in Belgium is not comparable to France.	
39	Actuarial Association of Europe	Public	Yes	We agree on the zero correlation between France and Belgium. The exposure to subsidence risk in Belgium differs from that in France. The hazard, particularly the presence of clay in the soil composition, is limited to specific zones in Belgium, and the building mix is also different. We question whether these differences are adequately reflected in the proposed country factor of 0.02%, which may seem high considering recent loss observations. Additionally, some relativity factors for Cresta zones with lower clay presence appear relatively high. Regarding the impact assessment, we are surprised that EIOPA used windstorm sums insured to calculate the impact of the new subsidence module. Compulsory insurance for subsidence is limited to Simple Risks, and the penetration of subsidence coverage for other risks is rather limited. We recommend re-running the impact assessment using the windstorm sums insured for Simple Risks only. This information should be readily available to catastrophe modelling firms.	The calibration of subsidence Belgium was developed based on the subsidence model for Belgium of one of the members of EIOPA NATCAT expert network. The analysis included a risk map for all the Belgian territory and a cross-country comparison with France: comparison with the border regions and other areas in France with similar level of risks. The difference in the exposure to subsidence risk between Belgium and France was dully considered. The specific geology and the building mix in Belgium was taken into account. This is reflected with a lower risk factor for Belgium than for France. EIOPA used the sum insured for Windstorm only for the impact assessment not for the calibration of the parameter.

Q44: Do you have any comments on the impact of wildfire for the European insurance sector?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
40	AMICE	Public	Yes	GENERAL COMMENTS NEW EMERGING PERILS	Noted.

				We understand that EIOPA´s new emerging perils approach suggests that new perils, which might not have been relevant for the (re)insurance sector in the past, might become more relevant as a result of climate change and therefore should be added to the perils currently covered by the Solvency II standard formula. The insurance community is still in the early stages of gathering data and modelling knowledge on these perils; It is relevant to monitor and study them, but it is still too premature to include them with relevance in the standard formula given the scarcity of data available. The fact that certain evidence of climate change impacts in certain perils and countries is found should not automatically lead to the conclusion that they should be included in standard formula. As stated in previous EIOPA´s papers on the matter, not only should a hazard increase but also its associated risk in order to be considered in the natural catastrophe risk sub-module of Solvency II. Furthermore, where the insurance penetration is low and is expected to remain low, a country/peril combination should be considered not material enough to be considered in the standard formula. Until the next recalibration phase, (re) insurers will, by working on the pricing of those perils, be able to produce enough proper data for EIOPA to build accurate models to calibrate such risks in the standard formula. Until then and given that these risks are less prevalent than the ones already integrated in the standard formula, the quantitative impact on the solvency position will not be material. It should always be ensured that in order to be included in the standard formula, the new perils/countries have a material impact for the insurance sector. Otherwise, this would add a lot of complexity without providing any significant relevant information. Moreover. some of those perils are already considered in other catastrophe risk submodules of the standard formula. Therefore, it is very complicated to define the scope and to avoid double counting. We therefore ask EIOPA to reconsider the introduction of new emerging perils. For specialized undertakings exposed to such perils we refer to the ORSA and the related supervisory review processes. Finally, the publicly funded climate related adaptation measures as well as the individual measures promoted by insurers and which limit the impact of climate change should be taken into account in future recalibrations of the natural catastrophe risk sub-module. These measures are fundamental to manage the new emerging risks and they should be recognised as a risk reduction measure in the Solvency II standard formula.	The reasons for monitoring emerging perils is that, due to climate change, the frequency and intensity of certain perils might change. Hence, perils that might not have been relevant for the (re)insurance sector in the past might become more relevant in the near future. This would need to be captured in the SF. However, prerequisite for the inclusion in SF is that the new perils/countries need to have a material impact to the insurance sector. So far, although the growing economic impact of wildfire risk has been recognized especially in Mediterranean countries (Spain, Portugal, France, Italy and Greece), EIOPA has not found evidence of a material impact for the (re)insurance sector. Moreover, the current unavailability of wildfire models for Europe would make very difficult the calibration of parameters for this peril in the SF. Thus, EIOPA will not include wildfire risk in the SF in the current recalibration exercise. However, development in the models and exposure of the (re)insurance sector to this risk across Europe will be closely followed in the coming years. The possible introduction in the SF will be reassessed in the next recalibration exercise.
41	Insurance Europe	Public	Yes	The industry acknowledges the existence of new catastrophe perils (e.g. drought, coastal floods and wildfires). Nevertheless, these perils are less	Noted.

				common, and their current exclusion would not significantly impact European solvency. For most countries, the impact of these risks is considered low (e.g. wildfire in Germany or drought in Germany and Denmark). The European insurance sector is currently monitoring, studying and pricing these perils. As such, the industry proposes to wait for more data before integrating them into the standard formula. The industry considers this approach as the most prudent. Creating dedicated submodules for these perils could also complicate correlation estimates and lead to regulatory overestimation of risk.	The reasons for monitoring emerging perils is that, due to climate change, the frequency and intensity of certain perils might change. Hence, perils that might not have been relevant for the (re)insurance sector in the past might become more relevant in the near future. This would need to be captured in the SF. However, prerequisite for the inclusion in SF is that the new perils/countries need to have a material impact to the insurance sector. So far, although the growing economic impact of wildfire risk has been recognized especially in Mediterranean countries (Spain, Portugal, France, Italy and Greece), EIOPA has not found evidence of a material impact for the (re)insurance sector. Moreover, the current unavailability of wildfire models for Europe would make very difficult the calibration of parameters for this peril in the SF. Thus, EIOPA will not include wildfire risk in the SF in the current recalibration exercise. However, development in the models and exposure of the (re)insurance sector to this risk across Europe will be closely followed in the coming years. The possible introduction in the SF will be reassessed in the next recalibration exercise.
42	Gesamtverband der Deutschen	Public	Yes	The impact of wildfires for Germany is currently low and well below the materiality threshold for the standard formula. So far, practically no	Noted.

	Versicherungswirtschaft e. V. (GDV)			damage to buildings due to wildfires has been observed - despite several hot and dry summers since 2018 and corresponding wildfires. There is therefore no reason to include the risk of wildfires in the standard formula for Germany in the foreseeable future. Given that there is a certain materiality of wildfire, and it is included in the standard formula, there must be no double counting of the risk.	The reasons for monitoring emerging perils is that, due to climate change, the frequency and intensity of certain perils might change. Hence, perils that might not have been relevant for the (re)insurance sector in the past might become more relevant in the near future. This would need to be captured in the SF. However, prerequisite for the inclusion in SF is that the new perils/countries need to have a material impact to the insurance sector. So far, although the growing economic impact of wildfire risk has been recognized especially in Mediterranean countries (Spain, Portugal, France, Italy and Greece), EIOPA has not found evidence of a material impact for the (re)insurance sector. Moreover, the current unavailability of wildfire models for Europe would make very difficult the calibration of parameters for this peril in the SF. Thus, EIOPA will not include wildfire risk in the SF in the current recalibration exercise. However, development in the models and exposure of the (re)insurance sector to this risk across Europe will be closely followed in the coming years. The possible introduction in the SF will be reassessed in the next recalibration exercise. Please note that considerations of possible double counting of the

					wildfire risk have been added in the report.
43	Actuarial Association of Europe	Public	Yes	Given the increasing temperatures across the continent and prolonged period of hot dry weather becoming a new norm do you expect any significant trends in the near term for countries currently not included in the wildfire assessment? Country-specific comments: - Belgium-specific comment: For Belgium, we agree on the low materiality of this peril. The concentration of property risk in densely forested areas is low and significantly below the high concentration of risk present in other parts of the country. When considering the hazard component, this risk is currently not perceived as material. - Germany-specific comment: The impact of wildfires for Germany is currently low and well below the materiality threshold for the standard formula. So far, practically no damage to buildings due to wildfires has been observed - despite several hot and dry summers since 2018 and corresponding wildfires. There is therefore no reason to include the risk of wildfires in the standard formula for Germany in the foreseeable future. Given that there is a certain materiality of wildfire, and it is included in the standard formula, there must be no double counting of the risk.	Noted. The reasons for monitoring emerging perils is that, due to climate change, the frequency and intensity of certain perils might change. Hence, perils that might not have been relevant for the (re)insurance sector in the past might become more relevant in the near future. This would need to be captured in the SF. However, prerequisite for the inclusion in SF is that the new perils/countries need to have a material impact to the insurance sector. So far, although the growing economic impact of wildfire risk has been recognized especially in Mediterranean countries (Spain, Portugal, France, Italy and Greece), EIOPA has not found evidence of a material impact for the (re)insurance sector. Moreover, the current unavailability of wildfire models for Europe would make very difficult the calibration of parameters for this peril in the SF. Thus, EIOPA will not include wildfire risk in the SF in the current recalibration exercise. However, development in the models and exposure of the (re)insurance sector to this risk across Europe will be closely followed in the coming years. The possible introduction in the SF will be

					reassessed in the next recalibration exercise. Please note that considerations of possible double counting of the wildfire risk have been added in the report.

Q45: How should wildfire be included in the SF?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
44	AMICE	Public	Yes	See our answer to Q44.	See resolution to Q44
45	Gesamtverband der Deutschen Versicherungswirtschaft e. V. (GDV)	Public	Yes	We agree with EIOPA's analysis that the risk wildfire is difficult to be included among the existing perils. Wildfire can only occur locally in forest areas or in the immediate vicinity (not nationwide), it should therefore be considered as a sepa-rate peril. Adequate modelling is only possible with regard to the geocoordinates of individual buildings (which is difficult for integration in the standard formula). We identified diverging contradictory aspects on the question whether wildfire should be integrated in the natural catastrophe or in the man-made catastrophe sub-module. On the one hand, in vendor models wildfire is usually considered and modelled as a natural catastrophe. In addition, natural factors such as heat, drought, forest and soil conditions play an important role. On the other hand, most wildfires can be traced back to a person and is thus man-made. Against this back-ground, we encourage EIOPA to work on two concrete alternative proposals for the integration of wildfire in the respective sub-module and consult and decide eventually on the basis of these two alternative proposals.	Noted. EIOPA understands the observation that for an adequate modelling of the wildfire risk the use of CRESTA zones may present limitations. If this peril is introduced in the SF careful attention needs to be paid to this aspect. However, it should be considered that, in order to be applied by all undertakings, complexity should be limited in the SF. Regarding the issue of possible double counting with the Man-made catastrophe risk sub-module, EIOPA agrees that it should be thoroughly analysed. Please note that this consideration has been added in the report.
46	Actuarial Association of Europe	Public	Yes	We support the inclusion of wildfire as a new stand-alone peril in the Standard Formula. We agree with EIOPA's analysis that the risk wildfire is difficult to be included among the existing perils. Wildfire can only occur locally in forest areas or in the immediate vicinity (not nationwide), it should therefore be considered as a separate peril. Adequate modelling is only possible with regard to the geocoordinates of individual buildings (which is difficult for	Noted. EIOPA understands the observation that for an adequate modelling of the wildfire risk the use of CRESTA zones may present limitations. When and if this peril will be introduced in the SF careful attention will be paid to this aspect. However, it should be

				integration in the standard formula). Using cresta zones seems unsuitable for modelling purposes. We would like to note that SF already includes a scenario for man-made risks, and the causes of wildfire risk could be typically related to human activities. Therefore, it should be ensured that adding a stand-alone wildfire scenario would not result in double counting with the existing man-made scenario. Moreover, the inclusion of a new stand-alone risk in the standard formula should be consistent with the 99.5% probability for the total Solvency Capital Requirement.	considered that, in order to be applied by all undertakings, complexity should be limited in the SF. Regarding the issue of possible double counting with the Man-made catastrophe risk sub-module, EIOPA agrees that it should be thoroughly analysed. Please note that this consideration has been added in the report.

Q46: Are there key factors driving the wildfire risk not mentioned so far?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
47	AMICE	Public	Yes	See our answer to Q44.	See resolution to Q44
48	Actuarial Association of Europe	Public	Yes	Wildfire exposure includes both property and tree exposure. Should the management of wildfire in the SF be considered separately regarding the insurance of properties, which may already be addressed through the existing man-made scenario, versus the insurance of forests?	Noted. Please note that this consideration has been added in the report.

Q47: Do you have any comments on the impact of coastal flood for the European insurance sector?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
49	AMICE	Public	Yes	See our answer to Q44.	See resolution to Q44
50	Insurance Europe	Public	Yes	See Q.44 Further assessment of how coastal floods could be integrated into the standard formula architecture is also merited.	Noted. The reasons for monitoring emerging perils is that, due to climate change, the frequency and intensity of certain perils might change. Hence, perils that might not have been relevant for the (re)insurance sector in the past might become more relevant in the near future. This would need to be captured in the SF. However, prerequisite for the inclusion in SF

					is that the new perils/countries need to have a material impact to the insurance sector. Coastal flood risk is especially relevant for countries with large coastlines or many islands (France, Denmark, Netherlands and Italy, but also Germany). In addition, coastal flood risk is extremely dependant on adaptation measures. Moreover, the current unavailability of coastal flood models for Europe would make very difficult the calibration of parameters for this peril in the SF. Thus, EIOPA will not include coastal flood risk in the SF in the current recalibration exercise. However, development in the models will be closely followed in the coming years. The possible introduction in the SF will be reassessed in the next recalibration exercise.
51	Gesamtverband der Deutschen Versicherungswirtschaft e. V. (GDV)	Public	Yes	The impact of coastal flood for Germany is currently low and well below the mate-riality threshold for the standard formula. Therefore, there is currently no reason to include the risk of coastal flood in the standard formula for Germany. Given that there is risk of coastal flood rises above the materiality threshold, and it is included in the standard formula, there must be no double counting of the risk.	Noted. The reasons for monitoring emerging perils is that, due to climate change, the frequency and intensity of certain perils might change. Hence, perils that might not have been relevant for the (re)insurance sector in the past might become more relevant in the near future. This would need to be captured in the SF. However, prerequisite for the inclusion in SF is that the new perils/countries need to have a material impact to the insurance sector.

					Coastal flood risk is especially relevant for countries with large coastlines or many islands (France, Denmark, Netherlands and Italy, but also Germany). In addition, coastal flood risk is extremely dependant on adaptation measures. Moreover, the current unavailability of coastal flood models for Europe would make very difficult the calibration of parameters for this peril in the SF. Thus, EIOPA will not include coastal flood risk in the SF in the current recalibration exercise. However, development in the models will be closely followed in the coming years. The possible introduction in the SF will be reassessed in the next recalibration exercise.
52	Actuarial Association of Europe	Public	Yes	Based on the evidence provided, coastal flooding will have an increasingly material impact for exposed countries over the long-term time horizon. Although, dependent on the individual countries' unique exposure (exposure varies by country) this may result in increased risk across the European insurance sector. It would therefore seem sensible to consider coastal flooding for exposed member states within the standard formula. - Denmark-specific comment: Floods in Denmark primarily originate from coastal floods, when large volumes of water are pushed into the Baltic Sea in connection with storms combined with Easterly winds or from the North Sea in combination with winds from a more westerly direction. There are few larger lakes and rivers in Denmark, and it is therefore very rare to see flooding events caused by lakes or rivers. - Belgium-specific comment: The development of defenses, such as dykes, along the sea front and in some exposed estuaries is of high importance. Various catastrophe models recently had to review their assumptions regarding the role of these defenses, as their previous risk assessments were generally too high compared to the recent reinforcements of the	Noted. The reasons for monitoring emerging perils is that, due to climate change, the frequency and intensity of certain perils might change. Hence, perils that might not have been relevant for the (re)insurance sector in the past might become more relevant in the near future. This would need to be captured in the SF. However, prerequisite for the inclusion in SF is that the new perils/countries need to have a material impact to the insurance sector. Coastal flood risk is especially relevant for countries with large coastlines or many islands (France, Denmark, Netherlands and Italy,

				dykes. Consideration of public adaptation measures for coastal flooding is important for an accurate risk assessment. - Germany-specific comment: The impact of coastal flood for Germany is currently low and well below the materiality threshold for the standard formula. Therefore, there is currently no reason to include the risk of coastal flood in the standard formula for Germany. Given that there is risk of coastal flood rises above the materiality threshold, and it is included in the standard formula, there must be no double counting of the risk.	but also Germany). In addition, coastal flood risk is extremely dependant on adaptation measures. Moreover, the current unavailability of coastal flood models for Europe would make very difficult the calibration of parameters for this peril in the SF. Thus, EIOPA will not include coastal flood risk in the SF in the current recalibration exercise. However, development in the models will be closely followed in the coming years. The possible introduction in the SF will be reassessed in the next recalibration exercise.

Q48: How should coastal flood be included in the SF?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
53	AMICE	Public	Yes	See our answer to Q44. Having this peril integrated in Windstorm would be challenging in some jurisdictions particularly for the French market as it is very difficult to isolate the corresponding data. It would be preferable to include it in Flood instead.	Noted. Due to the responses received a decision will currently not be taken on how best to potentially include coastal flood in the SF. Instead, the issue will be further discussed and assessed in future work.
54	Insurance Europe	Public	Yes	Yes See Q.44 and Q.47	Noted. Due to the responses received a decision will currently not be taken on how best to potentially include coastal flood in the SF. Instead, the issue will be further discussed and assessed in future work.
55	Gesamtverband der Deutschen Versicherungswirtschaft e. V. (GDV)	Public	Yes	Coastal flood should be considered as a separate peril. It is different from wind-storm as coastal flood can only occur locally (on coasts) and not every storm on the coasts results in a damaging coastal flood. In general,	Noted. Due to the responses received a decision will currently not be taken on how best to potentially include coastal flood in

				storm surge also occurs independently of river flooding or flooding caused by heavy rainfall, thus should not be part of the peril flood. Another reason for considering coastal flood separately is that not all insurance companies have coastal flood in their portfolio.	the SF. Instead, the issue will be further discussed and assessed in future work.
56	Actuarial Association of Europe	Public	Yes	To reduce additional complexity, a similar approach to the inclusion of coastal flood within the windstorm risk as per the approach taken to the UK would appear appropriate. An additional review of this may be required based on the models available for non-UK coastal flood risk within existing windstorm models. It is noted that, in practice, most coastal floods in Europe are linked to windstorms rather than tides (or tsunami / sea-level rises) and so consideration should be given whether an alternative approach for coastal floods would be to consider them together with windstorms. Generally, it seems that the flood parameters in the standard formula are adequate and include both floods from fresh water and floods due to sea water. Given proper parameterization (e.g. correlations), all the options described to include coastal flood in the Standard Formula could potentially work. Country specific comments: - Belgium-specific comment: It is noted that flood is subject to the Nat Cat law with a specific limit to the insurer's exposure. To maintain the ability to calculate the impact of the public intervention in case of a large loss, the parameters for coastal flooding should be kept separate from wind parameters in this approach. If coastal flood is added to the standard formula, we would recommend reviewing the wind parameters for the coastal zones to make sure that there is no conservative approach in the wind parameters in these zones which could generate double counting between the wind and coastal flooding parameters. Some experts are indeed considering that the wind parameters for the Belgium coastal zones are high if we only consider the wind component. - Norway/Sweden specific comment: In our opinion we do not believe that Sweden and Norway have the same problems with flooding in relation to the Baltic Sea which occurs in Denmark due to the narrow passage in the Oresund and in the Belts around the island of Funen.	Noted. Due to the responses received a decision will currently not be taken on how best to potentially include coastal flood in the SF. Instead, the issue will be further discussed and assessed in future work.

				- Germany specific comment: Based on our Germany-specific experience, coastal flood could be considered as a separate peril. We consider that this peril is different from windstorm as coastal flood can only occur locally (on coasts) and not every storm on the coasts results in a damaging coastal flood. In general, storm surge also occurs independently of river flooding or flooding caused by heavy rainfall, thus should not be part of the peril flood. Another reason for considering coastal flood separately is that not all insurance companies have coastal flood in their portfolio.	

Q49: Are there key factors driving the coastal flood risk not mentioned so far?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
57	AMICE	Public	Yes	See our answer to Q44.	See resolution to Q44
58	Insurance Europe	Public	Yes	1. Any potential improvements to risk adaptation measures, in particular where these measures may be temporary in nature, may not be reflected within the risk models. This could result in overstatement of the impacts. 2. Consideration should be given to the risk of dyke breaches. The likelihood of breaches can vary significantly depending on the type of dyke. For instance, very large dykes are likely to have a low breach probability, whereas narrower dykes may exhibit greater sensitivity to high tides. This variability in breach probability based on dyke type could be factored into risk assessments.	Noted. Due to the responses received a decision will currently not be taken on how best to potentially include coastal flood in the SF. Instead, the issue will be further discussed and assessed in future work.

Q50: Do you have any comments on the impact of drought for the European insurance sector?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
59	AMICE	Public	Yes	Moreover, as the claim values are based on this peril on agriculture's end-of-the-year yield, it could be difficult to isolate it from other sources of low yield, therefore advocating for options where it is not in a totally specific submodule.	Noted.
60	Insurance Europe	Public	Yes	See Q.44 Further assessment of how drought could be integrated into the standard formula architecture is also merited	Noted.

61	Gesamtverband der Deutschen Versicherungswirtschaft e. V. (GDV)	Public	Yes	The impact of drought for Germany is currently low and well below the materiality threshold for the standard formula. Therefore, there is currently no reason to in-clude the peril drought in the standard formula. If the peril drought becomes material and it is included in the standard formula, there must be no double counting of the risk.	The drought peril is not intended to be included in the standard formula at this stage, only a monitoring of the risk is proposed in the report. Drought is considered at European level but national experience would certainly need to be taken into account as for the other perils if further developments occur.
62	Actuarial Association of Europe	Public	Yes	Drought may also impact risks other than agricultural drought. It would be beneficial for the paper to explore whether drought has been assessed as a material risk for the insurance sector overall. Drought significantly impacts the soil's water absorption capacity and the frequency of flash floods. It would be valuable to consider the secondary effects of drought on flash floods and other related perils. Drought can also impact the levels of subsidence especially for clay type soil which have tendencies to shrink and crack in prolonged dry conditions. It is noted that Agricultural insurance is not a significant product in some countries, making agricultural drought as a separate peril potentially disproportionate to the risk in these regions. However, in countries where agricultural insurance is provided exclusively by specialized insurers, there is a clear need to cover this type of risk. It is also important to recognize the correlation between drought and flood, as the risk of flooding increases after a drought due to the reduced water absorption capacity of dried-out soils. Therefore, it would be valuable to investigate whether drought risk could be integrated into the flood factor for agricultural specialty insurers. Drought is also not affecting all countries in the same way and appears to be more severe for Central and Southern Europe. Country-specific comments: - In the Nordics, over recent years we have seen increased exposure to rain and rising groundwater levels rather than drought. Increased precipitation can lead to water seeping into basements creating	Drought can reinforce subsidence and some flood events; however the impact of drought and its changes should already be taken into account in the models used to estimate flood (includind flash floods) and subsidence losses, which then feed standard formula parameters. The second effect of drought is already taken into account in the existing nat cat parameters at least for flood and subsidence and for the lines of business concerned. Integrating a drought risk into the national flood factor only for agricultural specialty insurers need to be thought as it could create discrepancies in the regulation among insurers if not properly defined. Drought is considered at European level in the report but national experience would certainly need to be taken into account if further developments occur.

				problems with foundations. In relation to agriculture, water in the fields can also lead to reduced harvest yields. - The impact of drought for Germany is currently low and well below the materiality threshold for the standard formula. Therefore, there is currently no reason to include the peril drought in the standard formula. If the peril drought becomes material and it is included in the standard formula, there must be no double counting of the risk.	

Q51: How should agricultural drought be included in the SF?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
63	AMICE	Public	Yes	See our answer to Q44.	See resolution Q44.
64	Insurance Europe	Public	Yes	Agricultural drought should be considered as a separate peril as part of the Natural Catastrophe module and not as part of the premium and reserve risk module. It should be integrated in a separate Nat Cat submodule only considering crop insurance business with respect to agricultural drought (without mixing with the other perils). Another reason for considering agricultural drought separately is that not all insur-ance companies have it in their portfolio.	Noted.
65	Actuarial Association of Europe	Public	Yes	We believe that the parameters in the standard formula are adequate at present. In the event of accelerated climate change caused by tripping events we could potentially see large changes to exposure in the future. This comment is also relevant for other perils. In such cases, where there is a significant increase in risk and heightened exposures, a new stand-alone module could become more appropriate (e.g., agricultural drought could be considered in a new stand-alone multi-peril crop insurance module: option iv. page 68). Additionally, some of our members have expressed concerns with regards to the association of agricultural drought with the subsidence module, noting that the exposure and the dynamics leading to the two perils could be different. Further consideration may be warranted by EIOPA in this respect. Germany-specific comments:	The drought peril is not intended to be included in the standard formula at this stage, only a monitoring of the risk is proposed in the report. Further discussions would be held if further developments occur.

				Notwithstanding the comments in the first paragraph, are colleagues from the German Actuarial Association have noted the following comment, specific to their German market perspective: - Agricultural drought could be considered as a separate peril as part of the Natural Catastrophe module and not as part of the premium and reserve risk module. It may be integrated in a separate Nat Cat submodule only considering crop insurance business with respect to agricultural drought (without mixing with the other perils). - Another reason for considering agricultural drought separately is that not all insurance companies have it in their portfolio.	

Q52: Are there key factors driving the agricultural drought risk not mentioned so far?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
66	AMICE	Public	Yes	See our answer to Q44.	See resolution Q44.

Q53: Do you have any other comments?

Number	Name Stakeholder	Public/Confidential	Response	Comment	Proposed Resolution
67	Finanstilsynet	Public	Yes	Recalibration of windstorm risk for Norway Finanstilsynet has noticed that Windstorm risk for Norway has not been reassessed in 2023/2024 exercise. Finanstilsynet has recently conducted an analysis of windstorm risk in Norway based on publicly available data from Norwegian Natural Catastrophe Pool, which indicate that the standard formula may overestimate the windstorm risk for Norway. The sum insured, which is used as an exposure measure in the standard formula, depends heavily on property prices, which have increased by more than 200 percent in the last ten years in Norway. The sum insured of a property also includes a plot, which is rarely included in compensations from insurance undertakings in case of damage due to natural catastrophes, as properties are in most cases being repaired or rebuild on the same plot. Expenses insurance undertaking	This information was unfortunately not provided in the initial call for evidence EIOPA had run to define the scope of the 2023/2024 reassessment exercise. EIOPA has nevertheless checked with the Cat Risk Expert Network and corresponding cat models. The current factor seems indeed to be on the conservative side, but one model was even providing a larger factor. EIOPA will therefore not consider the recalibration for this

				carry, due to repairing or rebuilding properties, are mostly correlated to construction costs, which didn't increase as much in recent years as property prices. The initial calibration of the standard formula for natural catastrophe risks was based on very few external models and was supplemented with expert judgements. Today, there are several providers of windstorm models for Norway, and the models are updated with more recent data than those used for the initial calibration. Therefore, we would suggest reassessing calibration of standard formula for windstorm risk for Norway in the next recalibration exercise to ensure appropriate measure of risk in standard formula. According to Eiopa's "Discussion paper on Methodology on potential inclusion of climate change in the Nat Cat standard formula" from November 2020, there is no consensus on how climate change impacts windstorm risk. Furthermore, it is mentioned in the same discussion paper that there is no evidence of the current impact or impact in the short run of climate changes to windstorm risk. Hence, we see no evidence for the need of additional conservatism in the standard formula above calibration levels based on historical data and current windstorm models.	exercise. However, EIOPA has a mandate to perform this reassessment regularly and will consider this for the next exercise.
68	Assuralia	Public	Yes	It is referred to Insurance Europe's response, to which Belgian insurance companies also contributed.	Noted.
69	AMICE	Public	Yes	See our answer to Q44. We understand that EIOPA´s new emerging perils approach suggests that new perils, which might not have been relevant for the (re)insurance sector in the past, might become more relevant as a result of climate change and therefore should be added to the perils currently covered by the Solvency II standard formula. The insurance community is still in the early stages of gathering data and modelling knowledge on these perils; It is relevant to monitor and study them, but it is still too premature to include them with relevance in the standard formula given the scarcity of data available. The fact that certain evidence of climate change impacts in certain perils and countries is found should not automatically lead to the conclusion that they should be included in standard formula. As stated in previous EIOPA´s papers on the matter, not only should a hazard increase but also its associated risk in order to be considered in the natural catastrophe risk sub-module of Solvency II. Furthermore, where the insurance penetration is low and is expected to remain low, a country/peril combination should be considered not material enough to be considered in the standard formula.	The reasons for monitoring emerging perils is that, due to climate change, the frequency and intensity of certain perils might change. Hence, perils that might not have been relevant for the (re)insurance sector in the past might become more relevant in the near future. This would need to be captured in the SF. However, prerequisite for the inclusion in SF is that the new perils/countries need to have a material impact to the insurance sector. So far, although the growing economic impact of wildfire risk has been recognized especially in Mediterranean countries (Spain,

				Until the next recalibration phase, (re) insurers will, by working on the pricing of those perils, be able to produce enough proper data for EIOPA to build accurate models to calibrate such risks in the standard formula. Until then and given that these risks are less prevalent than the ones already integrated in the standard formula, the quantitative impact on the solvency position will not be material. It should always be ensured that in order to be included in the standard formula, the new perils/countries have a material impact for the insurance sector. Otherwise, this would add a lot of complexity without providing any significant relevant information. Moreover. some of those perils are already considered in other catastrophe risk submodules of the standard formula. Therefore, it is very complicated to define the scope and to avoid double counting. We therefore ask EIOPA to reconsider the introduction of new emerging perils. For specialized undertakings exposed to such perils we refer to the ORSA and the related supervisory review processes. Finally, the publicly funded climate related adaptation measures as well as the individual measures promoted by insurers and which limit the impact of climate change should be taken into account in future recalibrations of the natural catastrophe risk sub-module. These measures are fundamental to manage the new emerging risks and they should be recognised as a risk reduction measure in the Solvency II standard formula.	Portugal, France, Italy and Greece), EIOPA has not found evidence of a material impact for the (re)insurance sector. Moreover, the current unavailability of wildfire models for Europe would make very difficult the calibration of parameters for this peril in the SF. Thus, EIOPA will not include wildfire , coastal flood and agricultural drought risks in the SF in the current recalibration exercise. However, development in the models and exposure of the (re)insurance sector to this risk across Europe will be closely followed in the coming years. The possible introduction in the SF will be reassessed in the next recalibration exercise.
70	Insurance and Reinsurance Stakeholder Group	Public	Yes	The IRSG's response to the consultation on 2023/2024 (re)assessment of the Nat Cat standard formula Overall, we welcome EIOPA's work on the recalibration of the Nat Cat parameters. As noted in our advice in response to the EIOPA consultation on methodology on the potential inclusion of climate change in the Nat Cat, the IRSG supports the regular assessment and appropriate recalibration of the Nat Cat parameters via a standardised, transparent process. This aligns with Art. 304a of the SII draft compromise text. The IRSG also highlighted the need to only make changes where material to avoid introducing volatility in the parameters and capital requirements. In practice, however, EIOPA proposes recalibrations for Nat Cat risks that are only slightly changing and do not appear to be material. Further explanation of why EIOPA considers these to be material would be helpful. With regards to the "new" perils envisaged by EIOPA, it seems relevant to study them and pursue investigations on definitions and data gathering. Yet, it seems we are at too earlier stages to ascertain any robust calibration. We would also caution against inserting separated new submodules to handle	All the new factors propose a change above 15%. These new factors are corresposnidng to material changes. The reasons for monitoring emerging perils is that, due to climate change, the frequency and intensity of certain perils might change. Hence, perils that might not have been relevant for the (re)insurance sector in the past might become more relevant in the near future. This would need to be captured in the SF. However, prerequisite for the inclusion in SF is that the new perils/countries need to have a material impact to the insurance sector.

				these perils as it would bring a risk of either double-counting or exaggerating the global charge with the introduction of additional isolated layers of prudence and the difficulty of assessing correlations between the different perils. Finally, some of these new perils are very difficult to isolate from broader peril categories. Where necessary, recalibration of a particular parameter should be done via a standardised, transparent, comprehensible, and clearly documented process. While the additional narrative and data included in the consultation paper is a step forward, additional transparency and standardisation of the explanations would be welcome, for example regarding the models or data used. This will enable improved insurer understanding of the parameters and put insurers in a better position to assess the SF's potential gaps and appropriateness. Also, in case of expert judgement, appropriate documentation should be made, particularly where recommendations deviate from the input data, or where there is limited model availability, e.g. for Scandinavian flood risks. The reassessment should furthermore consider the impact of adaptation measures to climate events. Such measures are increasingly being implemented and this will likely continue. At the very least, it should be clear from the documentation where these have and have not been considered in the models. Outcome of climate changes, especially economic one, requires multidimensional research. EIOPA and local supervisors should enhance such research by academics. There is a need to rethink necessity of building insurance data bases in all Member States and providing access to raw insurance data for scientists.	So far, although the growing economic impact of wildfire risk has been recognized especially in Mediterranean countries (Spain, Portugal, France, Italy and Greece), EIOPA has not found evidence of a material impact for the (re)insurance sector. Moreover, the current unavailability of wildfire models for Europe would make very difficult the calibration of parameters for this peril in the SF. Thus, EIOPA will not include wildfire , coastal flood and agricultural drought risks in the SF in the current recalibration exercise. However, development in the models and exposure of the (re)insurance sector to this risk across Europe will be closely followed in the coming years. The possible introduction in the SF will be reassessed in the next recalibration exercise. As mentioned, EIOPA has done significant work to provide more information for this exercise on the Nat Cat reassessment as done in previous exercises (i.e., 2017/2018 review of the Nat Cat parameters). EIOPA aims to continue improving the availability of information and understanding related to the reassessment. A possibility envisaged is also to include open-source models as benchmark to provide more open results in the future.

					Many stakeholders also raised the importance to consider how adaptation measures are influencing Nat Cat risks as EU member states and individuals have implemented measures to adapt to these changes, and this trend is likely to continue. These are fundamental to managing the new emerging risks and, at the same time, and because it is technically sound, a way should be found to recognise the associated risk reduction in the SF. EIOPA has planned to initiate further work on the assessment of the prudential treatment under Solvency II of adaptation measures in Nat Cat insurance.
71	Insurance Europe	Public	Yes	Insurance Europe acknowledges EIOPA's efforts to reassess the natural catastrophe (NatCat) risk charges. It also supports the recalibration of the NatCat parameters to reflect the latest developments in climate science, recent NatCat events, and NatCat modelling capabilities. IE is committed to collaborating with EIOPA on the Standard Formula (SF) NatCat reassessment. In March 2023, IE submitted the industry's response to EIOPA's call for evidence to reassess the NatCat SF Solvency Capital Requirements parameters. The industry suggests that the following comments and observations can further enhance the accuracy, consistency, and transparency of the NatCat reassessment process: •To ensure better alignment with the SII Review, EIOPA should avoid introducing non-significant recalibrations to the current factors. Article 304a of the SII review states that EIOPA should recalibrate risk parameters in cases of significant discrepancy between current calibration and actual risk. However, EIOPA assesses some of the recalibrations as "slightly increasing".	All the new factors propose a change above 15%. These new factors are corresposnidng to material changes. EIOPA has done significant work to provide more information for this exercise on the Nat Cat reassessment as done in previous exercises (i.e., 2017/2018 review of the Nat Cat parameters). EIOPA aims to continue improving the availability of information and understanding related to the reassessment. A possibility envisaged is also to include open-source models as benchmark to provide more open results in the future. For hail, a reassessment was needed as many parameters were still coming from expert judgement

				•To improve transparency, EIOPA could provide additional details justifying the rationale behind the proposed recalibration when there has not been significant events since the last calibration or the model suggests an increase. The lack of detailed justification makes it challenging to understand the reasoning behind the proposed changes. For the recalibration of some parameters (e.g. BE and NL Hail), while EIOPA states that no significant events have occurred since the last calibration to justify these changes, the model itself suggests the need for an increase. •EIOPA could improve transparency on the modelling inputs used in the calibrations, along with providing more information regarding the role of expert judgment. For example, for some parameters an average value is presented, while for others a range is provided. EIOPA would improve transparency by disclosing the model's names, data used, and ideally the results even if there were anonymised. At the minimum, if the full results can't be disclosed, identifying the models used particularly when proposing changes, would enhance stakeholder comprehension of the outputs and EIOPA's proposals. •In some countries, such as Germany, it has been observed that the calibration of certain NatCat risks in the SF are conservative compared to the underlying risk. This is revealed by many users of the SF, who additionally use their own NatCat models to assess their risks. •It should be further noted that the implicit modelling of contract limits and deductibles leads to an overestimation of the risk, particularly for those companies/policies with large deductibles and low contract limits. IE would welcome further transparency on the assumptions used to model contract limits and deductibles to allow insurers a better view of the consistency of their individual risk profile with the standard formula assumptions. •To improve the accuracy of the NatCat parameter recalibration process, EIOPA should consider how adaptation measures are influencing climate change. EU member states and individuals have implemented measures to adapt to these changes, and this trend is likely to continue. These are fundamental to managing the new emerging risks and, at the same time, and because it is technically sound, a way should be found to recognise the associated risk reduction in the SF.	when in the meantime new models areavailable. So even if no events occurred, EIOPA wanted to have amodelled view instead of an expert judgement which was sometimes relying on a 2010 view. The models used in the reassessmenr are coming from the members of the external epert network on catastrophe risks. The lists of members is mentioned in the annex. In the case of Germany, the national supervisor has done significant analyses on the nat cat risks (also considering the recent events). All this work has been used to justify the results obtained in this reassessment. In agreement with Insurance Europe, EIOPA would like to improve the transparency on the assumption taken for the limits and deductibles. EIOPA will therefore work on creating its own database to be used as input for the next nat cat reassessment exercise which could also be made available to the public. This of course will depend on the progress made for this project. Recognizing the importance of adaptation measures, EIOPA has planned to initiate further work on the assessment of the prudential treatment under Solvency II of adaptation measures in Nat Cat insurance. The % have been added to the executive summary table.

				•The tables in the Executive Summary, from page 7, should have the factors written with "%" as in Annex VII in the Solvency II regulation. GERMANY-EARTHQUAKE The earthquake risk factor Q of 0,10 % for the region of Germany seems to be rather high, as the results of different models show. Though it is conceivable that earthquakes with high claims occur in Germany, however, these have only a very low probability of occurrence. This should be reassessed. POLAND-FLOOD EIOPA's 2023/2024 (re)assessment exercise of the NatCat SF did not consider the (re)assessment/(re)calibration for Polish floods. Poland's investments in flood protection and climate change adaptation have significantly reduced flood risk, mean that the risk of flooding is now at a much lower level than when the Polish flood calibration was set at 0.16%. •In Poland hydrological droughts are becoming more frequent due to diminishing snow cover and higher temperatures. •The Institute of Environmental Protection predicts temperature increases under two climate scenarios (RCP4.5 and RCP8.5). RCP4.5 foresees a 1.3°C rise by 2100, while RCP8.5 predicts a stronger increase. Annual precipitation may slightly increase but with cyclical variations. •Historical data show severe droughts between 1975-1990 and increased frequency of flash droughts from 2005-2020. •The Oder River Basin Flood Protection Project aims to mitigate flood risks through infrastructure improvements, including the Racibórz reservoir and Wrocław Water Junction upgrades.	While defining the scope for the 2023/2024 exercise, Germany Earthquake was not defined to be a priority and the modellers did not have further evidence. EIOPA wil however consider this again in the next exercise. Please provide further evidence when this one will take place. EIOPA has contacted two suppliers of catastrophe models with whom it cooperates and both have confirmed that the flood parameter for Poland is not overestimated. Both modelers have shown that this parameter is slightly higher than the current 0.16% in the standard formula. Therefore, there is no basis for changing the flood parameter for Poland. The next nat cat reassessment study will provide the opportunity to fully reanalyze the parameters. At the moment, there is no basis for changing it.
72	GDV	Public	Yes	If a recalibration takes place, the recalibration process should in any case be car-ried out transparently. EIOPA should disclose methods and data used. If it is not possible to disclose the results, it would be helpful to name the models used and the range of the (anonymized) results. Particularly, if changes are proposed nam-ing the models would be reasonable. Besides that, the earthquake risk factor Q of 0,10 % for the region Germany seems to be rather high as the results of different models show. Though it is con-ceivable that earthquakes with high claims occur in Germany, however, these have only a very low probability of occurrence. Further, it is noted that the reflection of the overall nat cat risk in the standard for-mula is conservative compared to the underlying risk. This is revealed by	EIOPA has done significant work to provide more information for this exercise on the Nat Cat reassessment as done in previous exercises (i.e., 2017/2018 review of the Nat Cat parameters). EIOPA aims to continue improving the availability of information and understanding related to the reassessment. A possibility envisaged is also to include open-source models as benchmark to

				many users of the standard formula, who additionally use own NatCat models to assess their risks. Further, EIOPA is encouraged to evaluate taking into account the risk mitigating effect of contract limits and deductibles. Currently only sum insureds are defined as exposure basis and contract limits and deductibles do not have an in-fluence. Therefore, also for this reason estimates are for many companies on the conservative side.	provide more open results in the future. While defining the scope for the 2023/2024 exercise, Germany Earthquake was not defined to be a priority and the modellers did not have further evidence. EIOPA wil however consider this again in the next exercise. Please provide further evidence when this one will take place. The 200-year RPL (Gross Loss) was modelled using commercial catastrophe models and corresponding Industry Exposure Databases which consider best-estimates for market deductibles and loss limits on country and area levels. EIOPA wants in the future to improve the consistency and transparency by developing the collection and dissemination of uniform and comprehensive catastrophe risk data such as exposure data which would be used in the next Nat Cat reassessment process.
73	Actuarial Association of Europe	Public	Yes	While the Delphi method has been applied, it presents challenges in assessing the suitability of the calibrated country factors and their corresponding weights. It would be helpful to disclose the tests conducted on the results of the various models, along with the expert judgements used. To ensure transparency and traceability in capital-related measurements, additional details on these aspects would be valuable. Furthermore, providing a comparison of the standard formula factors with market-standard models such as AIR and RMS would enhance understanding and confidence in the methodology.	EIOPA has done significant work to provide more information for this exercise on the Nat Cat reassessment as done in previous exercises (i.e., 2017/2018 review of the Nat Cat parameters). EIOPA aims to continue improving the availability of information and understanding related to the reassessment. A possibility

				Presenting a risk ranking of different countries by perils could enhance the evaluation of the outcomes. Additionally, leveraging the EIOPA dashboard on insurance protection gaps might aid in representing and evaluating natural catastrophe distributions more clearly. This approach could provide a more comprehensive understanding for stakeholders. We note that the reassessment of perils and country factors is a process that was established before 2016. We are curious whether EIOPA could make provide a comprehensive database based the data used for calculating these factors. We would be willing to support EIOPA in developing such a NatCat database for future reassessments. The impact assessment by EIOPA provides results at the member state level. Although outcomes for individual entities are determined, they are not displayed in the document. We were wondering if EIOPA could consider providing the impact ranges for individual entities. Given that it has been over 10 years since certain natural catastrophes were last calibrated or recalibrated, it might be helpful to understand the process for monitoring the suitability of these calibrations. The underlying methodological concepts for the Standard Formula, such as the 200-year return period, seem to assume a statistically stationary risk regime. This approach may not fully account for emerging risks like climate change, which introduce non-stationary trends for weather catastrophes. Given that the NatCat recalibration is scheduled every five years, incorporating a forward-looking risk analysis could ensure that the parameters remain prudent not only currently but also in the future, considering the additional risks posed by unavoidable climate change. Additionally, any insights on whether long-term views of natural catastrophe trends have been incorporated would be appreciated. Calibration of SII must be consistent with the basic requirement of solvency II: The SCR shall correspond to the VaR of own funds with a confidence level of 99.5% over a one-year period. A higher prudency is not required and should not be requested. A forward-looking assessment considering possible changes in the future shall explicitly be part of undertakings' ORSA. Possible trends need to be consistent with trends in all other climate-related scenarios to ensure holistically a coherent treatment. More specific comments:	envisaged is also to include open-source models as benchmark to provide more open results in the future. However, the standard formula parameters are a view from a prudential perspective and will always involve also expert judgement from national supervisors. The dashboard on the insurance protection gap looks at the total economic risk of a peril for the risk estimation. The standard formula will only consider the material part for the insurance sector. But indeed, the risk from the dashboard is also an input for such exercise. The range on individual enetities was directly discussed with relevant supervisors but can not be disclosed. Indeed, the idea is to have a more forward-looking view to have parameters which are valid for the time they are used by the sector to calculate the capital requirement. However, we also have many discussion on the uncertainties and also on how to get the climate change trends on relative short time horizon (at least from a climatological perspective). The standard formula provides a simplified view and a correction was introduced for firms to account for their own limits. Comment on freeze has been noted and could be reflected in future exercise.

				- The discussion paper's reliance on net risk analyses might overlook changes in risk due to limited exposure or adaptation measures. This approach may not be sufficiently prudent or forward-looking. It could be more effective to trigger NatCat recalibrations based on changes in the gross risk, allowing individual companies to then apply the formula based on their own net risk. This method might provide a more comprehensive understanding of the risks involved. - Ireland specific comment: In the last 20 years in Ireland, there have been some material freeze events which are currently not reflected in the Standard Formula. Consideration should be given to the potential impact of Freeze risks within the Standard Formula. - The number of countries affected by hail seems to be significantly lower than those impacted by windstorms or floods. We were wondering if this disparity has been addressed by the experts from the various NCAs? - Governments are actively investing in mitigating effects of natural catastrophes (most notably flood), building barriers; not allowing any development in flood risk areas etc. We were wondering if any of these actions were taken into consideration in the calibration. - It seems that the consideration of the overall natural catastrophe risk within the standard formula could be seen as rather conservative compared to the underlying risk itself, as shown by users of the standard formula who use their own NatCat models to assess risks. - We would encourage consideration of risk mitigating effects of contract limits and deductibles in EIOPAs analysis. Currently only sum insureds are defined as exposure basis and contract limits and deductibles do not have an influence. Therefore, also for this reason estimates are for many companies on the conservative side.	Hail has been recalibrated as most countries still had factors from 2010. The review of the hail module will continue as more evidence is available. Adaptation will have a specific focus in the next work EIOPA will start end of this year. Agreed, the standard formula provides a prudential perspective otherwise models used by the insurance sector are used as input to derive the view. The 200-year RPL (Gross Loss) was modelled using commercial catastrophe models and corresponding Industry Exposure Databases which consider best-estimates for market deductibles and loss limits on country and area levels. EIOPA wants in the future to improve the consistency and transparency by developing the collection and dissemination of uniform and comprehensive catastrophe risk data such as exposure data which would be used in the next Nat Cat reassessment process.
74	Polish Chamber of Insurance (PIU)	Public	Yes	Polish Chamber of Insurance (PIU) is grateful for the opportunity to comment on the public consultation on the reassessment of Nat-Cat risks in the standard formula. Upon EIOPA review, it is evident that the updated natural catastrophe parameters currently do not include flood risk in Poland. This omission is significant, as flood risk is a critical factor for the Polish insurance market, and its inclusion is essential for accurately assessing and managing Nat-CAT risks. Therefore in the PIU opinion such a reassessment is necessary.	EIOPA has contacted two suppliers of catastrophe models with whom it cooperates and both have confirmed that the flood parameter for Poland is not overestimated. Both modelers have shown that this parameter is slightly higher than the

				The PIU request is supported by the analysis of two catastrophe models: Impact Forecasting (IF) flood model v3.0 by AON and G-Cat Flood by GUY Carpenter, both commonly used in Poland's insurance and reinsurance market. For the AON flood model, the weighted average for the overall market is 0.072%, the simple average is 0.067%, and the median is 0.068%. The average flood risk ratio under the Guy Carpenter model is 0.075%. Both models estimate a once-in-two-hundred-year loss for the aggregated market sum insured. Both models are stochastic and updated in the last twelve months, modeling damage to the entire river network in Poland. The flood events are based on ISOK and JBA flood maps and consider current flood protection information, including the impact of the Racibórz dammed reservoir. Both fluvial and pluvial flooding are modeled. The PIU request is supported by data on climate change trends and hydrological conditions in Poland, particularly the developing hydrological drought. Increasing annual temperatures and variable precipitation patterns will lead to more frequent violent local flooding caused by torrential rains and reduced snow cover, diminishing the likelihood of snowmelt floods and large summer floods. Moreover, the PIU's postulate is supported by the Institute of Environmental Protection, State Research Institute, "Summary report - Changes in temperature and precipitation in Poland until 2100," analyzed temperature and precipitation changes under scenarios RCP4.5 and RCP8.5. The RCP4.5 scenario assumes a CO2 concentration increase to 540 ppm by 2100, with a radiative forcing of 4.5 W/m². The RCP8.5 scenario assumes a CO2 concentration increase to 940 ppm by 2100, with a radiative forcing of 8.5 W/m². Both scenarios show an increasing trend in mean annual air temperature. Under the RCP4.5 scenario, the mean annual temperature will increase by 1.3°C in Poland by 2035. The RCP8.5 scenario predicts a much stronger upward trend. Temperature increases are projected for all seasons under both RCP scenarios. The most significant changes are expected in winter (December, January, February) and summer (June, July, August). Annual precipitation under the RCP4.5 scenario is not expected to change significantly by 2065, with a slight upward trend and cyclical variability over several years.	current 0.16% in the standard formula. Therefore, there is no basis for changing the flood parameter for Poland. The next nat cat reassessment study will provide the opportunity to fully reanalyze the parameters. At the moment, there is no basis for changing it.

				In addition, historical data from the Institute of Meteorology and Water Management (IMGW) in the report "Climate of mounting losses" indicate extreme meteorological droughts from 1975-1990, covering over 70% of Poland's territory at times. Severe droughts occurred in 1982-1983, affecting over 50% of the country. Recent decades (2005-2020) show a shift to more localized flash droughts and prolonged droughts, disrupting water resource recovery and exacerbating hydrological droughts. For future years, low and extremely low river levels are likely, especially during summer rainfall deficiencies. Furthermore, the PIU request is supported by the following flood protection projects: 1. Flood Protection of the Oder River Basin (ODPO):This project aims to improve flood protection from Racibórz to Wrocław, including a dry flood control reservoir in Racibórz and modernization of Wrocław Water Junction facilities. The Racibórz reservoir, commissioned in 2020, can take in around 185 million cubic meters of water, reducing flood waves. Upgrading the Wrocław Water Junction enables safe passage of flood waves with flow rates up to 3,100 m^3/s. 2. Flood Protection of the Oder River Basin (OPDO) Project (launched in 2015):This project aims to improve flood protection for the Oder and Upper Vistula river basins, including: *Middle and Lower Oder Basin: Strengthening flood protection for cities along the Oder River, including levees, bank protection, riverbed deepening, and infrastructure for icebreakers. *Kłodzko Valley: Protecting Kłodzko and surrounding areas with dry flood control reservoirs, levees, and riverbed redevelopment. *Upper Vistula Basin: Protecting the Kraków agglomeration and industrial areas with flood management infrastructure. The already implemented and follow-up investment projects concerning flood safety and climate change mean that the risk of flooding is now at a much lower level than a dozen years ago, when an index of 0.16 was set for the Polish market.	