

Public Consultation on "Application guidance on running climate change materiality assessment and using climate change scenarios in the ORSA"

Fields marked with * are mandatory.



Responding to the paper

EIOPA welcomes comments on the Consultation paper on "Application guidance on running climate change materiality assessment and using climate change scenarios in the ORSA".

Comments are most helpful if they:

- respond to the question stated, where applicable;
- contain a clear rationale; and
- describe any alternatives EIOPA should consider.

Please send your comments to EIOPA using the EU Survey tool **by Thursday, 10 February 2022 23:59 CET** by responding to the questions below.

Contributions not provided using the EU Survey tool or submitted after the deadline will not be processed.

Publication of responses

Your responses will be published on the EIOPA website unless: you request to treat them confidential, or they are unlawful, or they would infringe the rights of any third-party. Please, indicate clearly and prominently in your submission any part you do not wish to be publicly disclosed. EIOPA may also publish a summary of the survey input received on its website.

Please note that EIOPA is subject to Regulation (EC) No 1049/2001 regarding public access to documents [1] and EIOPA's rules on public access to documents [2].

* Declaration by the contributor

between 1 and 2 choices

- I consent to publication of all information in my contribution in whole
- /in part – as indicated in my responses
- including to the publication of my name/the name of my organisation, and I declare that nothing within my response is unlawful or would infringe the rights of any third party in a manner that would prevent the publication.

Data protection

Please note that personal contact details (such as names of individuals, email addresses and phone numbers) will not be published.

They will only be used to request clarifications if necessary on the information supplied. EIOPA, as a European Authority, will process any personal data in line with Regulation (EU) 2018/1725 [3]. More information on how personal data are treated can be found in the privacy statement at the end of this survey.

[1] Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (OJ L 145, 31.5.2001, p. 43).

[2] Decision (EIOPA-MB-11/051) of the Management Board concerning public access to documents - [Public Access to Documents](#)

[3] Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45 /2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39)

About the respondent

* Please indicate the desired disclosure level of the responses you are submitting.

- Public
- Confidential

* Stakeholder name

Actuarial Association of Europe

* Type of Stakeholder

- Association
- Industry
- Ministry
- Supervisor
- EU Organisation
- Other

* Contact person (name and surname)

Monique Schuilenburg

* Contact person email address

moniques@actuary.eu

* Contact person phone number

003222016021

Questions to Stakeholders

* 1. Do you agree that the first two chapters provide a clear picture on the inclusion of climate risk scenarios in the ORSA to a high-level reader?

- Yes
 No

Please add an explanation

The first two chapters have not yet the right level of either technical details or general framework. They do not address the needs of the AMSB nor of the experts, e.g. what objectives to reach when performing the scenario analysis, what is a valuable outcome, which decisions should be supported, etc. It remains a challenge to give a guidance without being too prescriptive in an ORSA context.

As we expect this initiative to be a first step before progressive convergence over the years, EIOPA should state more explicitly what is expected on the ORSA process documentation, in particular with respect to updates to climate scenarios for the ORSA report, emphasizing that the scenarios could change rapidly. Undertaking's risk appetite should be adapted with respect to climate risk. This risk appetite is also important to manage the industry wide protection gap and will be a valuable piece of information for EIOPA or regulators to aggregate. So encouraging consideration in ORSA would be useful.

A recommendation could be made to indicate specific effects of the entity's action on societal impacts, and to Project the impacts on society and industry if entity's actions became more widespread in the industry. What would be the effect on the society and industry if the entity's actions were more widely used?

The issue of the time horizons to be taken into consideration is essential and would require clarification.

There are two scales of horizon to manage. The classic horizon of the strategic plan (3 to 10 years depending on the type of activity and the entities) and the long-term climate horizon.

In our opinion, the ORSA must retain its current framework, fed by a long-term framework (10-30 years) on climate change that informs the decisions to be taken over the strategic plan horizon (3 to 10 years).

Transition risks might materialize quicker, but physical risks may typically have longer horizons. The long-term framework and the link with climate scenarios should be provided by EIOPA guidelines. Long-term risks should be addressed by adequate management actions. The effect on company reputation could develop quickly, perhaps immediately in certain situations.

The scenario section does not yet provide a holistic and comprehensive view of the transmission channels depending on the temperature scenario increase. The steps of the transition scenario on page 18 and the role of SSPs are unclear. Any consistency issue between projection horizons and underlying calibration is not clearly addressed.

Baseline scenario: The definition of "no-change" or baseline scenario should not be interpreted as no change in temperature, rather it should mean no change in societal behaviour.

Clearly specify transition and physical scenarios on page 18 (with the freedom to pick one of each) and the mapping between IEA and NGFS scenarios. An image of the NGFS scenarios could better reflect insurance risks and improve the scenario analysis. Recommending one specific scenario for each, and offer alternatives, will create a basis to receive comparable ORSA reports though each company still performs their own risk assessment.

As EIOPA's paper is meant as an application guidance to SME, we assume that the paper shall give a complete picture of sufficient and necessary task to do. E.g. approaches should be provided about how to connect climate scenario analysis, risk appetite, business strategy and vision could be important.

Further aspects:

The paper risks to foster insurance gaps as the only management action mentioned is risk exclusion.

However, it is important to mention the broad possibilities of management actions beyond risk exclusion: prevention, risk mitigation, more granular pricing (all these support adaption to climate change, cf. impact underwriting), reinsurance etc.

The concept of financial losses in the third step of scenario analysis is not well defined (see page 18 – figure 6).

The possibility of multi-year assessments (see paragraph 3.24 of the April 2021 document: "not necessarily every year") could be more clearly explained.

Due to technical limitations in the survey we had to leave out of consideration valuable details and information which we would be happy to discuss if clarification is needed.

* 2. Do the examples in “Chapter 3 – Materiality assessment” address the main transition and physical risks to which undertakings may be exposed?

- Yes
 No

Please add an explanation

The document provides initial elements for defining a methodology for assessing materiality and building scenarios. Further clarifications should be made on the methodological level.

In order to assess materiality, it is important to define precise metrics for analysis. Implicitly and through the examples in chapter 3, EIOPA refers to either:

- qualitative criteria for which the definition and choice of criteria appear unclear
- quantitative criteria, such as risk exposure, for which it is not clear whether they are quantities approaching the SCR and the economic capital, or whether they are retained on another basis.

Defining metrics to assess the impact of climate change is important. Such metrics can help to identify and avoid excessive divergence in practices.

Appropriate benchmarks could help to guide operators in the choice of classifying a risk or an activity as materially affected at a given horizon.

The examples given through the dummy companies do not allow to explain how the materiality of risks with uncertain consequences should be assessed. EIOPA should provide elements to explain how operators should behave in the face of these uncertainties.

The elements provided in Chapter 3 concerning materiality in assets are not sufficiently clear. Could EIOPA provide in these illustrations how to take into account:

- specific constraints related to asset-liability matching, diversification or profitability constraints,
- the normative constraints that will apply (SFDR, taxonomy, ...),

Finally, on the asset side, reinsurance coverage, which is also a significant source of vulnerability (cost, exclusions, etc.) is not mentioned.

While the chapter broadly appears to cover the main transition and physical risks, we are missing some relevant risks in the examples that might be important to be reflected for some insurers.

- Transition risks: It might be helpful to illustrate these risks better also for other assets like government bonds, real estate, and mortgages in the life insurer example
- Despite materiality some relevant physical risks like wildfires or heatwaves are not discussed in detail.
- Longer-term considerations would also require some discussion of future sales and renewals based on the chosen risk appetite and development under the chosen scenario.
- The dummy non-life company has limited motor exposure and this line of business is not treated in detail. Several disrupting trends are converging, which require insurers to explore the associated transition pathways in their climate projections.

We are missing a more explicit example of how the simplified balance sheet is calculated and reflects impacts by both transition and climate risks (e.g. sales and renewals for non-life). The paper is missing a discussion around the future evolution of the simplified static balance sheet projection.

Not covered in this document are the effective assessment of financial impacts under the scenarios (own funds, solvency position), interactions with the other components of the solvency framework, and possible simplified approaches for long-term projections. The presentation of the risks in the form of a case study might not be suitable. A presentation depicting the connection between the SII risk-categories and the climate risks (transition and physical risk) could be considered. As all SII risk-categories can be affected, a thorough consideration is necessary to identify the possible impact. Due to a lack of data, simple,

deterministic scenario analysis may be the most appropriate approach, here, with sufficient caveats. Illustrating the impact of risk mitigation measures, such as countercyclical measures, by an example would be beneficial.

We are missing the consideration of second round climate risk exposure caused by holding securities of financial institutions. The necessity of taking this indirect exposure into account is indeed highlighted in the context of CPRS materiality assessment, however, it remains unclear how this exposure can be assessed in practice.

The analysis does not display the widening funnel of doubt with respect to time. Proportionality and communication will be essential in limiting spurious accuracy. As the ORSA is written for an informed audience, this should be feasible. Predicting the future with a lack of suitable data will also require high levels of expert judgement. When it comes to climate exposures, data from 20 years ago is of limited relevance, and even data from 10 years ago is now less relevant.

* 3. Do you consider the scenario analyses proposed in “Chapter 3 – Climate change scenarios” easy to apply for small and mid-sized insurers?

- Yes
 No

Please add an explanation

Integrating climate risks into the risk management process can be challenging for undertakings. Provision of alternatives or approximate approaches are recommendable especially for SMEs. An overview of key references used (tools/methods, input data, scenarios used), a brief description and their intended purpose would add clarity and focus to the opinion. Example best-practice choices of temperature paths and timeframes could be provided that insurers could simply follow.

The 2 requested long-term climate change scenarios are not specified in terms of trajectory (speed/shape /regional distribution/target...). The implications for physical and transition risks in the shorter term are also not framed. The scenarios do not include the scenario whereby transitional events occur but do not have the desired impact, i.e. we incur the costs of transitioning to a low carbon economy but the level of global warming is not limited to 1.5°C or 2°C.

We recommend to specify in at least two long term climate change scenarios (one =1.5 °C and one >2°C), the types of possible transition settings and associated physical risks, allowing to evaluate for the entity the impacts at 10 years (CT), 30 years (MT) and 80 years (LT). It should be stated clearer that too short time frames could hide the effects of long-term climate effects. In 5 or 10 years' time natural variability might dominate risks from climate change. Individual years should not be used to assess the impact of climate change. The climate of 2030 should be represented by taking the average of 2025-2035, not just the single year 2030.

A long-term reference framework would allow organizations to integrate climate risk management action easier into the ORSA. This will result in an iterative process over years. The importance of a holistic approach and consistency across the ORSA elements (horizon, narrative, materiality assessment, scenarios, and financial impacts) should be stressed.

The effective assessment of financial impacts under the scenarios, interactions with the other components of the solvency framework, possible simplified approaches for long term projections should be covered. If the tools mentioned in chapter 3 allow capturing the effect of variations in financial risks, they do not seem to be relevant for capturing variations in economic risks (rate curve, inflation...)

We agree with EIOPA's critical view on closed-source commercial cat models and the PRA stress test. Alternative stress tests are available (or planned) which are both more up-to-date and more appropriate. For

instance, the “Climate Biennial Exploratory Scenarios” (CBES) (2021) of the BofE, or this year’s “Climate Pilot Exercise “of the ECB (2022). Based on the NFGS scenarios these stress tests can also provide a comprehensive view on macroeconomic and asset-side risks. We recommend the use of stress tests from Europe considering all possible realizations of material risks.

Limited transparency of open-source tools like PACTA and NGFS Climate Impact Explorer, can substantially reduce the benefit of an end-to-end solution. An adequate familiarity with the tool is indispensable to achieve a full understanding of climate related risks.

Some online tools like PACTA require the upload of confidential data to external providers. The data security aspects should be addressed in the paper.

Scenario analysis: The limitations of using climate model data should be mentioned in a high-level summary. The four alternatives presented for physical risk on non-life business vary considerably in usability and risk quantification. The inherent complexity and the practicability have to be considered, especially by SMEs. E. g. cat models are less practicable for SMEs, recurring (license) costs might incur.

Most hazards will not be well represented by climate models due to their resolution. The example provided showed the geo-localised distribution for Portugal. Whilst firms should have access to the data by country and possibly region/province, they may not have data beyond that level of granularity. Climate models are not able to model the climate at the spatial resolutions needed for many hazards, e.g. flash flooding is dominated by sub-daily rainfall which is not modelled by climate models (except for a minority of models built in the UK to specifically look at UK flooding).

The transition asset risk focusses on technology transition risk, while the assessment of policy transition risk is largely disregarded. Pragmatic approaches for GHG-emission based revaluation frameworks exist. An approach was explicitly mentioned in EIOPA’s „2nd Discussion Paper on Stress Testing“. Guidance on how undertakings might approach this aspect could be beneficial.

Is there any relevant aspect not covered by the previous questions, with a particular focus on alternative methodologies / approaches?

This paper is intended to provide guidelines rather than set out mandatory practice. But guidelines from EIOPA often tend to translate to best practices expected by national supervisors. It needs to be stated more explicitly that this paper provides not a standardised approach to managing emerging risks and needs to be updated regularly to reflect new scientific insights, experiences and the further development of climate change and the transition to the targeted Paris agreement.

Any guidance or guidelines introduces the risk of anchoring when it comes to looking at scenarios. For example, it suggests two scenarios and implicitly ignores a hybrid ineffective transition scenario (e.g. the EU does a severe transition but others don't or even feedback loops carry us into severe physical risks too).

The issues of materiality and scenarios are linked: a risk may be material in some scenarios at a certain horizon and not in another scenario. This is an important point and implies that the methodological approach presented in Figure 1 on page 10 should be reworked as follows:

1. Define climate change scenario (type of transition / physical risks)
2. Define the business context,
3. Research impacts of climate change on the business
4. Define metrics on which the effects of climate change is assessed,
5. Assess relevance to the business

In this respect, the matrices in Figure 5 should be re-examined by climate scenario and the work in Chapter 3 should include an additional dimension per scenario.

Proportionality: It is more appropriate to encourage SMEs to identify, assess and understand these risks in a qualitative manner, or using more approximate quantitative methods rather than attempt to scientifically model. Numeric examples appear to have spurious accuracy in them. They do not allow for an expanding funnel of doubt. There is a danger that actuaries and insurers might fall into the trap of ‘over-modelling’ very

scientific sets of climate outcomes.

The horizon definition should be assessed depending on the business model but also on the purpose of the analysis. Macro and second order effects are expected to materialize within a longer timeframe and should not be disregarded. We also stress the importance of “societal” aspects including a.o. the pension business. An undertaking may be very different strategically in the longer-term future and so the impacts on it are more difficult to understand. A qualitative approach is likely appropriate.

A clear view of reference databases, their use in materiality assessment/scenarios and the possible link between the approaches would be useful to get a comprehensive understanding of the components and their interaction. References should be flexible enough to follow the most recent developments in case of non-yearly update.

We note the approach by peril on physical risk and not by event. The reality appears to be evolving where one event combines several perils (e.g. flood with storm). This would require another approach with dependencies across perils to calibrate the expected future claims.

A detailed examination of assets may be a beneficial exercise. However, proportionality should be considered as some companies may struggle to access this level of data. [Some guidance on appropriate stresses in this case might be beneficial for SMEs]

Management Actions could be further discussed. In some cases allowing for certain management responses in the scenarios will enhance a company's understanding of the risk and help inform their business planning over time.

P35 - we agree with the recommendation for “more granular analysis of the climate-related assets.”

However, we recommend that the opinion should specifically state that exiting climate-related sectors with generally high carbon-intensity investments is not the only solution. Finding investments in that sector that are less intensive through “investor engagement”, or have a good potential to be acceptable over some appropriate time horizon. A granular approach with investor engagement should be highlighted as best practice and recommended for all approaches.

We recommend elaboration of the following issues:

It is not clear how the final materiality assessments shown in the tables at the end of each part (chapter 3) are derived from the analyses discussed in these parts. In particular, the link between these tables and the colored matrices at the end of the chapter are not explained.

Legal risk is insufficiently covered in the document while third party liability coverage can present a major risk for some SMEs.

P53-The only recognition that increased precipitation is different than increased flooding comes here. Further factors should be considered.

P58-Flash flood is linked to annual precipitation, which is not the most relevant metric for describing changes in pluvial flood risk.

P77-There is no consideration of the change in meteorological conditions conducive to air pollution episodes.

Privacy Statement related to Public (online) Consultations

Introduction

1. EIOPA, as a European Authority, is committed to protect individuals with regard to the processing of their personal data in accordance with Regulation (EU) No 2018/1725 (further referred as the Regulation). [Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC]

Controller of the data processing

2. The controller responsible for processing your data is EIOPA's Executive Director.
3. Address and email address of the controller:
Westhafenplatz 1, 60327 Frankfurt am Main, Germany
fausto.parente@eiopa.europa.eu

Contact details of EIOPA's Data Protection Officer

4. Westhafenplatz 1, 60327 Frankfurt am Main, Germany
dpo@eiopa.europa.eu

Purpose of processing your personal data

1. The purpose of processing personal data is to manage public consultations EIOPA launches and facilitate further communication with participating stakeholders (in particular when clarifications are needed on the information supplied).
2. Your data will not be used for any purposes other than the performance of the activities specified above. Otherwise you will be informed accordingly.

Legal basis of the processing and/or contractual or other obligation imposing it

3. EIOPA Regulation, and more precisely Article 10, 15 and 16 thereof.
4. EIOPA's Public Statement on Public Consultations.

Personal data collected

5. The personal data processed might include:
 - Personal details (e.g. name, email address, phone number);
 - Employment details.

Recipients of your personal data

6. The personal data collected are disclosed to designated EIOPA staff members.

Transfer of personal data to a third country or international organisation

7. No personal data will be transferred to a third country or international organization.

Retention period

8. Personal data collected are kept until the finalisation of the project the public consultation relates to.

Profiling

9. No decision is taken in the context of this processing operation solely on the basis of automated means.

Your rights

10. You have the right to access your personal data, receive a copy of them in a structured and machine-readable format or have them directly transmitted to another controller, as well as request their rectification or update in case they are not accurate.
11. You have the right to request the erasure of your personal data, as well as object to or obtain the restriction of their processing.
12. For the protection of your privacy and security, every reasonable step shall be taken to ensure that your identity is verified before granting access, or rectification, or deletion.
13. Should you wish to access/rectify/delete your personal data, or receive a copy of them/have it transmitted to another controller, or object to/restrict their processing, please contact legal@eiopa.europa.eu

14. Any complaint concerning the processing of your personal data can be addressed to EIOPA's Data Protection Officer (DPO@eiopa.europa.eu). Alternatively you can also have at any time recourse to the European Data Protection Supervisor (www.edps.europa.eu).

Contact

[Contact Form](#)