European Insurance and Occupational Pensions Authority

EIOPA-BoS-21/155
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Resolutions table for the Consultation Paper on the draft Opinion on the supervision of the use of climate change scenarios in ORSA					
No	**Stakeholder**	**Question**	**Response**		**Resolution**
1	EIOPA Insurance and Reinsurance Stakeholder Group	Q1	Yes	We welcome EIOPA's paper as a sensible set of directions. The ORSA framework has the required flexibility to allow climate risk to be considered, where material, in a forward-looking manner. This also reflects the Task Force on Climate –Related Financial Disclosures's (TCFD) recommendation to integrate scenario planning into risk management. Such analysis could also serve several objectives: identifying risks, helping to define climate strategy, contribution to the objectives of the Paris Agreement and on transparency towards supervisors and possibly also in some ways to other main stakeholders. It is also important that companies should have the flexibility to conduct the ORSA assessment of climate change related risks in a way that the outcome is most meaningful for them. To achieve a meaningful and proportionate approach, the Opinion should be clear and incontrovertible on the fact that: • the ORSA should remain the company's own analysis. The decision to perform forward looking analysis on climate change risks in the ORSA should remain at the discretion of the specific insurer. It is therefore vital that insurers have the maximum flexibility in applying the most appropriate	Noted. (Partially) agreed on some of the elements listed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. The different objectives of the

				tools and assumptions to their own risk management frameworks, and in line with their own specific business profile. • the link between the ORSA and the strategic planning time horizon is paramount, to ensure a solid governance of the implementation of scenarios. Going beyond the strategic planning time horizon can be promoted but NSAs need to acknowledge that the lower the level of reliability of the projections in longer term scenarios, the fewer the insights and follow up actions which can be taken from such exercises. • the appropriateness of qualitative climate scenario analysis is fully acknowledged and highlight that they are as relevant as quantitative assessment, notably when the level of uncertainty is too important or the availability of date too scarce to derive reliable figures. • this Opinion sets no supervisory expectation in terms of standardisation of scenarios and acknowledge that own risk assessments are more meaningful for firms than prescribed compliance exercise. • The own assessment of climate financial risks is based on each company own tools and processes and, where scenario analysis is used, on their own scenarios. • The ORSA climate scenario analysis has no implication on capital requirements, as per Article 45 (7) of the SII Directive clarifying that the ORSA should not serve to calculate a capital requirement • The good and strong governance of the ORSA implies that no meaningless or too uncertain assessments are included in the ORSA.	disclosure of climate-related information was also clarified. Disagreed on full flexibility for undertakings in taking into account climate change risk in ORSA. Some level of common expectations is justified as few undertakings assess climate change risk scenarios in their ORSA, also in the long term. Solvency II requires undertakings to consider in their ORSA all risks they face in the short and long term and to which they are or could be exposed, i.e. including climate-related risks. Long-term climate change developments beyond the planning horizon may influence current strategic planning, which is also true for non-life undertakings that capture climate change induced trends in physical underwriting risks by annual re-

				• The ORSA is not a tool designed for disclosure and that climate-related disclosure is rightly addressed elsewhere. • The clear recognition in the Opinion that firms can perform such scenario analysis at the level, group or solo, which makes more sense from a risk perspective. • No separate regulatory treatment is needed in the context of the ORSA, as the process should already cover all relevant risks. The prescriptiveness in the ORSA processes should be avoided for the following reasons: o The uncertainties and limitations that exist on forward-looking climate risks analyses. o Materiality of climate risks differs across entities and may change over time. Insurance companies that do not identify significant climate risks in their risk profile should not be forced to use climate scenarios. o Insurers should have the flexibility to rely on the tools they consider the most appropriate to manage those risks. The ORSA is not necessarily the most appropriate tool for managing climate change risk. • As with any risk an insurer is exposed to, the ORSA can already be used as a suitable place for insurers to report on any material exposure and how it is monitored and managed. We would caution against prescriptiveness in the ORSA processes, which are already assessed by the relevant supervisory authorities • For non-life undertakings climate change impacts in the insurance liabilities are de facto captured and evaluated within the risk modelling that is accomplished under the core process to premium and reserves settings by which any evolution of the features of the risk drivers' behaviors	pricing. Uncertainty is inherent in risk management, not a reason not to assess and take into account the risks. Long-term analysis using 'what if' scenarios constitutes a trusted and mainstream tool to do so. Some elements are already clear in the Opinion, e.g. that undertakings may develop their own long-term scenarios and/or build on existing one.

				are automatically included. Capturing the trends out of the most recent experience is a core feature of the process. • A proportionate approach is needed since the materiality of climate risks differs across entities and may change over time. • Insurers should have the flexibility to rely on the tools they consider most appropriate to manage those risks. The ORSA is not necessarily the most appropriate tool to perform this forward-looking management of climate change risk. For instance, some insurers already include disclosures on management of climate risk and forward-looking climate scenarios analysis in a CSR (corporate social responsibility) or climate report. We also believe that the European stress testing exercise might be a useful tool to assess potential vulnerabilities via incorporation of a forward-looking approach based on standardised scenarios in order. At the same time, it is important that climate-related scenarios are appropriately designed.	
2	FERMA (Federation of European Risk Management Associations)	Q1	Yes	A forward-looking risk Enterprise Risk Management (ERM) approach would benefit organisations helping to identify risks, which means work can be done on mitigate and transferring the risks. Forward-looking, especially on climate-related work, is vital to informing business continuity and resilience.	Noted.
3	AMICE	Q1	No	Climate change has an impact on both sides of the (re)insurers' balance sheets. Fostering forward looking management of climate change risk is a valuable approach as long as it acknowledges all the limitations and uncertainties of such an exercise. Climate change is a gradual process and (re)insurers have the possibility to adapt their risk profile through	Noted. (Partially) agreed on some of the elements listed. The Opinion has been amended to enhance flexibility of doing long-term

				adjustments in premiums and the reinsurance coverage alongside adapting their investment profile / asset allocation. For non-life undertakings, climate change impacts in the insurance liabilities are de facto captured and evaluated within the risk modelling that is accomplished under the core process to premium and reserve settings by which any evolution of the features of the risk drivers' behaviors are automatically included. Capturing the trends out of the most recent experience is therefore a core feature of the process. As such the effects of climate change risk are manageable in most jurisdictions. Also (re)insurers should be aware of the potential volatility in climate change related risks over a short-term period of time. This does not exclude that looking back into the past can also provide valuable insights on those climate events which do occur on a more regular basis. For example, comparing the claims pattern from a climate related event that took place several years ago with another one that occurred in a more recent past could provide some valuable information regarding the behavior adaptation following a climate related event, the impact of changes in building codes/regulation, etc. It is also vital that insurers have the maximum flexibility in applying the most appropriate tools and assumptions to their own risk management frameworks, and in line with their own specific business profile. In this respect, the consideration of climate scenarios in the ORSA should not lead to higher capital requirements and meaningless or too uncertain scenarios should not be included as to the governance procedure over the ORSA. A proportionate approach is needed since the materiality of climate change risks differs across entities and may change over time. Insurance companies that do not identify	scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. Disagreed on maximum flexibility for undertakings in taking into account climate change risk in ORSA. Some level of common expectations is justified as few undertakings assess climate change risk scenarios in their ORSA, also in the long term. Solvency II requires undertakings to consider in their ORSA all risks they face in the short and long term and to which they are or could be exposed, i.e. including climate-related risks. Long-term climate change developments beyond the planning horizon may influence current strategic planning, which is also true for non-life undertakings that

				significant climate risks in their risk profile should not be forced to use climate change risk scenarios.	capture climate change induced trends in physical underwriting risks by annual re-pricing. Uncertainty is inherent in risk management, not a reason not to assess and take into account the risks. Long-term analysis using 'what if' scenarios constitutes a trusted and mainstream tool to do so.
4	AIR Worldwide	Q1		AIR agrees that it's prudent to undertake a balanced effort to assess the potential impact of climate change on future risk to ascertain sustainability and growth of the insurance market and individual undertakings. This effort should be balanced with efforts of better understanding other risk drivers and uncertainties.	Noted.
5	Unipol Group S.p.A.	Q1	Yes	Yes, we agree. In particular, as far as physical risks are concerned, current climate models suggest there will be changes in the patterns of atmospheric phenomena. These changes will likely lead to a significant increase in risks in some regions and a potential reduction in others. Given the high uncertainty in these projections, and given the fact that exposures at risk cannot be rolled out immediately (if the company's view of risk is changing), it is crucial to track medium term horizon models outputs in order to steer the underwriting policy and to mitigate concentrations of risks in few regions. It is also vital that insurers have the maximum flexibility in applying the most appropriate tools and assumptions to their own risk	Partially agreed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. Some level of common expectations is justified

				management frameworks, and in line with their own specific business profile. The decision to perform forward looking analysis on climate change risks in the ORSA should remain at the discretion of a specific insurer and be relevant to its own risk situation. The insurer should also decide of the best way to undertake such an exercise, both in terms of time horizon and granularity. In its attempt to assess climate change impacts under the ORSA, an insurer must rely on its own views and understanding. This is all the more necessary considering that there are strong unknowns and uncertainties in the evolution and impacts of climate change which may produce very different outcomes. Additionally, most items are interdependent and some approaches appear artificial.	as few undertakings assess climate change risk scenarios in their ORSA, also in the long term. Solvency II requires undertakings to consider in their ORSA all risks they face in the short and long term and to which they are or could be exposed, i.e. including climate-related risks.
6	PIU - Polish Chamber of Insurance	Q1	Yes	PIU agrees that it is important to foster a forward-looking management of climate change risk by insurance undertakings. However, similarly to other risks managed by each insurer, it is important to present in ORSA those risks which are expected to bring future material impact. Not all the changes related to climate change will affect the insurers' portfolio. PIU recognise the value of simple and bold scenarios related to climate change risks in a long-term scenarios, as they are relevant for understanding of resilience of the current business model in the future. Nevertheless it's worth to highlight that the current strategies do not cover the period of the next 30 years, as the Paris Agreement and European and international objectives are set for 2050. Quantitative scenarios with time horizons longer than 10 years are unreliable and not useful to assess balance sheet impacts, as financial planning is not usually performed over the very long term. Therefore the decision to perform forward looking analyses on climate change risks in the ORSA should remain at the discretion of each insurer, who should take into account geographical specificities related to climate change risk, reflecting the	(Partially) agreed on some of the elements listed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. Disagreed on full

				undertaking's individual risk position, as well as materiality of impact of climate change on this particular insurer. Prescriptiveness in the requirements related to ORSA processes and reports should be avoided. There are uncertainties and limitations related to currently available climate risks analyses. Inclusion of standardised approaches could lead to the misinterpretation of the results of such scenarios. Insurers without significant climate risk exposure should not be forced to use climate scenarios. When an insurer performs climate change scenarios, a shorter time horizon of up to five years is likely more adequate for its ORSA. A qualitative approach would often be a more reasonable and appropriate approach to inform strategic planning and business strategies. Due to uncertainties linked to climate change, long-term climate scenario analyses is not fit for the solvency assessment, nor for the assessment of the overall solvency needs. Stress testing exercises of EIOPA or local supervisors may be a better tool to incorporate a forward-looking approach based on standardised scenarios than the ORSA. EIOPA opinion should promote and encourage the application of proportionality. For insurers with negligible exposure to climate risk it should be allowed to perform a qualitative assessment, with the possibility to use scenario analysis. In application of proportionality principle size should not be a determining factor. The criteria should be rather linked to the business lines or the investment portfolio. It would be beneficial if regulators and supervisors could help to accelerate the development of future methodologies for climate change risk analyses, namely to	discretion for undertakings in taking into account climate change risk in ORSA. Some level of common expectations is justified as few undertakings assess climate change risk scenarios in their ORSA, also in the long term. Solvency II requires undertakings to consider in their ORSA all risks they face in the short and long term and to which they are or could be exposed, i.e. including climate-related risks. Long-term climate change developments beyond the planning horizon may influence current strategic planning. Uncertainty is inherent in risk management, not a reason not to assess and take into account the risks. Long-term analysis using 'what if' scenarios constitutes a trusted and mainstream tool to do

				facilitate the access of insurers to data.	so. Some elements are already clear in the Opinion, e.g. that undertakings may develop their own long-term scenarios and/or build on existing one.
7	EY	Q1	Yes	The forward-looking management of climate change risks is essential. The financial risks from climate change are expected to have a significant impact on financial institutions, who will also need to work with their clients to manage the transition, including, in the limit withdrawing support. Therefore, it is vital that undertakings can identify their exposures to allow them assess, manage, mitigate and disclose those risks. This introduces a range of questions regarding how far into the future the forward-looking view is to be applied and for which stakeholder set that perspective is considered. In particular, a perspective that considers current shareholders, management and policyholders only may focus on current risks and risk attaching within the planning horizon; Furthermore those stakeholders, in particular shareholders are likely to want to consider a longer horizon not least where an enterprise valuation relies on the franchise value delivering dividends profits into the future beyond the current planning horizon; Finally, macro prudential and societal considerations will have an even longer and broader range of considerations. It is perhaps fair to state that currently time horizons are aligned to short cycles as contemplated by the business planning cycle noting that such estimates and projections include long term assets and liabilities in those valuations. Thus there is at a minimum a benefit in extending such planning the horizons consistent with the broader set of	Noted.

				stakeholders and policy initiatives under discussion, using the extended horizons to drive what if scenarios and stresses to allow for consideration of potential consequences and where appropriate policy response and action. We note that EIOPA's draft Opinion considers that further work would be needed to define a consistent set of quantitative parameters that could be used in climate change-related scenarios that undertakings can then adopt as appropriate in their ORSA, risk management and governance practices. It is important for national competent authorities to work with insurance undertakings as they develop their understanding and expertise, apply quantitative parameters and develop additional parameters based on their specificities.	
8	Partnership for Carbon Accounting Financials	Q1	Yes	The European Commission has been justifying its plans and consistent actions for a fair and green economy since entering office in December 2019, because it credibly commits to addressing the problems of harm done to planet and people. The Climate Law should turn the political commitment of climate-neutrality by 2050 into a legal obligation. The European Parliament's declaration of a climate emergency on 28 November 2019 and the European Council conclusions of 12 December 2019 endorsed the objective of achieving a climate-neutral EU by 2050. The European Commission rightly underlines that the ongoing COVID-19 outbreak shows the critical need to strengthen the sustainability and resilience of our societies, the ways in which our economies function, how it protects the vulnerable and creates prosperity for all. The Sustainable Finance Action Plan, and subsequently the Renewed Sustainable Finance Strategy, translate these European ambitions into a political agenda for the EU's legislative framework for the financial sector, and aim at re-orienting capital flows, from harmful towards	Noted.

				sustainable activities, in a stable financial system that serves people and respects the planet they live on. What gets measured gets managed. Since the Paris Climate Agreement was reached in 2015, the largest financial institutions have still invested more than USD $2.7 trillion into the fossil fuel sector with no downward trend and no assessment of the carbon impact of that finance. The scale of the climate challenge is massive and the role of the financial sector in accelerating the transition to a net-zero emissions economy is essential. This status quo will never lead to Paris alignment, highlighting the importance of carbon accounting, especially in the financial sector. The ECB has underlined the consequences of ignoring negative impact on the soundness of financial institutions. The ECB and EBA have published guidance for financial institutions to deal with negative impact and will require that banks no longer ignore those as from 2022. Like any other initiative in the European Commission's sustainable finance strategy, insurance regulation should also be part of a financial system that serves a sustainable economy, and a driver of the collective re-orientation of capital from harmful to sustainable causes. There's no reason for insurance undertakings to stay behind and continue their business as before. As longer-term oriented capital market actors, and as those who cover the losses of unexpected events, they should be the first to understand and minimize the risks they face, both for themselves as for their stakeholders. First, they should commit to reporting their environment, social, governance (ESG, as meant in SFDR) and climate risks (through the TCFD). Second, they should aim to halt negative impact, for the benefit of both their clients and their own soundness. Third, they may want to do so by finding out what matters	

				most for their insurance company and what the most material issues that matter to their stakeholders are, followed by aligning their investments and products along the lines of those material aspects. But they could also benefit from the challenge society faces, seize opportunities, and ensure all investments and lending have positive impact on people and planet.	
9	German Insurance Association	Q1	Yes	A forward-looking management of climate change risk can be important to insurance undertakings depending on their business model and risk profile. Insurers with material climate change risks should (and already have to) consider these in a forward-looking manner where appropriate. Solvency II requires undertakings to consider all risks they face in the short and long term and to which they are or could be exposed in their risk-management system and own risk and solvency assessment (ORSA). However, it should be acknowledged that the required extent, complexity, type (e.g. quantitative vs qualitative) and frequency (e.g. annually vs once every five years) of this assessment may differ from one insurance undertaking to another and within an insurance undertaking from one sub-risk (life, non-life, health, assets etc.) to another as the risk does. These differences should enable an appropriate and proportionate management. For example, it must be possible to handle and assess risks arising from the short-term P&C business differently, particularly in assessing technical provisions. Furthermore, insurers without material climate change risks should not be required to consider climate change risks. In particular, undertakings with non-material climate change risks should not be obliged to apply quantitative climate change scenario analysis. It must suffice to qualitatively estimate the impact and use this estimation for deciding whether an in depths analysis for ORSA is necessary. This further, thorough analysis then includes further qualitative and/or quantitative elements in an	(Partially) agreed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. It has also been clarified that undertakings without any material long-term exposures do not have to conduct the long-term scenario analysis. Long-term climate change developments beyond the planning horizon may influence current strategic

				appropriate way considering the individual risks. There is no standardized approach that fits all. This is what ORSA is about: Each company must deal with its own risks in an appropriate way depending on their nature, scale and complexity. On the one hand, an insurance undertaking with 100% premium volume in natural catastrophe related risks may have to put a lot of effort into managing climate change risk. On the other hand, an undertaking with just a few percent of premium volume in natural catastrophe related risks and short-term contracts may obviously treat climate change risk in a simpler way. Generally, there are short term contracts in P&C. Serious changes in claims payments within this time horizon are caused by extreme weather events, not by climate. Climate risks evolve over time spans of roughly 30 years. Trends caused by climate change can lead to yearly adaptations of premiums. Insurance companies make use of risk mitigation techniques as reinsurance to cover extreme events. Further, considering reserve risk the insurance industry takes into account a trend of higher frequency (storm, hail, …). However, it is not important whether trends stem from the climate change or from different causes.	planning, which is also true for non-life undertakings that capture climate change induced trends in physical underwriting risks by annual re-pricing.
10	Actuarial Association of Europe	Q1	Yes	Climate change is a complex phenomenon that is expected to generate long term trends. Although scientific information on climate change is available since many years, the relevant risks have had limited attention in society until recently. At present, climate change risks are considered as emerging risks in insurance undertakings rather than with specific scenarios. They are allowed for implicitly through scenarios of increases in frequency and severity of future claims. The framework of Solvency II is supportive in this regard –	Agreed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the

				the ORSA gives companies the opportunity to assess their most relevant risks not otherwise captured without being overly prescriptive, which ensures it remains relevant and decision-useful. Giving supervisory guidance will help insurance undertakings to identify and evaluate climate change risks appropriately. Where material, climate risk could be considered explicitly in the enterprise risk management system in a forward-looking manner, in particular to describe the potential consequences of climate change on risk profile, business strategy and investment strategy. Using a forward-looking assessment is a practical way to identify the sensitivity of insurance undertakings to climate change. A forward-looking management of climate change risk should look beyond the planning horizon of the firm, which is usually 5 years or less. Entities need to address climate change risk as a strategically relevant factor and therefore, where material, consider and embed it broadly e.g. across the system of governance. Thereby, short and long term considerations could become an integrated part of the ORSA process. There can be considerable differences on how scenarios / representative concentration pathways (RCP) can affect each undertakings business strategy. The required complexity of the modeling approach should therefore be proportionate to the particular risk exposure. We agree that the approaches to creating and developing climate change scenarios will develop over time as our profession gains experience in this field. This change will foster further change in risk management practices. In this regard, as we anticipate considerable challenges in modelling long term climate risks we suggest that sophisticated quantitative modelling of long term climate risk scenarios should only be a requirement for	possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. It has also been clarified that undertakings without any material long-term exposures do not have to conduct the long-term scenario analysis.

				undertakings with extensive exposure to climate risk or undertakings who could be required to substantially transform the entities business strategy as a consequence of climate change. However, a broad engagement by entities with climate risk, where material, is important. In line with the risk-based and proportional approach, we suggest that the use of simplified methods should also be permissible e.g. where undertakings assess transition and physical events that occur in the future relative to current balance sheets. Hence, we support the proposal that CA's apply a risk-based and proportionate approach to the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA. Therefore it is suggested that the guidance re ORSA scenarios should be appropriately placed in an overall framework encompassing business strategy, disclosures (both public and private regulatory e.g. RSR), internal assessments such as business planning and ORSA scenarios. Given the interdependencies with other risks and inherent uncertainty over the long term a qualitative approach may provide more useful output in this instance than quantitative. The evaluation of long-term quantitative scenarios may not provide meaningful insights, regardless of what scenarios are chosen. This is due to the expanding funnel of doubt over very long time horizons and the level of uncertainty with respect to both the impact and timing of climate change risks. (Re)Insurers' strategic planning should anticipate and respond to long-term trends and reactions from policymakers and society at large. Properly anticipating climate change risks and opportunities requires a long-term perspective, though it may result in short-term	

				responses. In order to understand the possible (short term) impacts of climate change, it is important that entities also consider how society at large is thinking about climate change (across public opinion, governments, politics as well as stakeholders such as investors, regulators, etc.). Society seems to be increasingly interested in considering the longer term impacts of climate change and this means short term actions may be taken based on much longer term considerations.	
11	UAB "SB Draudimas"	Q1	Yes	Nowadays we can see the effects of global warming such as: rising sea levels, shrinking mountain glaciers, accelerating ice melt, storms and shifts in flower and plant blooming times. The obvious effects of climate change make us think about ways to manage this risk.	Noted.
12	JBA Risk Management Limited	Q1	Yes	No amount of reinsurance or ILS capital can stop climate change and that the industry itself needs to adapt to and respond to the threats climate change poses to the business model of risk. Whilst much climate modelling shows a gradual shift from current to higher temperatures accompanied by a gradual shift from current risk to a different level of risk (in any particular peril), it should not be assumed that such change will be gradual. Extremes are sensitive and slight changes to weather patterns may have very large impacts on a relatively short timeframe. Hence it's possible that companies prepare for a situation that's modelled to unfold in (e.g.) 50 years' time, but in fact that situation unfolds very much more rapidly. A forward-looking approach to managing risk may turn out to be less futuristic than envisaged; which only emphasises the need to prepare early. The sensitivity associated with modelling of extremes also means it's important to capture the variability and uncertainty in predicted extremes.	Noted.
13	Moody's ESG Solutions	Q1	Yes	Given that both the transition risks and physical risks arising from climate change are unprecedented and long	Noted.

				term, it is our view that these are therefore unlikely to be adequately captured in historical data driven calibrations of short term (1 year VaR) capital adequacy. As climate change leads to more extreme events, we observe that the past is no longer an accurate representation of what the future may hold. Thus, for physical risks in particular, considering forward-looking risk in underwriting processes is essential to mitigating loss. Life insurers can have long duration liabilities which span decades. General insurers and reinsurers generally have shorter term business models, but the ongoing insurability of climate risks and hazards is fundamental to the industry's future. All insurers are exposed to transition and physical risks in their investment portfolios. The timing and rate of transition are key areas of global systematic risk/uncertainty over the next decade or two. Climate change also presents opportunities for insurers and other institutional investors. The important role of investors in helping mitigate climate change was addressed in the IPCC 2018 Special Report on Global Warming, 2018, Chapter 4, Box 4.8. The IPCC reported investment needs of $2.38 trillion per annum in the energy sector over the next two decades in order to limit warming to 2 degrees C. When investments in transport and infrastructure are included, the necessary annual costs increase closer to $6 trillion per annum. Further, the incremental investment costs (over and above what would be required under a business as usual scenario) of approximately $0.6 trillion per year, are just the tip of the iceberg that investors need to be aware of.	
14	Insurance Europe	Q1	Yes	Insurance Europe agrees that it is important to foster a forward-looking management of climate change risk. It is beneficial that all insurance companies consider the management of climate change risks which are expected to	Noted.(Partially) agreed on some of the elements listed. The Opinion has been amended to enhance

				have a material impact. To this end, the specificities of climate change vis-a-vis other risks should be properly accounted for (see also Q12). European insurers are already at the forefront of climate change in the way they manage risks and pay claims. Climate change analysis could serve several objectives: identifying risks, helping to define climate strategy, contribution to the objectives of the Paris Agreement, transparency, etc. Therefore, the forward-looking management of climate change risk is important not only to strengthen the risk management framework of the insurance undertaking, but also for developing the strategy at executive management level. In fact, climate change may influence strategic decisions in key areas, including product development, perspective asset allocation, business in geographical areas and reputational risk. This considered, the ORSA is the company's own analysis and should remain this way. Therefore, the decision how to perform in practice the forward-looking analysis on climate change risks in the ORSA should remain at the discretion of the specific insurer. It is therefore vital that: Insurers have the maximum flexibility in applying the most appropriate tools and assumptions to their own risk management frameworks, and in line with their own specific business profile. Beyond differences from one insurance undertaking to another, differences also across sub-risks (life, nonlife, health, assets, etc) of an undertaking are accounted for in terms of the required scope, complexity, method (eg quantitative or qualitative) and frequency (eg yearly, every five years, etc) of this forward-assessment assessment. It should be possible to reflect these differences in an appropriate and proportionate management by the insurer. Where changes in claims payments are caused by extreme weather events,	flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. It has also been clarified that undertakings without any material long-term exposures do not have to conduct the long-term scenario analysis. Disagreed on maximum flexibility for undertakings in taking into account climate change risk in ORSA. Some level of common expectations is justified as few undertakings assess climate change risk scenarios in their ORSA, also in the long term. Solvency II requires undertakings to consider in their ORSA all risks they

				such as for many P&C short-term contracts, risk mitigation techniques can be used to deal with the related impact. In addition, insurers can take into account changes in trends caused by climate change via yearly adaptations of premiums. No separate prescriptive regulatory treatment is needed in the context of the ORSA, as the process should already cover all relevant risks. As with any risk an insurer is exposed to, the ORSA can already be used as a suitable place for insurers to report on any material exposure and how it is monitored and managed. Insurance Europe would caution against prescriptiveness in the ORSA processes, which are already assessed by the relevant supervisory authorities, for the following reasons: The uncertainties and limitations that exist on forward-looking climate risks analyses. Materiality of climate risks differ across entities and may change over time. Insurance companies that do not identify significant climate risks in their risk profile should not be forced to use climate scenarios. Insurers should have the flexibility to rely on the tools they consider the most appropriate to manage those risks. The ORSA is not necessarily the most appropriate tool to perform this forward-looking management of climate change risk via standardised prescriptive scenarios.Finally, the insurance sector acknowledges that EIOPA is currently investigating climate change scenarios in the context of the European stress testing exercise. The insurance industry believes that the European stress testing exercise might eventually become better suited to incorporate a forward-looking approach based on standardised scenarios in order to assess potential vulnerabilities and the resilience of the insurance sector (macro-prudential perspective). However, Insurance Europe would like to reiterate that the first few	face in the short and long term and to which they are or could be exposed, i.e. including climate-related risks. Long-term climate change developments beyond the planning horizon may influence current strategic planning, which is also true for non-life undertakings that capture climate change induced trends in physical underwriting risks by annual re-pricing.Some elements are already clear in the Opinion, e.g. that undertakings may develop their own long-term scenarios and/or build on existing one.

				exercises could only be exploratory due to the current limitations in data availability and climate modelling expertise. Climate-related stress testing should also be appropriately designed and calibrated. It should be clear that and results are not fit for solvency assessment (see Insurance Europe response: https://www.insuranceeurope.eu/insurers-see-merit-climate-change-stress-testing-not-eu-wide-liquidity-or-multi-period-stress-tests).	
15	CRO Forum	Q1	Yes	We welcome EIOPA's paper as a sensible set of directions, which considers some of the aspects already approached in its previous Methodological Principles of Stress Testing as well as a realistic timeline for first steps. There is scope for climate change considerations to be included in the ORSA framework and we agree that sustainability risks, and in particular climate change risks, should be considered in a forward-looking manner subject to their materiality, in particular to describe the potential consequences of climate change on our risk profile, business, and investment strategy, as well as how these risks are managed. Firms should, however, be allowed flexibility to tailor how they identify, assess, manage and disclose sustainability and climate-related risks on the basis of forward-looking scenarios based on the materiality of the risks to their business over different time horizons. This also reflects the TCFD's recommendation to integrate scenario planning into risk management. We remind that the purpose of the ORSA is to give companies the opportunity to assess their most relevant risks not otherwise captured, whether they would face them in the short or long term. This is an existing requirement under Art. 45 of the Solvency II. Additionally, the Opinion should clearly mention that as per Article 45 (7) of the SII Directive the own risk and solvency assessment should not serve to calculate a capital	Noted. (Partially) agreed on some of the elements listed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. It has also been clarified that undertakings without any material long-term exposures do not have to conduct the long-term scenario analysis. The Opinion makes

				requirement as per pillar 1. In this light, it is important to remind that the SCR is based on 1-year horizon and the ORSA should consider potential medium-term risks typically over the strategic and business plan horizon, while climate change consequences are already being seen and others (e.g transition risks) may materialise over this horizon other climate change consequences will materialize gradually over a much longer period that is much more difficult to quantify appropriately. It is also important that companies should have the flexibility to conduct the ORSA assessment of climate change related risks in a way that the outcome is most meaningful for them. Key to meaningful scenario analysis in the ORSA are: • The clear recognition in the Opinion that scenario analysis should be limited to climate risks which have been assessed material by the firm in the first place; • The clear recognition in the Opinion of the value of qualitative assessment. Given the interdependencies with other risks and inherent uncertainty over the long term, companies should be allowed to use both qualitative and where possible and reasonable quantitative approaches. The approach taken should cover meaningful time horizons, be based on reliable and reasonable assumptions and deploy methods which are transparent. We think that the evaluation of long-term quantitative scenarios may not necessarily deliver meaningful insight, regardless of whether externally or internally defined scenarios would be chosen, although useful in the short and medium term. Nevertheless, while the long term analysis does not need to be granular or necessarily quantified the full spectrum of time horizons may be relevant to consider. • The clear recognition in the Opinion that firms are allowed to perform such scenario analysis at the level (group or solo) makes more sense from a risk perspective. • The removal in the Opinion of constraints and mandatory	already clear that undertakings may develop their own long-term scenarios and/or build on existing one.

				practices, which would damage the usefulness of the endeavour by transforming it into a compliance/tick-the-box exercise. EIOPA could set for example the high-level narrative for potentially relevant scenarios but not define the actual scenarios to be incorporated into the risk management framework. Rather it should be encouraging insurers to develop their own risk based approach.	
16	Insurance Ireland	Q1	Yes	Insurance Ireland agrees that it is important to foster a forward-looking management of climate change risk as well as other risks. It is beneficial that all companies consider the management of climate change risks which are expected to have a future material impact on the balance sheet of the insurance company. This approach needs to take into account not only the threats that climate change poses to a company, but also needs to take into account the socio-economic structure of the macro-system in which the companies operate, in order to allow insurance companies to perform their activities to their full potential. However, the decision to perform forward looking analysis on climate change risks in the ORSA should remain at the discretion of the specific insurer. The ORSA is the company's own analysis and should remain this way. It is therefore vital that insurers have the maximum flexibility in applying the most appropriate tools and assumptions to their own risk management frameworks, and in line with their own specific business profile. No separate regulatory treatment is needed in the context of the ORSA, as the process should already cover all relevant risks. As with any risk an insurer is exposed to, the ORSA can already be used as a suitable place for insurers to report on any material exposure and how it is monitored and managed. Insurance Ireland would caution against prescriptiveness in the ORSA processes, which are already assessed by the relevant supervisory authorities, for the following reasons:	Noted.(Partially) agreed on some of the elements listed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. It has also been clarified that undertakings without any material long-term exposures do not have to conduct the long-term scenario analysis. Disagreed on full flexibility for undertakings in taking

				• The uncertainties and limitations that exist on forward-looking climate risks analyses. • Materiality of climate risks differs across entities and may change over time. Insurance companies that do not identify significant climate risks in their risk profile should not be forced to use climate scenarios. • Insurers should have the flexibility to rely on the tools they consider the most appropriate to manage those risks. The ORSA is not necessarily the most appropriate tool to perform this forward-looking management of climate change risk. For instance, some insurers already include disclosures on management of climate risks and forward-looking climate scenarios analysis in sustainability reporting or other relevant documentation. It should be noted that insurers are already at the outpost of climate change in the way they are managing risks and paying claims. Climate change analysis could serve several objectives: identifying risks, helping to define climate strategy, contribution to the objectives of the Paris Agreement, transparency, etc. Therefore, the forward-looking management of climate change risk is important not only to strengthen the risk management framework of the insurance undertaking, but also for guiding the strategy at the executive management level. In fact, climate change may influence strategic decisions in key areas, including product development, perspective asset allocation, business in geographical areas and reputational risk.Insurance Ireland acknowledges that EIOPA is currently investigating climate change scenarios in the context of the European stress testing exercise. We believe that the European stress testing exercise may be helpful to incorporate a forward-looking approach, provided its design and the calibration of the scenarios are appropriate.	into account climate change risk in ORSA. Some level of common expectations is justified as few undertakings assess climate change risk scenarios in their ORSA, also in the long term. Solvency II requires undertakings to consider in their ORSA all risks they face in the short and long term and to which they are or could be exposed, i.e. including climate-related risks. Long-term climate change developments beyond the planning horizon may influence current strategic planning. Uncertainty is inherent in risk management, not a reason not to assess and take into account the risks. Long-term analysis using 'what if' scenarios constitutes a trusted and mainstream tool to do so.
17	Swiss Re	Q1	Yes	We welcome EIOPA's paper as a sensible set of directions, which considers some of the aspects already approached in its previous Methodological Principles of Stress Testing as	Noted.(Partially) agreed on some of the elements listed. The

				well as a realistic timeline first steps. Swiss Re sees scope for climate change considerations to be included in the ORSA framework and agrees that sustainability risks, and in particular climate change risks, should be considered in a forward-looking manner subject to their materiality. This is an existing requirement under Art. 44 of the Solvency II. Firms should, however, be allowed flexibility to tailor how they identify, assess, manage and disclose sustainability and climate-related risks on the basis of forward-looking scenarios based on the materiality of the risks to their business over different time horizons. This also reflects the TCFD's recommendation to integrate scenario planning into risk management. However, for the above, the general principles of Solvency II do not need to change. As the purpose of the ORSA is to give companies the opportunity to assess their most relevant risks not otherwise captured, we would refrain from singling out climate change risk in the proposed requirement: climate change risks should be treated like other risks for this purpose. It is also important that companies should have the flexibility to conduct the ORSA assessment of climate change related risks in a way that the outcome is most meaningful for them. For example, we would find long term scenarios useful to assess the strategy. However, given the interdependencies with other risks and inherent uncertainty over the long term, companies should be allowed to use a qualitative approach. On the contrary, we think that the evaluation of long-term quantitative scenarios would not deliver meaningful insight, regardless of whether externally or internally defined scenarios would be chosen. Both currently have major	Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time.Some level of common expectations are justified for climate change risk in particular as few undertakings assess climate change risk scenarios in their ORSA, also in the long term. Solvency II requires undertakings to consider in their ORSA all risks they face in the short and long term and to which they are or could be exposed, i.e. including climate-related risks.

				limitations, i.e. we are missing standards to be adhered by all providers and sufficiently available high quality data.	
25	EIOPA Insurance and Reinsurance Stakeholder Group	Q2	No	The IRSG believes it is difficult to claim that "the costs are outweighed by the benefits of undertakings considering short and long-term climate change risks in their ORSA" as stated by EIOPA in Annex 2. The benefits are very difficult to assess due to the uncertainty of the results in such long term horizon and the necessary simplification of hypothesis to perform such exercise. Plus, the benefits could come from other tools as climate stress testing without adding any constraint in the ORSA. We are of the view that the costs actually outweigh the benefits when approaches in an ORSA are not proportionate to the insurance undertakings' concerned own risk profile on the one hand, and when scenarios extend to terms that go beyond business plans strategic horizons and beyond the remits of what is needed for key management decisions on the other hand. This is all the more a strong concern that the impacts of climate change and climate change itself are not fully grasped. There are also numerous dependencies on future political decisions on a regional but also global level, that reveal the intricacies of potential contradictory approaches and behaviors that may ruin the value of forced far reaching scenarios. We think that the path that climate and society at large is following and will follow is actually unfolding at a pace providing enough inputs that can be captured in good time through insurance undertakings' due risk management processes. At macro prudential level, EIOPA can conduct every 2 or 3 years' stress tests with a dedicated climate risk focus. On costs, it shall also be taken into consideration that all analyses will rely very much on external scenarios and tools and the level of uncertainty will remain quite high. The remarks on benefits are high-level and it does not	Partially agreed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. Long-term climate change developments beyond the planning horizon may influence current strategic planning. Annex 2 was amended to recognise that the costs of developing and implementing the necessary tools for climate change scenario analysis are not directly estimated and are difficult to quantify. The Opinion

				consider that climate scenario analysis is not only picked up within the ORSA, for instance the supervisors from France and UK have brought this up in more wide context e.g. via stress tests and also some insurance groups are using economic scenarios complemented with climate change scenarios. The ORSA is an important part, but only one element of the broader management of risk and opportunities linked to climate change through the risk management framework, business and strategic planning and corporate and social responsibility. The ORSA is one tool and the cost analysis should be considered holistically all the resources deployed beyond across insurance groups' business units and functions. While we agree with the statement that 'climate change is having an impact on the frequency and concentration of extreme weather events and natural disasters', we would note that the impact will differ greatly depending on the geography and perils examined. This is recognised by EIOPA in its Discussion Paper on Methodology on potential inclusion of climate change in the Nat Cat standard formula and should be acknowledged in the context of this opinion as well. EIOPA's concerns on insurability is acknowledged, but it cannot be for any individual company's ORSA to address an issue which is the result of collective action. EIOPA and supervisors can obtain the most meaningful insights on the impact of climate change on the insurance sector out of companies' bespoke ORSA analysis. The differences in practice and approaches are the results of differences in business mix, risk profile and risk appetite. Allowing for different practices and scenarios will yield more accurate results than aiming for standardization in ORSA analysis. The CRO Forum has highlighted the strong limitations of standardised supervisory climate stress test in EIOPA's consultation on the matter. As a general rule, the more standardised the exercise, the less granular it	does not prescribe the design of the potential scenarios acknowledging the purpose of the ORSA and the fact that it needs to remain appropriate for each undertaking's needs. The EIOPA Guidelines on ORSA state that the undertaking should ensure that its assessment of the overall solvency needs is forward-looking, including a medium term or long-term perspective as appropriate, recognising that it represents the undertaking's own assessment of its risk profile and the capital and other means needed to address these risks, given the nature, scale and complexity of the risks inherent in its business.To support insurance companies and decrease the implementation costs, EIOPA is considering

				should be. Granularity and complexity (e.g. non-linear dependencies) is rather for internal climate studies, generally more insightful for firms as a result than standardised scenario analysis and potentially for supervisors as well.	developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business. The ORSA is only one tool and the Opinion is trying to capture the potential use the particular tool can have in relation to climate change risk assessment. A forward-looking and risk-based approach to the ORSA necessitates that undertakings consider a wide range of outcomes. A clear view of the risks and uncertainties to which the undertaking is exposed allows the management body to discuss and decide on actions to mitigate excessive risks and anticipate future management actions

					contingent on certain future events unfolding.
26	FERMA (Federation of European Risk Management Associations)	Q2	No	Any work in this area must be based on the Principle of Proportionality (PoP). Enforcing standardized scenarios upon undertakings must make due consideration of the nature, scale and complexity of those undertakings' activities.	Agreed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. The Opinion does not prescribe the design of the potential scenarios acknowledging the purpose of the ORSA and the fact that it needs to remain appropriate for each undertaking's needs. In line with the Commission's guidelines on non-financial reporting, CAs should expect

					undertakings to subject material climate change risks to at least two long-term climate scenarios, where appropriate.
27	AMICE	Q2	No	Costs outweigh the benefits We are of the view that the costs actually outweigh the benefits when approaches in an ORSA are not proportionate to the insurance undertakings concerned own risk profile on the one hand, and when scenarios extend to terms that go beyond business plans strategic horizons and beyond the remits of what is needed for key management decisions on the other hand. As mentioned under question 1, (re)insurers have the possibility to adapt their risk profile to a changing climate. We think that the path that climate and society at large is following and will follow is actually unfolding at a pace providing enough inputs that can be captured in good time through insurance undertakings' due risk management processes unless the planet is facing a "global cascade of tipping points". Climate change Stress tests Different supervisory authorities have been launching exploratory exercises to assess climate change. It is key that if EIOPA plans to launch a Climate change Stress test exercise in the coming months, it defines the objectives of the exercise in a clear manner alongside its rationale with a full description of threats with causes and effects. One take-away of the French exploratory climate scenarios initiative is that multi decade approaches do not provide insightful results due to the many strong limitations,	Partially agreed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. Long-term climate change developments beyond the planning horizon may influence current strategic planning, which is also true for non-life undertakings that capture climate change

				uncertainties and simplifications unavoidably undertaken in the exercise. As a result, costs not only largely outweigh the benefits but we fail to find any value in such an externally prescribed exercise. Insurers would rather find value in the scenarios they deem appropriate to their exposures and vulnerabilities in proportion to their own risk profile and at the granularity required to be able to grasp an impact. Focus on climate change risks In Annex 2, EIOPA mentions that only a limited number of insurers include climate change risks in their ORSAs. However, EIOPA does not indicate the reference date and the timing of those ORSAs and whether the undertakings have the ability to change the processes to include climate change related risks. In any case the focus that climate change risks should have in the ORSA needs to be further clarified. Time horizon It is also worthwhile noting that climate change scenarios with a big naming as such do not really find their place in the ORSA as the horizons can be qualified as short term with regards to the multi decade pace at which climate evolutions are unfolding. Hence on these short horizons of ORSAs, climate evolutions are actually already trapped and captured in the claims traditional modelling and ORSA´s sensitivity testing together with all the tools and risk management processes insurers are actually continuously using to monitor and assess their risks. As a matter of fact, climate evolutions are already captured under the non-life catastrophe perils and modelled to the best of undertaking's knowledge; these approaches actually comprise much more insight and granular useful information than any high-level view on a planet	induced trends in physical underwriting risks by annual re-pricing. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business. It was clarified that the analysis was performed using the most recent available ORSAs (2019).

				temperature path. ORSA Governance Already through their internal due risk management processes insurers are equipped to capture the risk drivers of their risks and to monitor their evolution that they incorporate in their ORSA scenarios that they constantly adapt. Proportionality An important element not mentioned in EIOPA's Opinion is Proportionality. Climate stresses and attention in the ORSA should be proportional to the actual risk profile of the insurer. A pre-set requirement could introduce a tunnel vision in which other important developments in the risk environment are missed.	
28	AIR Worldwide	Q2		We broadly agree with the points made in Annex 2. Allowing undertakings to build expertise and sophistication over time is a sensible approach. Efforts on climate change risk assessment should be balanced with regards to other risk management efforts. When it comes to physical risk from natural catastrophes, the development of forward-looking climate change risk management sophistication should go hand in hand with a sophistication of present-day nat cat risk management.	Noted.
29	Unipol Group S.p.A.	Q2	Yes	We generally agree that Annex 2 represents a synthetic balanced view of costs and benefits related to the implementation of climate change framework in the system of governance, risk management system and ORSA. We agree with the opinion that fostering knowledge of climate risks and having a more precise view of climate change consequences will compel companies to avoid concentrations in certain regions and to price and manage the negative externalities of Co2 emissions. We do not	Agreed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach

				agree on the fact that being concentrated in a few domestic markets will automatically lead to a reduction of complexity in climate change analysis: building a climate risk framework is as burdersome for large international companies as for domestic ones, even though the analysis of results may be less complex for the latter. Morever being concentrated in a few markets will likely lead to a higher uncertainty with respect of general impact of climate change. Furthermore, in relation to transition risk, additional services and resources have to cover all the sectors and geographies where undertaking portfolios are invested in (not only national markets), therefore costs could be particularly bundersome compared to the dimensions of companies. A proportionality based principle could help in driving smaller undertakings to introduce climate related risk scenarios in there ORSA.	proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time.
30	PIU - Polish Chamber of Insurance	Q2	No	Definitely not. No. While appreciating a good overview EIOPA has provided, it is difficult to positively assess such a huge cost related to the complex and granular analyses that are expected , for the risks that are for many insurers immaterial. Due to complexity of climate change models, a lot of uncertainties related i.a. to the expected time horizon, data availability, data quality, new skills needed, etc it is important that new requirements on models and analyses on climate change risk are introduced gradually, with a focus on simplicity. Only such an approach would allow for balance approach in terms of costs and benefits.	Partially agreed. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time.
31	EY	Q2	Yes	Financial risks from climate change, whether physical or	Noted. The Opinion has

				transitional, will crystalize in existing risk categories such as underwriting risk, and hence should be captured in insurance undertakings' assessments of risk and capital needs; this area still requires significant development, not least a translation of science based impacts into financial and economic considerations and consequences thus the financial services industry and regulators alike are still developing their understanding of how to carry out climate-related scenario analysis. Whilst, intuitively we concur, with EIOPA that the benefits of considering short term (out to end of the decade) climate change risks in the ORSA should outweigh the costs, consideration of whether the ORSA is the right place for medium and longer term considerations is the correct regulatory tool; Ultimately it is essential to listen to the voice of the insurance undertakings as part of this consultation.	been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time.
32	Partnership for Carbon Accounting Financials	Q2	Yes	Yes, we believe it is a balanced view of the costs and benefits. Climate change will happen independently of an undertaking's effort or lack thereof to properly consider its risks. Transition risks and physical risks alike will only become more unpredictable over time. Undertakings which do not invest the resources to properly consider their true risk are at high risk themselves of suffering major impacts. Providing strong risk assessments inspires confidence in investors and stakeholders alike and vice versa. In the long term, this show of resilience will outweigh the immediate costs of building technical capacity.	Noted.
33	German Insurance Association	Q2	No	It is of high importance that costs and benefits are balanced for applying scenario analysis. The effort for a long-term analysis of the impact of climate change is enormous. The results, however, are of low meaning, because missing data leads to low quality models. It should be acknowledged that models for projecting climate change are predominantly academic in character. These models	Noted.

				differ significantly in the outputs of their results. This means there is a significant uncertainty. Additionally, the outputs of these models as changes in temperatures and precipitation cannot be directly transferred to expected claims, underwriting strategies etc. In short, current models are not yet sufficiently developed to be used in such a way intended by EIOPA. Each single analysis of an undertaking reveals different results, such that there is no meaningful basis for decision-making. Additionally, many existing contracts are too short to face the climate change within the contract boundaries. Thus, we do not agree with EIOPA's statement "costs are outweighed by the benefits".	
34	Actuarial Association of Europe	Q2	No	No attempt is made, to size the costs. This would actually not be possible as they would depend on the nature, scale and complexity of climate change risks inherent in a (re)insurance undertaking's business. The cost-benefit perspective provided focused on the supervisor's point of view and does not fully consider costs/benefits from a (re)insurance undertaking's point of view. Costs therefore appear to be underestimated and are limited to the risk department. Any ORSA requires the intensive contributions from other departments (e.g. business, finance) and Actuarial Function. It is important to have a realistic and clear picture of the future climate-risk development in order to ensure short- and long-term prosperity of the undertaking. The heterogeneity of the insurance industry means the costs will impact differently across the industry. Although proportionality is key, it should not be assumed implicitly that there is reduced complexity/risk exposure for smaller players in domestic markets. Scenarios with multiple	Noted. EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several

				negative effects of increased emission scenarios for example increased precipitation, sea level due to melting of ice sheets combined with extreme weather events (e.g. frequency/severity of storms) could have significant impacts on undertakings irrespective of size. Therefore the cost for smaller undertakings is unlikely to be proportional to their size given the effort that will be needed in defining a methodology to assess the impact of the various scenarios. In this regard, it may be beneficial for EIOPA to provide one overarching set of scenarios with high level impacts and the individual companies can look at how these scenarios would impact their firm. Centralising some of the work will increase consistency and reduce the burden on small firms. Currently it is difficult to have relevant data (even for senior climate experts). Resources with relevant expertise and potentially external providers' support are required. The related costs in assessing climate change could be reduced, if NCAs on the European level would support the development of publicly available climate risk models suitable for insurance undertakings. Centralising some of the work could increase consistency and reduce the burden on small firms. This could also help to avoid inconsistencies between entities on what a particular scenario 'label' (e.g. 2 degree increase in global temperatures) actually results in, for example at a macro financial level. Due to the related complexity both supervisors and undertakings should be very aware of the risk of over-implementation with subsequent risk of reduced focus on other drivers of risk. We note that the conclusion in paragraph 2.4 in annex 2 is highly dependent on which approach supervisors and undertakings take in identifying, assessing and monitoring climate risks. We suggest that there is a greater focus on ensuring lower costs when introducing new requirements in this risk area for	external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business. The wording of the conclusion in Annex 2 was made more

				undertakings with low correlation to climate risk – especially for long term scenarios where the undertaking does not have long-term exposure. In the short term we do not believe the increase in costs will be outweighed by the benefits. Concerning benefits: These analyses can help Insurance undertakings in identifying risk exposures that may exceed its risk appetite, and in identifying opportunities of business that are to be developed to cope with climate change. Where an insurer writes long term business and raises capital with long term maturities, consideration of the long term capital position in the ORSA and the impact of climate change on this position, is appropriate. The proposals should lead to a better reflection of the risk profile of the firm in the ORSA. Further, the act of working through scenarios can lead to the identification of opportunities for the business, either as regards putting in place mitigants or identifying opportunities such as expanding a business offering to cover an emerging customer need. Finally, as acknowledged in 3.2 transition risk can arise in the short term so add "and in the short term" to 2.5, i.e. "Transition risk and opportunities may arise suddenly and in the short term." In case of captives, the parent or shareholder is the policyholder. The strategic direction may be to place the captive into run-off (i.e. close it for new business) if climate risks caused the company's business model to become unviable. Overall: We believe that the individual undertaking should decide when and if it is appropriate to include a quantitative analysis in the ORSA, based on the outcome of	balanced.

				qualitative analysis and (where relevant) responses to the industry-wide climate related stress tests. Due to the many uncertainties related to forecasting over a longer time horizon it may be more appropriate to include qualitative analyses which include expected mitigating actions per scenario rather than more detailed quantitative projections.	
35	UAB "SB Draudimas"	Q2	No	The risk management function requires additional resources, the costs of which are outweighed by the benefits to companies. It is difficult to create realistic scenario without past data to predict future. In the natural catastrophe risk module of the standard formula it is already calculated the risk of natural disasters, so the question is whether an additional assessment of this risk is required for life insurance companies.	Noted. EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance

					companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business.
36	JBA Risk Management Limited	Q2	Yes	Paras 2.1 and 2.3 "all risks" – suggest change to "all material risks".	Agreed, amended.
37	Moody's ESG Solutions	Q2	Yes	Given most insurers make extensive use of scenarios in their risk management and capital adequacy frameworks, the proposal to incorporate climate scenarios into ORSA might be a cost effective approach, which can leverage existing systems and expertise. That said, insurers tend to focus on explicit financial and insurance risks, and translating climate science and energy system economics into direct exposures and risks to an insurer's balance	Agreed. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the

				sheet will require new insights. As stated in the Annex, scoring climate risks and hazards will require licencing of new data sets and analytics. In terms of benefits, the Annex could expand and provide more detail with regards to asset management/investments. A key focus for insurers over the next decade and longer will be on the financial implications of a global reallocation of capital in financial markets and on companies' balance sheets towards low carbon technologies and carbon abatement as highlighted also by Krueger, P., Sautner, Z., Starks, L., 2019 `The importance of climate risks for institutional Investors`.	outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business.
38	Insurance Europe	Q2	No	While it is a good overview, it is difficult to claim that "the costs are outweighed by the benefits of undertakings considering short and long-term climate change risks in their ORSA" as stated by EIOPA in Annex 2.	Noted. EIOPA acknowledges the inherent uncertainties in the modelling of

				The industry notes that: -The benefits are very difficult to assess due to the uncertainty of the results with such a long-term horizon and the necessary simplification of hypotheses to perform such exercise. The consequences of climate change are far-reaching and not entirely predictable by an insurance company, especially in terms of the social impact and economic effects. In practice, current models are not yet sufficiently developed to be used as intended by EIOPA. The certainty of scenario results is affected by missing data issues, the academic nature of many models for projecting climate change and significant variation in their assumptions and outcomes. This significant uncertainty comes with the difficulty to directly reflect the outputs of these models (including changes in temperatures and precipitation) in expected claims, underwriting strategies etc. -The costs of such assessment include personnel time, use of external data providers, development of methodologies. The industry highlights that the modelling of climate change can be extremely complex and, as a consequence, expensive (as proven by the fact that the IPCC modelling is still under construction despite it being under development for decades). For this reason, it is important that models and analysis on climate change risk are introduced gradually, with a focus on simplicity to ensure a proper benefit-to-cost balance. -As uncertainties with respect to climate, exposure and vulnerability are larger in the very long run (eg the affordability of insurance premiums can change greatly over time), quantitative scenarios longer than five to 10 years are less useful and may result in higher costs than benefits. The longer the time horizon, the more qualitative	climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. Given that the (re)insurance industry will be impacted by climate change-related physical and transition risks, EIOPA considers it essential to foster a forward-looking management of these risks, also in the long term. This Opinion sets out EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-

				in nature this should be (see Insurance Europe comments on the methodology on climate stress testing). -The single analyses of an undertaking can reveal different results, leaving little ground for meaningful decision-making. -In the analysis of costs and benefits, EIOPA should take into account that: >There might be a number of tools to achieve its goals: eg more frequent reviews of non-life catastrophe risks in the standard formula capital requirements to timely capture the potential effect of increased climate change risks. >Climate change stress tests in the context of the European stress testing exercise is already being considered by EIOPA and could also help create awareness about climate change. The benefits can definitely outweigh the costs if the stresses are not performed too frequently. Despite its limitations and provided its design and calibration are adequate, the industry notes that the outcome of such assessments could be useful also for an insurer's ORSA.	based and proportionate approach. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business. The EIOPA Guidelines on ORSA state that the undertaking should ensure that its assessment of the overall solvency needs is forward-looking, including a medium term or long-term perspective as appropriate, recognising that it represents the undertaking's own

					assessment of its risk profile and the capital and other means needed to address these risks, given the nature, scale and complexity of the risks inherent in its business. High level climate change stress tests are designed for different purposes compared to the ORSA and as such can't be company specific. This is why the Opinion highlights the ORSA as a tool to facilitate this kind of analyses. The need for undertakings to build expertise and capacity, in conjunction with the aforementioned challenges, means that undertakings would implement systematic improvement of the scope and sophistication of quantitative scenario analyses, also taking into account the ongoing developments in the field of climate change risk analysis.

					Therefore, the Opinion recognises that undertakings have to gain experience and build expertise, allowing undertakings to gradually enhance sophistication of the scenario analyses
39	CRO Forum	Q2	No	While we believe that there are benefits of considering climate risks, something that insurance firms are already doing, EIOPA states that the costs of producing such an analysis are outweighed by the benefits without presenting strong evidence to justify this broad statement. Especially on the cost side of the analysis, a lot will depend on the amount of flexibility left for companies to perform their own relevant analysis per their own specifications and developing this further over time. The more prescriptive elements of this consultation paper do not seem to be appropriately accounted for in this respect. The remarks on benefits are high-level and it does not consider that climate scenario analysis is not only picked up within the ORSA. The ORSA is an important part, but only one element of the larger risk management framework, ALM, business/strategic planning and corporate/social responsibility. Assessing the adequacy of solvency or general risk management practices, and by that securing policyholders, is therefore also very much linked to how an entity is taking climate change risk into account in its business processes/decision, e.g. does the investment process include consideration of climate change risks? The consideration of stress scenarios within the context of the ORSA is one tool but not the only source for assessing the adequacy of solvency and the cost analysis	Partially agreed. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. Given that the (re)insurance industry will be impacted by climate change-related

				should be done in this broader view where resources are deployed beyond the risk function. While we agree with the statement that 'climate change is having an impact on the frequency and concentration of extreme weather events and natural disasters', we would note that the impact will differ greatly depending on the geography and perils examined. This is also recognised by EIOPA in its Discussion Paper on Methodology on potential inclusion of climate change in the Nat Cat standard formula. In this light, it is important to note that the nature of the volatility regarding Nat Cat is (still) dominated by the underlying risks, rather than climate change over a one year time horizon. There may though be a role for the ORSA here to assess the impact of climate change over longer time horizons that are consistent with strategic and business planning processes. An important element not mentioned is the proportionality. Climate stresses and attention in the ORSA should be proportional to the actual risk profile of the insurer. A pre-set requirement could introduce tunnel vision in which other important developments in the risk environment are missed. Not every insurer is equally vulnerable for all climate change risks. EIOPA's concerns on insurability are acknowledged, but we note, however, that even where properly examined, that an individual company's ORSA will at best only pick up and address a company's own challenges as it is intended to do, where issues of insurability may only arise as a result of collective action. We strongly believe that EIOPA and supervisors can obtain the most meaningful insights on the impact of climate change on the insurance sector out of companies' bespoke ORSA analysis as the difference in practice and approaches	physical and transition risks, EIOPA considers it essential to foster a forward-looking management of these risks, also in the long term. This Opinion sets out EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach. The Opinion does not prescribe the design of the potential scenarios acknowledging the purpose of the ORSA and the fact that it needs to remain appropriate for each undertaking's needs. The EIOPA Guidelines on ORSA state that the undertaking should ensure that its assessment of the overall solvency needs is forward-looking, including a medium term or long-term

				are the results of difference in business mix, risk profile and risk appetite. Allowing for different practices and scenarios will yield more accurate results than aiming for standardization in ORSA analysis. The CRO Forum has highlighted the strong limitations of standardised supervisory climate stress test in EIOPA's consultation on the matter. As a general rule, the more standardised the exercise, the less granular it should be. Granularity and complexity (e.g. non-linear dependencies) is rather for internal climate studies applied where appropriate, meaningful and in the context of wider resource considerations, generally more insightful for firms as a result than standardised scenario analysis but we expect for supervisors as well.	perspective as appropriate, recognising that it represents the undertaking's own assessment of its risk profile and the capital and other means needed to address these risks, given the nature, scale and complexity of the risks inherent in its business. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business. The ORSA is only one tool and the Opinion is

					trying to capture the potential use the particular tool can have in relation to climate change risk assessment. A forward-looking and risk-based approach to the ORSA necessitates that undertakings consider a wide range of outcomes. A clear view of the risks and uncertainties to which the undertaking is exposed allows the management body to discuss and decide on actions to mitigate excessive risks and anticipate future management actions contingent on certain future events unfolding.
40	Insurance Ireland	Q2	Yes	We agree that Annex 2 presents a good overview. However, it is difficult to claim that "the costs are outweighed by the benefits of undertakings considering short and long-term climate change risks in their ORSA". The benefits are very difficult to assess due to the uncertainty of the results with such a long-term horizon and the necessary simplification of hypotheses to perform such exercise. The consequences of climate change are far-reaching and not entirely predictable by an insurance company, especially in terms of the social impact and	Partially agreed. EIOPA recognises that there are a number of tools that can be used to capture parts of the climate change risk and has issued a discussion paper proposing a regular recalibration of the SF NL Cat risk. This

				economic effects. For example where some non-life insurance companies determine that a particular area may become too much of a flood risk and thus exclude this area from cover rendering some homes/businesses uninsurable. Another example is where some assets may be determined to pose a transition risk investors may flee, leading to a cost in terms of reduced valuations or, in the case of FI assets, some assets forced to provide a higher yield to attract investors, the company then suffering the opportunity cost of investing in these particular assets. The costs of such assessment include human time, use of external data providers, development of methodologies. The industry highlights that the modelling of climate change can be extremely complex and, as a consequence, expensive (as proven by the fact that the IPCC modelling is still under construction despite it being under development for decades). For this reason, it is important that models and analysis on climate change risk are introduced gradually, limiting their costs at the beginning. It is in the long term that it will be most important to have detection model in order to deduct conclusions from observed data. As uncertainties with respect to climate , exposure and vulnerability are larger in the very long run (eg the affordability of insurance premiums can change greatly over time), quantitative scenarios longer than 5 to 10 years are less useful and may result in higher costs than benefits . The longer the time horizon, the more qualitative in nature this should be. (see Insurance Europe comments on the methodology on climate stress testing). It seems far more efficient to deal with climate change catastrophe risks top-down than choosing an onerous bottom up ORSA approach. In the analysis of costs and benefits, EIOPA should take into account that:	will capture part of the increased climate change risk. However, the ORSA is considered an appropriate tool for each undertaking to analyse the potential risks the firm is exposed in the future in relation to climate change risk and ensure that the future business decisions will consider these exposures. By introducing climate change risk scenarios within the ORSA, the insurance companies will be able to gain insight into material exposures and the impact these could have in the financial resilience of the firm in the future. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This

				• There might be a number of tools to achieve its goals. For example, EIOPA could review non-life catastrophe risks more frequently resulting in recalibrated Standard Formula capital requirements thereby capturing the increased climate change risk timely; and • Climate change stress tests in the context of the European stress testing exercise could also help create awareness and the benefits can definitely outweigh the costs if the stresses are not performed too frequently. The industry notes that the outcome of such assessments could be useful also for an insurer's ORSA, especially because it raises awareness is in the risk management function. Finally, regarding EIOPA's assessment of the limited number of insurers including climate risk in ORSA, we invite EIOPA to disclose and take into account the examination year for the assessment. As this is an area of rapid development, the evolution of this number over time might reveal a different perspective and show the progress made in recent years by insurers with respect to climate change assessments.	includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. The stress tests are considered a good tool to provide an overall overview of the insurance market, however EIOPA proposes the use of climate change risk scenarios in the ORSA to ensure that each firm is able to capture the specifics of their business and assess the impact in a more appropriate and suitable approach to the characteristics of their portfolio. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such

					as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business. It was clarified that the 2019 ORSAs were used to perform our analysis.

41	Swiss Re	Q2	No	While Swiss Re believes that there can be benefits of considering long-term climate change risks for firms, EIOPA states that the costs of producing such an analysis are outweighed by the benefits without presenting any evidence to justify this statement. EIOPA should provide evidence on how it came to this conclusion. For Swiss Re, the costs for decision-useful analyses, independently of the term of the analysis, can be justified based on the precautionary principle and our understanding of potential negative consequences for the (re)insurance industry arising from climate change. While insurance companies might only be exposed to very specific physical risks depending on their geographical underwriting scope, transition risks are less specific to geography but rather linked to the investment profile, as explained in Annex 2.5. While we agree with the statement that 'climate change is having an impact on the frequency and concentration of extreme weather events and natural disasters', it does not follow that this impact must be negative, but rather will differ greatly depending on the geography and perils examined. ORSAs may only pick up this effect in a holistic manner. Swiss Re supports EIOPA's concerns on insurability, we note, however, that even where properly examined, any individual companies' ORSA will at best only pick up a particular companies' challenges, although issues of insurability may only arise as a result of collective action. Similarly, the perspective of analysing the impacts of undertakings on climate risks is interesting and novel, but because the ORSA takes a microeconomic perspective it will be difficult for any individual undertaking to show a meaningful individual impact. While EIOPA may be well placed to looking across the ORSAs to identify trends, we	Noted. EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs,

				caution that the use of a microprudential supervision tool such as the ORSA should not be overinterpreted or redirected to achieve macroprudential purposes.	EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business.
49	EIOPA Insurance and Reinsurance Stakeholder Group	Q3	Yes	European insurers should (or could) assess climate change risks in both short and long term in their ORSA. However, we find that the opinion is strongly outbalanced on the consideration of the long-term. The importance of the short-term management of climate risks should not be understated: while the effects of climate risks are probably more severe in the long-term, the risks should be addressed in the short term. There should be a cautiousness in adding a greater prescriptiveness to the ORSA. Focusing on how to assess climate change risks, the inclusion of climate change scenario analysis in the ORSA should be subject to the materiality of climate risks for the insurer. Based on this materiality assessment, the insurer should be able to decide how to consider climate change risks in their ORSAs (e.g. via a long- or short-term assessment or a qualitative versus a qualitative assessment) and the definition of long-term, which usually would go over the strategy period of say 3 years. The appropriate level of granularity of the assessment, as	Partially agreed. EIOPA acknowledge that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to assess the impact of climate change to their business. Furthermore, EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and

				well as whether it is quantitative or qualitative, may vary depending on the risk being addressed - the consensus today seems to be that life business will be impacted to a far lesser degree compared to assets and P&C and over a far longer time horizon, according to the TCFD reports of a wide range of players – and whether a short- or long-term view is taken. In principle, the longer the horizon, the more qualitative the analysis should be. It is highlighted that identifying climate signals in the hazard statistics and to estimate expected losses from the current climate risks is already a very sophisticated task for the most advanced modelers. Yet it is an important first step to assess current climate risks as it provides an economic basis for the assessment of future climate change risks. Furthermore, it should be clarified in the Opinion that the most relevant horizon in the context of the ORSA is related to the strategic and business planning, which is the near future and focused on the actionable time horizon. Beyond this time horizon, a more qualitative approach is preferred as there are limited capabilities in the market for projecting changes in a firm's economic position based on factors (apart from climate) such as changing customer behavior, resilience measures, technology and governmental policy responses. For example, trying to assess the potential impact of a changing climate in 2050 and beyond, thus very long-term, on current exposure could be useful in raising awareness, but given the operational overhead of carrying out these studies, a qualitative assessment of potential pathways grounded in intelligence from climate model is arguably more prudent. The importance of these longer-term qualitative assessments, that are beyond the immediate business planning horizon, should not be overstated and should not	proportionate approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for

				constrain or distract from a focus on granular quantitative assessments on the business planning horizon. We also remind that sophistication in modelling should not be a goal in itself but should produce meaningful results. Furthermore, regardless of how sophisticated models are, without good quality data, good quality analysis would still be challenging if not meaningless. EIOPA expects that the scope for long-term analyses will expand including sophistication of quantitative scenario analyses. It should be clarified that this should still serve the aim of producing meaningful results that are helpful to support decisions, rather than increased modelling for the purpose of advancing sophistication. For this reason, EIOPA should refrain from specifying a timeline. Similarly, we caution against moving faster than what data vendors and modelling can facilitate. While there are providers who support e.g., a 1.5-degree scenario today, the data quality is not high, and modelling relies on a number of key assumptions and is subject to a number of weaknesses and limitations.	insurance companies to design their own appropriate scenarios that will capture the specifics of their business. See amendments in section 3.
50	FERMA (Federation of European Risk Management Associations)	Q3	Yes	Yes, but...It depends on the nature, scale and complexity of their business model. See previous comments, the PoP should be applied here. In theory it makes sense to look at short- medium- and long-term from an overall risk management point of view. From that initial risk assessment, organisations will thereafter be able to prioritise on the risks they can take action on.	Noted. EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach.
51	AMICE	Q3	No	We believe that both short term and long-term climate change risks are relevant to the ORSA. A long-term approach might also be applicable to other relevant not	Noted. EIOPA acknowledges that there are significant

				climate related risks. As mentioned under question 2, quantitative scenarios with a time horizon longer than 5 to 10 years are not very useful. Climate change is a gradual process and (re)insurers strategic planning and business strategies do not generally have horizons longer than 10 years. It is also important to integrate climate change as a key factor in the strategic planning and business strategy process.	difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to asses the impact of climate change to their business. EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain

					from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business.
52	AIR Worldwide	Q3		AIR supports fostering a forward-looking management of climate change risk whether that is within or outside of ORSA.	Noted.
53	Unipol Group S.p.A.	Q3	No	Long-term projections coupled with management actions require definition of relevant assumptions that could impact the credibility of forward looking valuations. Apart from the climate change requirements, there are not other relevant reasons for Companies to project balance sheets for such a long term as decades. Unipol Group believes that in the order to maintain credibility and reliability on climate change risk scenarios,	Noted. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform

				in particular in the introductory phase of climate related valuations in ORSA, a shorter term stress approach could be preferable. Long term scenarios calibration and application to the strategic planning time horizon (3-5 years) could be considered a good compromise. However we agree climate change could have a higher effect on a longer time span, while in the short period climate variability and climate change are indistinguishable, but in our opinion definition of a scientifical sound and meaningful long term valutation approach needs to be further investigated before applying.	quantitative analysis to asses the impact of climate change to their business. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications

					which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business.
54	PIU - Polish Chamber of Insurance	Q3	Yes	PIU agrees that undertakings should not only assess climate change risks in the short term, but also in the long-term to inform strategic planning and business strategies. However, we believe it should be left to the undertaking to decide whether the ORSA or another report is better to present the results of such analyses. The key thing is the common understanding that the effects of climate risks are in general more severe in the long-term, however the risks should be managed by the insurers in the short-term. Long term analyses should inform strategic planning and business strategies, however they need to be taken into account with caution as there are multiple factors that will affect the real developments that are unknown or not included in the analyses due to lack of reliable data. Therefore in PIU opinion it make sense to perform qualitative assessments with some quantitative estimates showing for example the scale of the future problem in current business model. While such analyses raise awareness and provide a lot of food for thought it cannot be a basis for any estimates of the impact on solvency of the insurer in future.	Noted. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to assess the impact of climate change to their business. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance

					companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business.
55	EY	Q3		It is important that undertakings assess climate risks over different timescales, for different purposes and with differing considerations and tools. In considering those different timescales it may be useful to codify what is meant be short, medium and long term, not least to establish a common understanding among participants as to what is implied by such statements. We note the determination of short, medium and long term horizons in the EIOPA consultation in respect of Natural Catastrophes Standard Formula; Were such calibration to be applied here we are likely considering risk arising in the short term	Noted. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to assess the impact of

				(over the remainder of this decade) to lie within the scope of the ORSA; that risks arising beyond this likely lies out with the scope of an ORSA but may be part of a macro prudential policy tool kit and may consider a horizon out to 2050, consistent with the medium term horizon; Matters that extend beyond 2050 out to end of century arguably lie outside of either micro or macro prudential policy but are matters of broader societal and stakeholder interest and significance. For clarity, there are extant valuation requirements and risks for assets and liabilities already attaching to balance sheets and in the preparation and presentation of any projection, whether short, medium or long term. We acknowledge that those valuations are subject to valuation risks and those valuation risks are likely heightened when a full regard to future risks arising for climate change are considered. Climate risks, both physical and transition, are already impacting assets and an ongoing combination of these risks is foreseeable over the next few decades noting that there are clear short-term risks associated with policy responses and market sentiment. On the physical risk side, we are locked into further warming until at least 2050, meaning that the physical risk environment will continue to deteriorate along a base trajectory; It is this trajectory or established deterioration that is the subject of specific consideration in the EIOPA consultation on Natural Catastrophe's which is running in parallel to this consultation. Specifically, over that timescale we are likely to see increased impacts from chronic climate risks in addition to heightened frequency and severity of acute climate risks. It is expected that such considerations are to be taken up	climate change to their business. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for

				into valuations of liabilities for the duration of their contract boundaries in the first instance with continued regard in extended planning and capital scenarios where the planning horizons anticipate the run off liabilities that are within the contract boundaries of obligations that attach over that horizon. Transition risks are already impacting some companies and conversely there are significant transition opportunities creating value for others. Regardless of how quickly society moves to net-zero, the transition will see significant re-allocation of capital and the emergence of new business models. Taken together, we are in a period of heightened valuation uncertainties for both assets and liabilities, with an expectation that the uncertainty will lead to price volatility; Furthermore, firms can expect significant shifts in the global economy with the potential to impact strategies and business models in a variety of ways. An examples of such near term risks and dislocations is that some firms are exploring disorderly transition scenarios, for example in regard to the Inevitable Policy Response noting this is not widespread market practice. Specifically, the Inevitable Policy Response is one of the better known and most clearly specified disorderly scenarios from a transition risk perspective and is sponsored by UN PRI. Having regard to horizons beyond the short term, the benefit of climate scenarios is perhaps more usefully viewed through the lens of a strategic planning exercise rather than a stress test or resilience test.	insurance companies to design their own appropriate scenarios that will capture the specifics of their business.

				A number of insurance companies have used external providers, with more sophisticated firms developing bespoke scenarios with these providers to further stress test assumptions outside the set of standard scenarios (i.e. IPCC etc). Some firms have developed modelling capability in-house, ranging from top-down, macro-economic climate scenario modelling capability, using the IIPCC's scenarios and accompanying open source data linked to the Shared Socio-Economic Pathways (SSPs) as inputs to bottom up stock level analyses. We are aware of firms undertaking Reverse Stress Test exercises, built off the PRA Life Stress Tests, which might consist of a combination of enhanced physical risk and disorderly transition type factors – predicated on the Inevitable Policy Response type thinking for transition, i.e., abrupt policy shifts such as the China net zero announcement. These are essentially exploratory scenarios and can be run as immediate shocks, rather than in the future, to explore possible impacts prior to 2025.	
56	Partnership for Carbon Accounting Financials	Q3	Yes	Considering the relevance and potential impact of climate related risks on insurers, including sustainability considerations in the insurers' business strategy and processes is seen as inevitable for their economic resilience and viability over the long-term. That includes the ORSA. Climate risks can influence both liquidity and the medium- and long-term funding of insurers. As a result, insurers should take into account these factors when managing risks over an appropriate set of time horizons and under normal and stressed conditions. Proactive strategies and forward-looking approaches, including an appropriate ORSA, which aim to build resilient business models in the long-term combined with adequate governance arrangements should be understood, if appropriately designed, as tools mitigating the potential impact of risks. The long-term resilience of the insurance undertaking, the	Noted.

				viability of their business model, depends on its ability to deal with the longer-term impact of risks, including climate related risk. Environmental performance should serve as determinants for longer term assessments of financial and sustainable soundness as much as financial information. Absolute financed emissions as well as the development of e.g. carbon intensity of the insurers' exposures would serve the assessment of the insurers' longer-term soundness.	
57	German Insurance Association	Q3	Yes	Yes, we agree that the assessment should principally be short and long-term. However, the terms of the assessment of climate change risks depends on the business model and specific risks of the insurer. Long-term products, material risks and long-term investments have to be assessed by insurers using the long-term scenarios, but other products, risks and investments do not. A proportionate approach must suffice if adequate. Considering non-life there is no unique and definitive answer for all undertakings. It depends on the written business: proportion of premium volume or risk related to natural catastrophes in comparison to the totals, time needed to take measures against negative developments such as a sudden increase in number of storms and floods, a significant rise in reinsurance premiums or the impossibility to obtain reinsurance cover at all, time to take for the measures to be fully effective etc. If premium volume or risk related to natural catastrophes is not substantial compared to total business a quantitative long-term projection would be unnecessarily burdensome. The cost of such a projection would not be justified. Also, if an undertaking can take fully effective measures within a short time-horizon a short-term projection is adequate. This could for example be the case if an undertaking can adjust premiums yearly. In these cases, it makes more sense to put the effort in the assessment with a short-term	Partially agreed. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to assess the impact of climate change to their business. Furthermore, EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach. EIOPA acknowledges the inherent

				perspective. Further, a short-term perspective can include trends - and do so - if trends are measurable. Considering an asset manager's perspective, a climate change risk-assessment in the short, but also in the long-term could be an advantage. However, we also see the challenges of quantifying a risk that has never occurred before, for short-term and especially for the long-term-view. This applies above all to transition risks, the occurrence of which depends on a variety of circumstances (political decisions, inventions, etc.). Even if these primarily materialise in the long term, a short-term occurrence due to inventions or political decisions, for example, cannot be ruled out. However, these are imponderables that are not covered by models in such a way that sufficiently convincing results can be achieved. This generally makes it hard to develop and then calibrate corresponding models, particularly one that goes beyond a sectoral view. Because it should be clear that, e.g. not all companies of the energy sector are laggards. The question is how to distinguish the better from the worse in order to make a differentiated assessment of the portfolio risk. This is very important since an undifferentiated analysis could result in reallocation transactions worsening the portfolio diversification and improper treatment of "rather green than brown" or currently transforming energy companies with all the negative consequences like higher funding costs for them. Therefore, transparency regarding companies' environmental footprint and their sustainability development goals and the availability of this data is important. Beyond that, insurers did observe and measure any new developments of all new emerging and all known risks in the past and will do so in the future. It is a substantial part of the business model (underwriting, investments etc.) to react dynamically to these developments. As new risks	uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their

				appear or change, new products are developed while others are taken off the market	business. See amendments in section 3.
58	Actuarial Association of Europe	Q3	Yes	As already commented at Q1 and in line with article 3.3 we agree that long term considerations cannot be dismissed as less relevant. Long-term scenarios are a key complement to short term scenarios to inform management on climate change risk. We agree that there is a need for a common taxonomy when defining climate change risks, and the definitions and drivers in chapter 3.6 seem useful and appropriate. Climate change is expected to generate long term trends. For physical risk, trends can be increases in frequency and severity of climate events but also incremental deviation of some behaviours and tendencies. Climate change risks may be invisible from a short-term perspective. The impact of transition risk can only be assessed in long term scenarios. Therefore, it is important to analyse climate risks also from a long-term perspective. The outcome can help to assess possible short-term effects. Long-term developments might speed-up unexpectedly. Then long-term effects become relevant even short-term. It is important to prepare for a long-term change in the short-term. After five years, the stakeholders' view on necessary changes might differ significantly from today. Long-term projections allow to check the consistency of the assumptions ("narrative") with the strategic planning of the own undertaking. Nature, extent of the risks and uncertainty differ and affect the time horizon of insurers. The reliability of long-term projection is questionable in a multi-year multi-state framework. A differentiated approach is needed between short-term and long-term where solvency ratio should not be projected above a mid-term horizon.	Partially agreed. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to assess the impact of climate change to their business. Furthermore, EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several

				Thus it could be beneficial to carry out both qualitative analysis and quantitative analysis to assess whether climate change is a material risk for the undertaking. In the event of climate change not being a material risk for an undertaking then it would be appropriate that a reasoning for this conclusion should be documented. Although long-term scenario analysis is a fundamental part of the forward-looking approach, a qualitative approach may be more appropriate here, reflecting the inherent uncertainty over this time horizon. Whether firms choose such an approach will depend on their business model and own materiality analysis, as well as the nature of the risks. For example, transition risks may materialise quite quickly and may therefore need to be analysed within a shorter timeframe than would be appropriate for physical risks. It is agreed that the appropriate level of precision may vary depending on whether a short- or long-term view is taken. Furthermore, the usable output (or resultant decisions) from a given long term scenario might often not be expected to change much from one year's ORSA to the next. In this regard we welcome the acknowledgement in paragraph 3.23 that "the long-term scenario analysis will also allow for more simplified approaches and assumptions". The description could also explicitly mention decreasing expectations around complexity and quantification, the longer the time horizon employed, recognising that uncertainty increases the longer the time horizon under consideration, in which case qualitative analysis may be employed. Long-term projections will inevitably have broader funnels of uncertainty. This has to be considered, when using the results in strategic decisions. New methods could be experienced to apply to improve the management of uncertain future risks. General remark: Care should be exercised when	external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business. See amendments in section 3.

				implementing mandatory quantitative / scenario analyses, especially considering the numerous sources of uncertainties related to different climate change scenarios/representative concentration pathways. Further to consider: Capital markets are expected to anticipate future long-term developments already in the short-term (market price). Although this can be partly seen already in certain industry sectors today regarding the transition to fossil-free economy, it is not evident what specific long-term scenario the capital market is anticipating today and to what extent. Therefore, it is important that undertakings understand the full range of possible long-term scenarios – as these can have a huge leverage on short-term market prices. This will then illustrate possible market price volatilities.	
59	UAB "SB Draudimas"	Q3	No	Long-term climate change risk assessment is very complex due to future uncertainty and will require a great deal of assumptions. Also, at present, the long-term effects of climate change are generally vague and unclear. All the other risks are evaluted for short term period, but we can‘t say these risks are less important than climate change risk. We therefore believe that the climate change assessment should be carried out for the same period. And a possible long-term assessment would be introduced after a certain period of time, when companies will gain knowledge and experience in short-term assessment of this risk.	Noted.
60	JBA Risk Management Limited	Q3	Yes	A definition of short / medium / long term would be helpful, similar to Table 1 in https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/publication/2019/a-framework-for-assessing-financial-impacts-of-physical-climate-change.pdf There’s a need to be pragmatic around long term estimates though, because of changes in products, protection	Noted.

				measures (especially for flood), property structures and protections and regulation.	
61	Moody's ESG Solutions	Q3	Yes	We believe it would be important for insurers to assess both the short- and long-term implications of climate change. Financial markets are forward-looking, and with real interest rates at record historical lows, the long-term viability of investments and business models have never been so important to market valuations. The physical damages associated with climate change are a clear example of an economic externality which markets have failed to price. It should not be assumed that this situation will be allowed to continue for much longer. In this vein, despite the long-term focus of insurers, a better understanding of the implications today will be beneficial. For example, with regards to transition risks, most climate modelling currently assumes equilibrium rather than market conditions for valuation ratios. In contrast, the energy sector and fossil fuels/coal have underperformed other investments for several years. They are trading on low ratios and are considered undervalued by many industry analysts. This creates a risk that insurers, or their asset managers, reach for yield and see opportunities for outperformance in these sectors. With regards to physical risks, it is important to recognise that historical levels of emissions and lags in the climate system mean that physical risks will likely increase for some significant time, regardless of future cuts in emissions paths.	Noted.
62	Insurance Europe	Q3	Yes	European insurers recognise the importance of fostering a forward-looking management of climate change risks by insurance undertakings. However, the focus of the opinion on the long-term should not overshadow the importance of the short-term management of climate risks. While the effects of climate risks are probably more severe in the long-term, the risks should be addressed in the short-term. Therefore, both short-term and long-term climate change risks might be relevant to the ORSA.	Partially agreed. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform

				There should be a cautiousness in adding greater prescriptiveness to the ORSA. The inclusion of climate change scenario analysis in the ORSA should be subject to the materiality of climate risks for the insurer. Based on the materiality assessment and on its own assessment of current solvency relevance, the insurer should be able to decide how to consider climate change risks in their ORSAs (eg via a long- or short-term assessment or a qualitative versus a qualitative assessment) and have flexibility to reflect differences in time horizons and company specificities. Therefore, the definition of long-term should be decided by each undertaking. In addition, while the industry agrees that the appropriate level of precision may vary depending on whether a short- or long-term view is taken, it also notes that it is also subject to data issues and considerations. Regarding how to consider the climate change risks in the long-term, the industry has the following comments: -Quantitative scenarios with time horizons longer than five to 10 years risk being unreliable for use in strategic planning and business strategies, as strategic planning is not usually performed over the very long-term (time horizons are usually not longer than 10 years). For example, quantitatively projecting balance sheets decades onwards (eg with a 10-year time horizon) is unlikely to provide meaningful information because: >It would be very difficult to include reactive management actions to any observed trends affecting investments and liabilities. >It would not account for asset reallocation strategies which are currently being carried out in the shorter term.	quantitative analysis to assess the impact of climate change to their business. Furthermore, EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future.

				>This ignores the fact that adaptability is key when considering long-term risks and that some risks can be dealt with gradually as the system will adapt (premiums will rise, coverage will decrease, reserving will adapt to different trend estimates, and so forth). Sudden changes in the long-term are not predictable, which makes their inclusion in a scenario not very valuable. -A qualitative approach would often be a more reasonable and appropriate approach. While there is a risk that such an assessment would not contribute towards strategic planning and business strategies (and instead just be a box-ticking exercise for compliance reasons), the ORSA process should enhance the management of the undertaking. Therefore, it is important that each undertaking can include the types of analyses that are relevant to them. -A quantitative long-term projection should be considered in the context of the premium volume exposed to climate change risk compared to total business volumes, as well as the required time to take measures against potential negative developments. If an undertaking can take fully effective measures within a short time-horizon, then a short-term assessment is adequate. -From an investment perspective, a climate change risk-assessment in the short, but also in the long-term could be an advantage. However, there are challenges in quantifying a risk that has never occurred before, for short-term and especially for the long-term-view. This applies above all to transition risks, the occurrence of which depends on a variety of circumstances (political decisions, regulations, etc.). Even if these primarily materialise in the long term, a short-term occurrence due to regulations or political decisions cannot be ruled out. Yet, these instances are hardly covered by models and it is	To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business. See amendments in section 3.

				hard to achieve a differentiated assessment of the portfolio risk based on justifiable assessment going beyond a sectoral view. EIOPA expects that the scope for long-term analyses will expand, including the sophistication of quantitative scenario analyses. It should be clarified that this should still serve to produce meaningful results for informed decision-making, rather than advancing sophistication per se. For this reason, EIOPA should refrain from specifying a timeline.	
63	CRO Forum	Q3	Yes	In principle, we would agree that a long-term perspective in climate analysis is relevant but with the caveat that it could rather than should be taken in the context of the ORSA. It should be done depending on relevance and with initial expectation that it may be on a qualitative basis while allowing firms the option to develop quantification if they consider it to be materially insightful given the inherent uncertainty across this time horizon. While we agree that long-term scenario analysis is a fundamental part of the forward-looking approach, we would highlight that for the long-term analysis a qualitative approach may be more appropriate reflecting inherent uncertainty across this time horizon. Whether firms will choose such an approach will depend on the business model and materiality analysis for the particular business under consideration as well as the nature of the risks. For example, transition risks may materialise quite quickly and may therefore need to be analysed on a shorter timeframe than would be appropriate for physical risks. Further, the consensus today seems to be that life underwriting of biometrics risk will be less impacted than investment and P&C activities and over a longer time horizon according to the TCFD reports of a wide range of players. We agree that the appropriate level of granularity of the	Partially agreed. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to assess the impact of climate change to their business. Furthermore, EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach.

				assessment, as well as whether it is quantitative or qualitative, may vary depending on whether a short- or long-term view is taken. In principle, the longer the horizon, the more qualitative the analysis should be. It is highlighted that identifying climate signals in the hazard statistics and to estimate expected losses from the current climate risks is already a very sophisticated task for the most advanced modellers. Yet it is an important first step to assess current climate risks as it provides an economic basis for the assessment of future climate change risks. Furthermore, it should be clarified in the Opinion that the most relevant horizon in the context of the ORSA is related to the strategic and business planning, which is the near future and focused on the actionable time horizon. Beyond this time horizon, a more qualitative approach is preferred as there are limited capabilities in the market for projecting changes in a firm's economic position based on factors (apart from climate) such as changing customer behaviour, resilience measures, technology and governmental policy responses. For example, trying to assess the potential impact of a changing climate in 2050 and beyond, thus very long-term, on current exposure could be useful in raising awareness, but given the operational overhead of carrying out these studies, a qualitative assessment of potential pathways grounded in intelligence from climate model is arguably more prudent. The importance of these longer-term qualitative assessments, that are beyond the immediate business planning horizon, should not be overstated and should not constrain or distract from a focus on granular quantitative assessments on the business planning horizon. In addition, over such periods, insurers can take a wide range of mitigating actions that will greatly reduce any impact of	EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios

				climate change and which will be adapted to the changing dynamics of the underlying climate risks as needed over time. As such they are difficult to quantitatively account for ex-ante in long-term scenarios. We also remind that sophistication in modelling should not be a goal in and of itself but should produce meaningful results. Furthermore, regardless of how sophisticated models are, without good quality data, good quality analysis would still be challenging if not meaningless. EIOPA expects that the scope for long-term analyses will expand including sophistication of quantitative scenario analyses. It should be clarified that this should still serve the aim of producing meaningful results that are helpful to support decisions, rather than increased modelling for the purpose of advancing sophistication. For this reason, EIOPA should refrain from specifying a timeline. Similarly, we caution against moving faster than data vendors and modelling can facilitate. While there are providers who support e.g., a 1.5-degree scenario today, the data quality is not high, and modelling relies a number of key assumptions and is subject to a number of weaknesses and limitations.	that will capture the specifics of their business. See amendments in section 3.
64	Insurance Ireland	Q3	Yes	Yes, insurers recognise the importance of fostering a forward-looking management of climate change risks by insurance undertakings. However, the focus of the opinion on the long-term should not overshadow the importance of the short-term management of climate risks. While the effects of climate risks are probably more severe in the long-term, the risks should be addressed in the short term. Therefore, both short term and long-term climate change risks might be relevant to the ORSA. EIOPA should be cautious in adding a greater prescriptiveness to the ORSA. The inclusion of climate change scenario analysis in the ORSA should be subject to	Partially agreed. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to assess the impact of climate change to their business. Furthermore,

				the materiality of climate risks for the insurer. Based on the materiality assessment and on its own assessment of solvency needs , the insurer should be able to decide how to consider climate change risks in their ORSAs and have flexibility to reflect differences in time horizons and company specificities. Therefore, the definition of long-term should be decided by each undertaking. Regarding how to consider the climate change risks in the long-term, the industry has the following comments: • Quantitative scenarios with time horizons longer than 5-10 years risk being not very reliable and useful to inform the strategic planning and business strategies, as strategic planning is not usually performed over the very long term (time horizons are usually not longer than 10 years). For example, quantitatively projecting balance sheets decades onwards (eg with a 10 year time horizon) is unlikely to provide meaningful information because this: - Would not include reactive management actions to any observed trends affecting investments and liabilities. - Would not account for asset reallocation strategies which are currently being carried out in the shorter term; and - Ignores that adaptability is key when considering long term risks and that some risks can be dealt with gradually as the system will adapt (premiums will rise, coverage will decrease, reserving will adapt to different trend estimates, and so forth). Sudden changes in the long term are not predictable, which makes their inclusion in a scenario not very valuable. • A qualitative approach would often be a more reasonable and appropriate approach. While there is a risk that such an assessment would not contribute to the strategic	EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs,

				planning and business strategies (and instead just be a tick-the-box exercise for compliance reasons), the ORSA process should enhance the management of the undertaking. Therefore, it is important that each undertaking can include the types of analyses that are relevant to them. • The time horizon of any scenario analysis run in the ORSA should be kept to around 3 to 5 years. Generally, a long-term approach might be applicable to other relevant not-climate related risks too. Focusing on climate change risks, the industry notes that their assessment is key in the short term first, but the opinion offers in general only a limited view on the matter for non-life companies.	EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business. See amendments in section 3.
65	Swiss Re	Q3	Yes	In principle, Swiss Re agrees that long-term scenario analysis is a fundamental part of the forward-looking approach. However, this is one of many tools at undertakings' disposal and will heavily rely on the availability of standardised methods and high quality of data. Whether a company performs a long- or short-term assessment or a qualitative versus a qualitative assessment must be a result of a materiality analysis for the particular business under consideration as well as the nature of the risks. For example, transition risks may materialise quite quickly and may therefore need to be analysed on a shorter timeframe than would be appropriate for physical risks. We agree that the appropriate level of precision may vary depending on whether a short- or long-term view is taken. Swiss Re welcomes a collaborative approach to define consistent scenarios and best practice guidance including	Partially agreed. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to assess the impact of climate change to their business. Furthermore, EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by

				how results should best inform strategic decision-making over different time horizons. The time spans covered by scenario analyses should reflect how long it might take for material impacts associated climate change to emerge. Scenarios best capture the potential multi-dimensional effects of sustainability risk and climate change on insurance. The range of scenarios should reflect the underlying uncertainties of climate change risks, and the impacts of other factors that could amplify, mitigate or distort the risks. As mentioned before, the ORSA would not be the appropriate place to harmonise expectations, as it is in the sector's interest to consider a wide range of scenarios. The importance of longer-term qualitative assessments, that are beyond the immediate business planning horizon, should not be overstated and should not constrain or distract from a focus on granular quantitative assessments on the business planning horizon. In addition, over such periods, insurers can take a wide range of mitigating actions that will greatly reduce any impact of climate change and which will be adapted to the changing dynamics of the underlying climate risks as needed over time. As such they are difficult to quantitatively account for ex-ante in long-term scenarios. We also remind that sophistication in modelling should not be a goal in itself, but should produce meaningful and actionable results. EIOPA expects that the scope for long term analyses will expand including sophistication of quantitative scenario analyses. It should be clarified that this should still serve the aim to produce meaningful results that are helpful to support decisions, rather than increased modelling for the purpose of advancing sophistication. For this reason, EIOPA should refrain from specifying a timeline. Similarly, we caution against moving faster than data vendors and modelling can facilitate. While	(re)insurance undertakings in their ORSA apply a risk-based and proportionate approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding

				there are providers who support e.g., a 1.5 degree scenario today, the data quality is not high, and modelling relies a number of key assumptions and is subject to a number of weaknesses and limitations.	climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business. See amendments in section 3.
73	EIOPA Insurance and Reinsurance Stakeholder Group	Q4	Explanation should be less specific	The ORSA should be kept the company's own assessment and scenario analyses should be kept at the discretion of the insurer based on its own risk assessment. Also the need to use a magnitude of decades is absolutely not adequate considering the huge complexity and massive uncertainty of the entire subject and risk drivers. We believe the risk management due processes that insurers have in place already allow them to capture right in time what is needed to inform key management decisions and run insurance undertakings in a safe and adequate manner. Anyway, it shall be kept clear that such long-term scenarios will have a relatively different information role, given their long term time horizon and increasing level of uncertainties over time. We also believe that supervisory expectations should be aligned with the increasing complexity and difficulty in performing scenario analysis with longer time horizons. It is not clear how the climate change scenario analysis and the business plan are interconnected in the long term. Uncertainty with respect to climate, exposure and vulnerability can be extremely strong over a horizon of decades and insurers can gradually adapt their strategy on	Partially agreed. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to assess the impact of climate change to their business. Furthermore, EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate

				climate change. The scenario analysis with a time horizon of decades is best addressed via qualitative indications. This is because quantitative modelling of long-term horizons would have to select only a limited number of highly uncertain outcomes, which could be misleading. While the time horizon decision is related to the exposure to climate change risks in the short, medium and/or long term, shorter time horizons of up to 5 years are likely more adequate for the ORSA. Long term scenarios should be applied in a proportionate manner depending on the business model and specific risks of the insurer. Therefore, each undertaking should be able to decide the appropriate time horizon to use in its ORSA.	approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to

					design their own appropriate scenarios that will capture the specifics of their business. See amendments in section 3.
74	FERMA (Federation of European Risk Management Associations)	Q4	Explanation should be more specific	It depends on the nature, scale and complexity of their business model. For some market participants, it may make sense to have scenarios spelled out and standardized upon which they can base their own more tailored scenarios. However, it is also important to bear in mind that for many undertakings a standardized scenario will fall short of many of the specifics of their profile. The very nature of the ORSA is to be tailored to the specific situation of the insurer.	Noted/partially agreed. The nature of an undertaking should influence the way in which they reflect about climate change risks, not the extent. EIOPA's request for explanation pertains to the categorical non-materiality of all climate risks, not their individual dimensions. Thus, it is not expected that undertakings justify the omission of every risk deemed non-material. We hope tools (and their availability) will soon evolve to allow undertakings of all sizes to properly evaluate climate change risks.
75	AMICE	Q4	Explanation should be less specific	It is obvious that climate change takes place within a magnitude of decades. For the society as a whole, scenario analysis of general developments may be useful. For an	Noted.

				individual undertaking, the quantitative perspective upon a magnitude of decades is not sensible considering the huge complexity and uncertainty of the risk drivers and vulnerabilities connected to climate change. As mentioned under question 3 most (re)insurers do not use generally horizons longer than 10 years. This is due to the experience that any quantitative outlook beyond is pure speculation and will be overshadowed by other developments that we cannot predict today. We believe that the risk management due processes that insurers have in place already allow them to capture right in time what is needed to inform key management decisions and run insurance undertakings in a safe and adequate manner. (Re)Insurers can therefore adapt their strategy on a gradual development like climate change. It is important for (re)insurers to have a good understanding of the potential volatility of climate related risks on the short term and how to manage them. Also see answer to question 2.	
76	AIR Worldwide	Q4		The explanation seems adequate. Given that the goal is to influence strategic planning and business strategies, it makes sense to allow for flexibility of the chosen time frame so that the analysis can be made most relevant to the individual undertakings strategic business questions and planning.	Noted.
77	Unipol Group S.p.A.	Q4	Explanation is adequate	We agree on the time span of climate change likely unfolding (an appropriate time horizon of decades may be useful to inform strategies), however we stress the difficulty of projecting balance sheet on such a long time scale; thus more simplifications than in the usual Orsa projections should be adopted to carry out meaningful, feasible and comparable climate change stress.	Noted.
78	PIU - Polish Chamber of	Q4	Explanation should be	No. Time horizons considered in 3.3., i.e. magnitude of decades are definitely not appropriate and even unrealistic	Noted.

	Insurance		more specific	to perform for insurers. The explanation of 3.3. is not adequate too. The reason is that quantitative scenarios with time horizons longer than five years are unreliable. Exactly for that reason insurers prepare quantitative projection of the financial figures usually for 3 to maximum 5 years. Those projections and business analyses are used in strategic planning and business strategies. The longer the time horizon the more difficult it is to reflect the management actions related to any observed trends affecting investments and liabilities. Adaptability seems to be a key when considering long-term risks. Insurers since years gradually adapt their systems via: premiums rise, coverage decrease, reserving adaptations to different trend estimates, investment strategies etc.	
79	EY	Q4	Explanation should be more specific	We would point back towards the opening paragraph to our response to question 3 which we repeat again below; It is important that undertakings assess climate risks over different timescales, for different purposes and with differing considerations and tools. In considering those different timescales it may be useful to codify what is meant be short, medium and long term, not least to establish a common understanding among participants as to what is implied by such statements. We note the determination of short, medium and long term horizons in the EIOPA consultation in respect of Natural Catastrophes Standard Formula; Were such calibration to be applied here we are likely considering risk arising in the short term (over the remainder of this decade) to lie within the scope of the ORSA; that risks arising beyond this likely lies out with the scope of an ORSA but may be part of a macro prudential policy tool kit and may consider a horizon out to 2050, consistent with the medium term horizon; Matters	Noted.

				that extend beyond 2050 out to end of century arguably lie outside of either micro or macro prudential policy but are matters of broader societal and stakeholder interest and significance. For clarity, we note that where risks are attaching within these horizons, we would anticipate that the risk scenarios would contemplate risks arising over the short, medium- and long-term horizons for the runoff of such liabilities and thus are contemplated in the expected loss valuation	
80	Partnership for Carbon Accounting Financials	Q4	Explanation should be more specific	In order to increase comparability of the insurers' analyses, both among themselves and for their supervisors, and in order to give clarity to insurers as to what is expected, we would recommend setting the required time horizon following the politically relevant horizons. That would be the 2030 target for GHG emissions reduction, and the Paris-target for 2050.	Noted.
81	German Insurance Association	Q4	Explanation should be less specific	The explanation should be less specific because the situation in life / health insurance is different to P&C. The adequate time horizon depends on contract boundaries. In P&C undertakings can react more quickly on the change of risk. Therefore, long-term scenarios are only to be applied in a proportionate manner depending on the business model and specific risks of the insurer. As written in Q2 and Q3, the results of a long-term analysis are not meaningful because of the high uncertainty. For this reason, in its second discussion paper on stress testing methods, EIOPA also refers to climate-related stress tests as an "important learning process with a more explorative nature". The goal of Solvency II is to ensure that the existing benefit commitments can be fulfilled at all times. ORSA reports are not intended to mitigate climate change.	Noted/partially agreed. The nature of an undertaking should influence the way in which they reflect about climate change risks, not the extent. EIOPA's request for explanation pertains to the categorical non-materiality of all climate risks, not their individual dimensions. Thus, it is not expected that undertakings justify the omission of every risk deemed non-material. We hope tools (and their availability) will soon

					evolve to allow undertakings of all sizes to properly evaluate climate change risks.
82	Actuarial Association of Europe	Q4	Explanation should be more specific	A long term view appears to be necessary. A longer time horizon than the usual 5-year business/strategic planning period would be appropriate for undertakings with long-term climate-related exposures and/or undertakings who will be required to significantly adapt the business strategy as a consequence of climate change. Longer term horizons could be discussed but for many undertakings a time horizon of decades could be unrealistic and difficult to project with credible outputs. The assessment of the effect that climate change has on an entities business strategy should be business as usual. It should however be continuously evaluated with management intervention and actions incorporated when deemed appropriate. A minimum time horizon could be requested, however, (re)insurance undertakings may be given the possibility to use longer time horizons should this be more relevant for their business. EIOPA could more explicitly illustrate why from their point of view it is important to consider time horizons of decades and the credibility assigned to these: e.g. climate scenarios typically develop over decades, insurer targets/actions timeframe can spread out over several decades, contrast the effect of a smoother transition vs late abrupt transition, contributing to political projects like the European Green deal. Guidance is also needed on long-term projection and how to integrate transition from other key players (e.g. energy sector) plus policy evolution to reflect a system in evolution. Assessing even the near-term implications of long-term climate change trends requires a long timeframe	Noted/partially agreed. The nature of an undertaking should influence the way in which they reflect about climate change risks, not the extent. EIOPA's request for explanation pertains to the categorical non-materiality of all climate risks, not their individual dimensions. Thus, it is not expected that undertakings justify the omission of every risk deemed non-material. We hope tools (and their availability) will soon evolve to allow undertakings of all sizes to properly evaluate climate change risks.

				– historic records as far back as they exist and future scenarios looking decades into the future. How will (re)insurers anticipate risks and opportunities unless they explore the same timeframes as policymakers and society at large? Precise quantification within the scenarios is less important than considering the possibilities, inter-relationships and implications. To consider: • Life companies (or pension schemes) and non-life companies would generally have different views here. A time frame of decades for scenario analysis for a non-life company may make less sense particularly where the purpose of the ORSA is to protect policyholders of the existing portfolio. • It might be more useful to specify that companies define short term impacts as a result of consideration of long-term scenarios. A possible approach would be to be less specific, leaving this decision to company's management. It should be clearly stated that undertakings are not expected to project their solvency ratio over several decades. They should take into account the mid-term and long-term effects of climate change on its projected solvency ratio for the usual planning period. This allows insurers to focus on relevant climate risks in their business plan to take appropriate actions.	
83	UAB "SB Draudimas"	Q4	Explanation is adequate		
84	JBA Risk Management Limited	Q4	Explanation should be more specific	The definition of what is meant by a "long" (vs. "short"?) time horizon could be more specific, to enable comparability between results from different undertakings. e.g. Table 1 in https://www.bankofengland.co.uk/-	Noted. See amendments in section 3.

				/media/boe/files/prudential-regulation/publication/2019/a-framework-for-assessing-financial-impacts-of-physical-climate-change.pdf	
85	Moody's ESG Solutions	Q4	Explanation should be more specific	Our experience suggests that scenario analysis could be longer than the time horizons typically considered. It could span several decades, at least to mid-century, and ideally to end of the century, for insurance firms, depending on the business models and duration of assets and liabilities. For example, life insurers can have long duration liabilities which span decades. General insurers and reinsurers generally have shorter term business models, but the ongoing insurability of climate risks and hazards is fundamental to the industry's future.	Noted.
86	Insurance Europe	Q4	Explanation should be less specific	The need to use a magnitude of decades is not adequately explained in paragraph 3.3. The industry is of the view that undertakings should be able to decide on the appropriateness to use longer time horizons for scenario analysis than those considered in their ORSA. The time horizon decision is related to the exposure to climate change risks in the short-, medium- and/or long-term. In this respect, the supervisory expectations should be aligned with the increasing complexity and difficulty in performing scenario analysis with longer time horizons. The industry takes the view that: -A time horizon of up to five years is likely more adequate for the ORSA. As mentioned under Q3, most insurers do not generally use horizons longer than 10 years. Long-term scenarios should be applied in a proportionate manner depending on the business model and specific risks of the insurer. Dependent on the insurer and the way climate affects its business, climate change stress tests could be performed with more adequate frequency: eg not necessarily on a yearly basis (this might also depend on	Partially agreed. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to assess the impact of climate change to their business. Furthermore, EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and

				the Intergovernmental Panel on Climate Change (IPCC) issuing major updates more frequently). This would allow insurers to build a good understanding of the potential volatility of climate related risks in the short-term and how to manage it. The frequency of the stress should be coherent with new available insights on the topic and the pace of change of both climate and insurers' balance sheets. -The ORSA should continue to represent the undertaking's own view of its risk profile, and the capital and other means needed to address these risks. The undertaking should decide for itself how to perform this assessment given the nature, scale and complexity of the risks inherent in its business. Therefore, each undertaking should be able to decide the appropriate time horizon to use in its ORSA. -It is not clear how the climate change scenario analysis and the business plan are interconnected in the long-term. Uncertainty with respect to climate, exposure and vulnerability can be extremely strong over a horizon of decades and insurers can gradually adapt their strategy on climate change. The scenario analysis with a time horizon of decades is best addressed via qualitative indications. This is because quantitative modelling of long-term horizons would have to select only a limited number of highly uncertain outcomes, which could be misleading. This will also ensure that the results of a long-term analysis are meaningful, given the high level of uncertainty. -When there are no material climate transition risks affecting insurers in the coming years, transition risks will not necessarily be considered in the ORSA or visible in the scenario analysis run by insurers in the coming years. Moreover, scenarios would need to include assumptions on future business environment, which could be difficult to identify given the uncertainties related to such long-term	proportionate approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for

				horizon. The industry recognises that a magnitude of decades would have to be considered to understand climate change risks, possibly including transition risks as the Paris Agreement and European and international objectives are set for 2030 and 2050. However, there needs to be a distinction between financially related scenarios and "pure" climate scenario which have a different nature and objective.	insurance companies to design their own appropriate scenarios that will capture the specifics of their business. See amendments in section 3.
87	CRO Forum	Q4	Explanation should be more specific	See question 3. Indeed, in the light of the specific case of climate change the longer-term analysis could be part of the broader analysis that could go beyond the more quantitative analysis for the business planning horizon. The ORSA requires to use a timeframe which is consistent with the strategic or business planning horizon. It would also somehow contradict the core requirement. It may provide considerations for a more qualitative and contextual assessment, but not beyond this. It is therefore essential that flexibility is maintained in the ORSA on how each entity or group will choose to integrate the longer-term angle and that it does not come with the expectation that long-term quantitative analysis is to be performed in every cases and via pre-defined scenarios, nor that it would directly lead to potential capital consequences.	Noted.
88	Insurance Ireland	Q4	Explanation should be more specific	The need to use a magnitude of decades is not adequately explained in paragraph 3.3 and should be more specific. Insurance Ireland would like to note the following: • A time horizon of around 1 to 5 years is likely more adequate for the ORSA. As mentioned under Q3, most insurers do generally not use horizons longer than 10 years or are not likely to face material risk over that horizon. Dependent on the insurer and the way climate affects its business, an adequate frequency for updating ORSA climate change stress tests could be performed between	Partially agreed. EIOPA acknowledges that there are significant difficulties in managing to model climate change risk, however it is imperative undertakings make efforts to perform quantitative analysis to assess the impact of climate change to their

				once a year and once every five years (corresponding with IPCC major update frequency). This would allow insurers to build a good understanding of the potential volatility of climate related risks on the short term and how to manage it. The frequency of the stress should be coherent with new available insights on the topic and the pace of change of both climate and insurers' balance sheets. • The ORSA should continue to represent the undertaking's own view of its risk profile, and the capital and other means needed to address these risks. The undertaking should decide for itself how to perform this assessment given the nature, scale and complexity of the risks inherent in its business. Therefore, each undertaking should be able to decide the appropriate time horizon to use in its ORSA. • Insurers can consider that there are no material climate transition risks in the coming years and decide, therefore, not to include it in their ORSA. That means transition risks will not necessarily be visible in the scenario analysis within the ORSA of insurers of the coming years, for instance in case of a late transition scenario .Moreover, scenarios would need to include management actions, which could be difficult to identify given the uncertainties related to such long-term horizon. • It is not clear how the climate change scenario analysis and the business plan are interconnected. Uncertainty with respect to climate, exposure and vulnerability can be extremely strong over a horizon of decades and insurers can gradually adapt their strategy on climate change. The scenario analysis with a time horizon of decades can only give some generic qualitative indications. This is because quantitative modelling of long-term horizons is very complex due to interdependencies	business. Furthermore, EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term and the dependency of the outcome to several external factors such as political decisions. However, the benefits in the long run are significant considering that the knowledge that the insurance companies will obtain from the particular analyses will ensure financial stability and resilience in the future. To support insurance companies and decrease the

				between environmental and socio-economic and other influencing factors, which would require extensive knowledge and development of insurers' existing tools and processes. We recognises that a magnitude of decades is relevant to understand climate change risks, especially transition risks as the Paris Agreement and European and international objectives are set for 2030 and 2050. However, there needs to be a distinction between financially related scenarios and "pure" climate scenario which have a different nature and objective. A specific insurance undertaking facing long term risks may find it useful to include long-term climate scenario analyses to better assess those risks. The analysis would then include both the ORSA time horizon as well as a longer time horizon to capture the effects of both transitional risks and physical risks.	implementation costs, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications which can provide a starting point for insurance companies to design their own appropriate scenarios that will capture the specifics of their business. See amendments in section 3.
89	Swiss Re	Q4	Explanation should be more specific	The description should explicitly mention short/medium/long term perspectives with decreasing expectations on complexity and quantification the longer the time horizon employed. However, as mentioned before, it is essential that flexibility is maintained in the ORSA about the integration of the longer-term angle and that it does not come with the expectation that long-term quantitative analysis is to be performed in every cases and via pre-defined scenarios, nor that it would directly lead to potential capital consequences.	Noted, see amendments in section 3.
97	EIOPA Insurance and Reinsurance	Q5	Yes	We find that the draft paper provides a comprehensive overview on the main climate change related risks and on the main transmission channels. As EIOPA notes, climate	Noted.

	Stakeholder Group			change can affect both sides of the balance sheet and can materialise through established risk categories. It is for this reason, that companies must be given enough flexibility to determine what risks are relevant for them, including risks not reflected in the overview. Also more room should be left to management actions and mitigation effects such as the possibility for insurers to change terms and conditions and/or policy underwriting criteria, the increasing resilience of exposures at risk. EIOPA seems to focus on the negative impacts on the balance sheet, but there might be counterbalancing arguments and some developments that could results in a more nuanced impact on the actual balance sheet risk from climate related events. In addition, annex 3 and annex 4 mention that climate change is having an impact on the frequency and concentration of extreme weather events and natural disasters. In this context, it is unclear what is meant by "concentration of extreme weather events". We would propose to use the terms frequency and severity unless the intention was to refer to spatial and temporal clustering of events. If the intention was the latter, we would like to point out that current science would not support such a generalized statement (Annex 2.5) except maybe for very specific perils and regions. Furthermore, annex 3 & annex 4 make a link between pandemic risks and climate change without evidence supporting it. It is noted that in its most recent report published on the 23rd of November 2020, the Financial Stability Board made no reference to pandemic when assessing the implications of climate change for financial stability . We suggest removing the example of "pandemic" as it is not a direct climate-related physical risk.	

				In relation to risks stemming from climate change, we find that also risk of disruption to the financial system should be properly dealt with. This risk is well outlined in a recent paper on the topic . The same paper covers also the limitations of climate stress tests, which for the moment are effectively often scenario-based analysis, and when this concern about the approach would actually come into being.	
98	FERMA (Federation of European Risk Management Associations)	Q5	Yes		
99	AMICE	Q5	Yes	The list provides a good overview but EIOPA's approach needs to be more balanced and should leave room to management actions and mitigation effects such as the possibility for insurers to change the terms and conditions and/or policy underwriting criteria and the increasing resilience of exposures at risk. Physical risk: Some developments can have a more nuanced impact on the actual risk experienced in the climate related events: • EIOPA does not mention the possible positive impact that climate related developments can have on underwriting risk. For example, solar panels on roof tops can lower the claim amounts due to hail because a solar panel is easier to replace than a roof. • Business owners, who experienced climate related events in the past, have increased their defences against new climate developments. For example, greenhouses which have installed tempered glass are less vulnerable to hail damages.	Noted.

				With respect to life underwriting risk most life (re)insurers are exposed to both mortality and longevity risk. The increase of mortality due to heat waves may be (partly) compensated by a lower death rate thanks to milder winters. The combined effects of heat waves and milder winters depend on the exposures to longevity and mortality risk in different age groups. We suggest to add this to the table. EIOPA presents various examples which could negatively affect the balance sheet. For example, EIOPA points out that the demand for office spaces could decrease; If this is the case, office spaces could be remodelled to housing which in turn would alleviate the current housing shortage in some areas, benefit the local communities and have a positive impact on the economy. EIOPA also indicates that drier weather would have a negative impact on farming. However, drier weather also means more sunshine hours which in turn increases the returns on solar panels and decreases the need for fossil driven energy.	
100	AIR Worldwide	Q5		We would suggest reviewing the description of the underwriting risk in Annex 3 (Physical Risk, Acute). Very broad descriptions ("Climate change increases the frequency and concentration of extreme weather events and natural catastrophes [..]") are mixed with very specific impacts (e.g. on aviation hull). We would also suggest summarizing the first four bullet points as follows: Climate change (at least) regionally increases the frequency and concentration of certain extreme weather events and natural catastrophes (e.g. floods, wildfires, storms, heat waves, landslides) which regionally leads to higher insurance claims. Certain property lines of business will be mostly affected by changes to a specific	Noted.

				atmospheric peril (e.g. motor and aviation hull LoBs are probably strongest affected by changes in severe thunderstorm activity) while other LoBs will exhibit a sensitivity to changes of multiple perils.	
101	Unipol Group S.p.A.	Q5	Yes	We think that Annex 3 and Annex 4 cover a broad range of risks to which life and non-life companies may be exposed due to climage change.	Noted.
102	PIU - Polish Chamber of Insurance	Q5	Yes	The examples provided in Annex 3 and Annex 4 are very useful. Nevertheless their relevance should be assessed by each undertaking individually. Based on the portfolio some of the changes to risks may for example offset each other.	Noted.
103	EY	Q5	Yes	The list included in annex 3 and 4 is useful as a useful starting point but would note that the list is non exhaustive and not sufficiently encompassing and anticipate it will stay under development and evolve in time as anticipated by Question 7; As an example, for annex 3, the scope of the risk "values of real estate portfolios decline due to properties being located in areas highly sensitive to the increase in extreme weather events" is limited in the following way; The term 'weather event' determines quite a limited scope and one can observe climate change induced developments which affect the values of real estate and infrastructure as well (e.g. changing groundwater level not caused by weather events). As such the definition could be broadened into "values of real estate portfolios decline due to properties being located in areas highly sensitive to climate change related developments including an increase in extreme weather events; The examples are limited to physical and transition risks,	Noted. See amendments in section 3. The examples should not be interpreted as an exhaustive list of transition and physical risks but rather as illustrations to enhance understanding of the broad range of potential risks posed by climate change. The mapping matrices included in Annex 3 and 4 could be of assistance in obtaining a holistic view of the relevant types of climate change risks.

				which are the risks most commonly used in existing methodologies and papers. Liability / litigation risks should also be included in the examples, even if modelling might not be sufficiently mature at this stage on that category.	
104	Partnership for Carbon Accounting Financials	Q5	Yes	The Annexes show great similarity to those published by the NGFS as "Overview of Environmental Risk Analysis by Financial Institutions" in October 2020. We regard them sufficient.	Noted.
105	German Insurance Association	Q5	Yes	It is a good collection of possible events. However, this list ignores the fact that undertakings manage the risks on a regular basis by e.g. changing premiums, termination of contracts or adaptation of policies. The time span of climate change is in general longer than possible adaptations for the insurance industry. Apart from risks resulting from climate change, it is an essential part of the industry's strategy to monitor emerging risks.	Noted.
106	Actuarial Association of Europe	Q5	No	Annexes 3 and 4 provide a reasonably broad set of risks in a structured framework which are useful to undertakings in designing ORSA scenarios reflective of their own risk profile. In this regard, undertakings should have flexibility to determine what risks are relevant for them, which may include risks not reflected in these annexes. Although, the list of examples is already sufficiently large and it is not the objective to give an exhaustive list, we suggest some additional risk types for consideration: • Operational cost risks e.g. rent increases as landlords potentially pass on costs of building renovation; costs of climate expertise or increased costs of related compliance; energy costs via carbon tax; government levies to fund state action.	Noted. See amendments in section 3. The examples should not be interpreted as an exhaustive list of transition and physical risks but rather as illustrations to enhance understanding of the broad range of potential risks posed by climate change. The mapping matrices included in Annex 3 and 4 could be of assistance in obtaining

				• Operational/ compliance risks in relation to increased reporting requirements, IT systems, data quality etc. • The examples of strategic risks do not sufficiently highlight challenges posed by uncertainty and second-order impacts, e.g. from more extreme outcomes related to tipping points such as forced resettlement/migration, interruption to food and water supplies, pandemics. • Clarification suggested regarding diseases (pandemics?) and whether this relates to zoonotic diseases or vector-borne diseases, or both. With regard to the structure of the table: - Non Life/Transition/Market sentiment/underwriting: add adverse selection, change in business with lack of data (e.g. electric cars) - Non Life/Transition/Reputation/Reputation: insurability issues following exclusions - Non Life/Physical/Chronic/Market: low interest rates - Life & Health/Transition/Policy/Strategic: fiscality on life insurance products • Life & Health/Transition/Market sentiment/underwriting: lapse, expense (pressure on costs following transparency) Risk of mortality and morbidity pricing not being adequate due to lack of data in a climate-changing environment. For instance increased mortality and illness due to short term weather events, rising sea levels, spread of illnesses typical for warmer climates or similar. • Life& Health/Transition/Legal risk: Risk of difficulties in changing investment strategies for existing customers to	a holistic view of the relevant types of climate change risks.

				more green strategies due to existing terms & conditions not containing mandate to change towards high level of green investments. • Life&Health/Transition /Technology/market risk: New pension products are arising with more green investment strategies. These products can contain new and more uncertain investment risks due to the investment in new business areas and also it can be necessary to invest in more illiquid assets where you need new competencies and risk management - Life & Health/Physical/Acute: Underwriting (lapse due to pandemic), Counterparty (reinsurance) Note: in addition to carbon intensive sectors, there is a transition risk on carbon intensive sectors dependent companies which are not able to transfer the cost increase in price. These investments are also at risk in a transition scenario but are more difficult to identify.	
107	UAB "SB Draudimas"	Q5	Yes	Examples of potential risks are clear, understandable, explained in detail.	Noted.
108	JBA Risk Management Limited	Q5	No	We have reviewed physical risks. - Consideration of secondary (and perhaps non-modelled perils) is important, as is an understanding of both acute and chronic risk. - Chronic market risk: suggest add that insurance becomes unaffordable at a greater proportion of properties because of (for example) increased regularity of flooding at many locations. - Acute credit risk: suggest add that due to frequent flooding, residential property may become less insurable over the term of a mortgage causing the gap between	Noted.

				insurers and lenders to widen.	
109	Moody's ESG Solutions	Q5	Yes	In addition, we believe that under transition risks/policy/financial, a reference to the significant level of investments/abatement spending might be needed, and the potential impact of investment and carbon taxes on earnings after taxes/investments would be beneficial. We also observe that in developed economies there is the risk that risk free interest rates need to be held low for longer in order to support investments and transitions. This would have implications for investment returns and insurers' liability valuations. In the physical risk section of annex 3, we have some specific suggestions: • We would suggest replacing the references to lightning and hailstorms with references to storms or cyclones (hurricanes/typhoons), as the connection between climate change and lightning/hail events is less clear than its connection to severe rain events/cyclones more broadly. • The annex could reference the potential increase in workers compensation claims particularly due to increased heat events which can increase the likelihood of error and resulting injury on the job. • References to decreasing river levels could more explicitly make the connection between water scarcity and business operations that rely on water for energy and cooling. • We would suggest including wildfires in the acute risks section for both annexes, noting that their market implications for real estate are similar to sea level rise (rendering entire areas uninsurable), and that wildfire smoke has significant long-lasting health impacts that	Noted.

				could lead to higher health insurance claims.	
110	Insurance Europe	Q5	Yes	Insurance Europe shares the view on the main climate change related risks and on the transmission channels laid down in the draft paper. Climate change can affect both sides of the balance sheet and, as EIOPA noted, it can materialise through established risk categories. Companies must be given the flexibility to determine what risks are relevant for them, which may include risks not reflected herein. Focusing on the examples, the industry also notes that: -With respect to life underwriting risk, most life insurers are exposed to both mortality and longevity risk. With respect to the effect of higher temperatures, the direction of change is not always clear as an increase of mortality due to heat waves may be (partly) compensated by the lower mortality thanks to milder winters. The combined effects of longevity and mortality and the combined effects of heat waves and milder winters depend on the exposures to longevity and mortality risk in different age groups. -Physical risks do not only affect the liabilities side of the balance sheet, but also items in the asset side (in addition to transition risk). -Apart from risks resulting from climate change, it is an essential part of the industry's strategy to monitor emerging risks, including wider environmental risk than pure climate risk. -EIOPA focuses on negative impact on the balance sheet, but items in Annexes 3 and 4 only describe changes in physical variables, and there might be counterbalancing arguments and some developments that could result in a more nuanced impact on the actual balance sheet risk from climate related events. EIOPA could consider:	Noted. See amendments in section 3. The examples should not be interpreted as an exhaustive list of transition and physical risks but rather as illustrations to enhance understanding of the broad range of potential risks posed by climate change. The mapping matrices included in Annex 3 and 4 could be of assistance in obtaining a holistic view of the relevant types of climate change risks.

				>The possibility for insurers to change terms and conditions and/or policy underwriting criteria which could include preventive measures for climate risks which could have a mitigating effect. >The impact of climate related developments can have an adaptation effect on underwriting risk and against changing weather-related events. For example, business owners who experienced weather related events in the past might have adopted resilient solutions. >The list of physical risks should be a general, non-binding, reference, since local effects may vary widely, sometimes even leading to a reduction in specific acute risks in some areas. Furthermore, only risks for which there is a clear scientific consensus should be included.	
111	CRO Forum	Q5	Yes	The reference to those examples is noted, but companies must be given the flexibility to determine what risks are relevant for them, which may include risks not reflected therein. In addition, annex 3 and annex 4 mention that climate change is having an impact on the frequency and concentration of extreme weather events and natural disasters. In this context, it is unclear what is meant by "concentration of extreme weather events". We would propose to use the terms frequency and severity unless the intention was to refer to spatial and temporal clustering of events. If the intention was the latter, we would like to point out that current science would not support such a generalized statement (Annex 2.5) except maybe for very specific perils and regions. Furthermore, annex 3 & annex 4 make a link between pandemic risks and climate change without evidence	Noted.

				supporting it. It is noted that in its most recent report published on the 23rd of November 2020, the FSB made no reference to pandemic when assessing the implications of climate change for financial stability . We suggest removing the example of "pandemic" as it is not a direct climate-related physical risk.	
112	Insurance Ireland	Q5	Yes	Insurance Ireland agrees that the main climate change related risks and on the transmission channels laid down in the draft paper. Climate change can affect both sides of the balance sheet and, as EIOPA noticed, they can materialise through established risk categories. In addition, the industry notes that CAs will receive ORSAs from all insurers under their supervision, which means that they can become aware of emerging and systemic risks that are relevant also to other insurers. In that case, CAs should play an active role. Focusing on the examples, the industry also notes that: • With respect to life underwriting risk, most life insurers are exposed to both mortality and longevity risk. With respect to the effect of higher temperature, the direction of change is not always clear as an increase of mortality due to heat waves may be (partly) compensated by the lower mortality thanks to milder winters. The combined effects of longevity and mortality and the combined effects of heat waves and milder winters depend on the exposures to longevity and mortality risk in different age groups. • Physical risks do not only affect the liabilities side of the balance sheet, but also items in the asset side (in addition to transition risk). • EIOPA focuses on negative impact on the balance sheet, but there might be counterbalancing arguments and some developments can have a more nuanced impact on the	Noted.

				actual risk experienced by the climate related events. EIOPA could consider: - The possibility for insurers to change terms and conditions and/or policy underwriting criteria which could include preventive measures for climate risks which could have a mitigating effect. - The impact of climate related developments can have an adaptation effect on underwriting risk and against new climate related events. For example, business owners who experienced climate related events in the past might have adopted resilient solutions. • The examples that EIOPA included in the table are mainly linked to rising temperatures, but insurers should examine all (emerging) risks they are exposed to. The industry wonders to what extent other risk examples of transition and physical risks should be considered by the industry, eg: - Acidification of the oceans could destroy marine life and threaten fishing industry and food supply. - Large scale deforestation and intensive agriculture practices could destroy biodiversity threatening food supply. - Exhaustion of earth's resources (like rare metals, phosphate, fresh water, and so on) could end complete industries and again, severely damage food supply.	
113	Swiss Re	Q5	Yes	Swiss Re believes that companies must be given the flexibility to determine what risks are relevant for them, which may include risks not reflected herein. In addition, annex 3 and annex 4 mention that climate	Noted.

				change is having an impact on the frequency and concentration of extreme weather events and natural disasters. In this context, it is unclear what is meant by "concentration of extreme weather events". We would propose to use the terms frequency and severity unless the intention was to refer to spatial and temporal clustering of events. If the intention was the latter, we would like to point out that current science would not support such a generalized statement (Annex 2.5) except maybe for very specific perils and regions. Furthermore, annex 3 & annex 4 provide the following example for a mapping between acute physical risk and market risk: "Climate change-related shocks, e.g. a pandemic, negatively affecting the economy and the financial system and depressing interest rates and asset values." The example ("pandemic") should be deleted as it is not a direct climate-related physical risk. The same applies to several pandemic-related references (e.g. "Higher frequency and severity of epidemics and pandemics due to climate change lead to higher nonlife insurance claims, e.g. business interruption and credit insurance." or "Travel insurance undertakings face a severe market contraction following a climate change-induced pandemic."). The link between epidemics/pandemics and climate change is not yet established sufficiently and is rather due to indirect human/environmental impacts (e.g. stressed ecosystems) than a direct consequence of climate change. We therefore recommend deleting references that link pandemic risks with climate change.	
121	EIOPA Insurance and Reinsurance	Q6	No	The IRSG believes that the specification of fixed scenarios is not appropriate for the ORSA. The ORSA should remain company specific and undertakings should retain full	Noted. In line with the

	Stakeholder Group			flexibility to reflect differences in time horizons, company specificities and risk exposure. Prescriptive standardised scenarios are contrary to the principle of the ORSA that should reflect the company's own risk analysis. Each company is better placed to choose the most appropriate scenarios and related specifications. Depending on the risk exposure, a given proposed scenario might not be relevant while another set of scenarios might be more useful, e.g. qualitative scenarios based on social and political reactions to climate change in a specific region where the insurer manages some strategic business. This considered, suggestions on scenarios that could be used are welcome. This will help achieve a common view on how to deal with climate risks and to have higher quality of the scenario assessment. In this respect, it is key not to multiply the number of quantitative scenarios to be used and, given the great uncertainties in this area, to keep them simple and based on high-level principles that allow for flexibility. Supervisors should focus on such general principles rather than on a prescribed standardised set of long-term scenarios with a prescribed time span. Climate change is only one of many risks to be dealt with. In fact, insurers should investigate, and stress test all major risks. Anyway, more background material and tools to help insurers to build their own customized scenarios might be useful, in case climate change risks are seen material. Some insurers might have a lack of resources to take the needed step to include such new scenarios into their analysis and could benefit of such a help. Also some benchmark scenarios could be provided for this use but the number of scenarios to explore should be very limited on the one hand because of the already very disputable nature of the alleged content of the scenarios and aligned	Commission's guidelines on non-financial reporting, it should be expected that undertakings subject material climate change risks to at least two long-term climate scenarios, where appropriate: a climate change risk scenario where the global temperature increase remains below 2°C, preferably no more than 1.5°C, in line with the EU commitments, and a climate change risk scenario where the global temperature increase exceeds 2°C, as indicated in paragraph 3.18 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA. The aim of the scenario analysis is to assess the resilience and robustness of the undertaking's business strategies in the context of climate change risks over time.

				with some widely spread consensus such as the Paris Agreement or the Intergovernmental Panel on Climate Change (IPCC) reflections. These kind of benchmark scenarios would form the basis of explorations at macro prudential stress test exercise level. We also underline that it is paramount that the nature and horizons of climate investigations be left to insurance undertakings decisions, definitions and choices at micro prudential ORSA exercise level. Finally, it is also essential for a specific insurer to have the tools and risk management processes in place that enable continuous monitoring. Also, it's important to update the risk drivers that impacts its own risk profile, irrelevant of whether these evolutions can or cannot be directly related to a specific defined level of climate change in temperature. We believe this pragmatic approach is most relevant and useful as well as reflective of the way risks are adequately managed rather than running high level views of climate changes in temperature that still fall far short of what is needed to model an impact at the level of granularity of an insurance undertakings risk drivers and dependencies.	Paragraph 3.21 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA provides that undertakings may develop their own climate scenarios or build, on existing ones, depending on the undertakings' expertise and resources.
122	FERMA (Federation of European Risk Management Associations)	Q6	No	Again, the answer to this question is prefaced by our view that any action in this area should be proportionate. If the two scenarios are distinguished as above that seems to make sense, but it should also be afforded a concrete timeline and it will require some work to figure out what timeline is feasible.	Noted. Pursuant to paragraph 2.7. of the Opinion on the supervision of the use of climate change risk scenarios in ORSA, CAs should implement the expectations applying the risk-based and proportionate approach envisaged by the Opinion.

					See also resolution to comment 121.
123	AMICE	Q6	No	We reiterate our answer to question 3 and underline that it is paramount that the nature and horizons of climate change investigations be left to the undertaking´ decisions, definitions and choices at micro prudential ORSA level. What is essential for a specific insurer is to have the tools and risk management processes in place that enable a continuous monitoring and update of the evolutions and trends in the risk drivers' behaviors that impact its own risk profile, irrelevant of whether these evolutions can or cannot be directly related to a specific defined level of climate change in temperature. We believe that this pragmatic approach is most relevant and useful as well as reflective of the way risks are adequately managed rather than running high level views of climate changes in temperature that still fall far short of what is needed to model an impact at the level of granularity of an insurance undertaking´s risk driver and dependencies. We also have this concern that climate change risks are sometimes confused with broader green concepts. Some scenarios may be provided to illustrate some aspects of climate change and may be used as benchmark or constitute best practice but they should not be standardized for all companies. The number of scenarios to explore should be very limited on the one hand because of the already very disputable nature of the alleged content of the scenarios and aligned with some widely spread consensus such as the Paris Agreement or IPCC reflexions. This kind of benchmark scenarios could form the basis of explorations at macroprudential stress test exercise level. Prescriptive standardized scenarios are contrary to the principle that the ORSA should reflect the company's own	Noted. Paragraph 3.21 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA provides that undertakings may develop their own climate scenarios or build, on existing ones, depending on the undertakings' expertise and resources. See also resolution to comment 121.

				risk analysis. Each company is better placed to choose the most appropriate scenarios and related specifications.	
124	AIR Worldwide	Q6		AIR agrees that it would be beneficial to explore the sensitivities of a forward-looking risk assessment. Considering different climate path-ways is probably the obvious sensitivity analysis that can be done (and if done should also consider a "business as usual" scenario). However, other (socioeconomic) changes could have impacts of similar magnitude. Exploring those sensitivities might not serve as a "call to action" on GHG emission reductions but still might be equally valid and important.	Agreed. The aim of the scenario analysis is to assess the resilience and robustness of the undertaking's business strategies in the context of climate change risks over time. See resolution to comment 121.
125	Unipol Group S.p.A.	Q6	Yes	We think that linking climate change stress test to specific scenarios are a pre-requisite in order to ensure the adequacy of the exercise with respect to the state of the art in science related to the topic. In our opinion the analysis of at least two scenarios (increase of temperature below and above 2°C) to be included in ORSA is adequacy to represent the possible pathway of climate change.	Agreed. Paragraph 3.21 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA provides that undertakings may develop their own climate scenarios or build, on existing ones, depending on the undertakings' expertise and resources.
126	PIU - Polish Chamber of Insurance	Q6	No	In PIU opinion it is important to try to align the approaches of EIOPA and the Network for Greening the Financial System where relevant. Two scenarios proposed by EIOPA	Noted. Pursuant paragraph

				should serve rather as an example, as ORSA should remain insurer's own assessment. Moreover the scenarios should be rather treated as a certain mindset due to insurers' difficulties in translating climate terms into insurance and financial measures. It needs to be highlight that undertakings should include the climate scenarios in ORSA only if they are exposed to material climate change risks.	2.7. of the Opinion on the supervision of the use of climate change risk scenarios in ORSA, CAs should implement the expectations applying the risk-based and proportionate approach envisaged by the Opinion. Under paragraph 3.1, 3.8 and 3.14 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA, CAs should expect undertakings to identify material climate change risks for their business, and expect undertakings, which conclude that climate change is not a material risk, to provide an explanation as to how that conclusion has been reached. Paragraph 3.21 provides possibility for undertakings to develop their own climate scenarios or build, to a more or

					lesser extent, on existing ones, depending on the undertakings' expertise and resources. A number of climate change scenarios containing pathways for physical and transition risks are publicly available. See also resolution to comment 121.
127	EY	Q6	Yes	It is unclear that global responses to climate change will be enough to limit global temperatures to well below 2ºC, even if global carbon budgets are not breached. As such, firms may usefully carry out analyses of at least 2 scenarios (and ideally more) to understand the implications of different scenarios on their business models, so that they can prepare appropriate management actions. Part of this would include developing a 'best estimate' or baseline view of what is likely to happen, to plot a course through the changes that will occur and provide a reference framework to develop signposts allowing them to identify which paths are emerging. Related to this is the very high level of model risk inherent in modelling a complex adaptive system such as the Earth's climate and, therefore, the probabilistic nature of climate scenarios. This complexity may be well appreciated in a scientific context but is not may not be so well recognised on translation into financial models. As such the consequence of the model parsimony and simplifying assumptions are that there is a wide distribution of	Noted. Paragraph 3.21 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA provides that undertakings may develop their own climate scenarios or build, on existing ones, depending on the undertakings' expertise and resources. See also resolution to comment 121.

				possible climate impacts, both in timing and severity. This increases the risk of modelled results understating the potential impacts of climate change and thus giving false reassurance.	
128	Partnership for Carbon Accounting Financials	Q6	Yes	It is essential that long-term scenario analysis distinguishes between at least two scenarios because there is still variability in scenarios where the global temperature increase exceeds 2°C, in both absolute temperature and trajectory of increase. In absolute terms, this distinction is important. A long-term temperature increase of 2-3°C, however detrimental, is less harmful than a long-term temperature increase of 3-4°C. Both will bring challenges, but preparation for the lower range of temperature rise is likely to be insufficient for the higher one. The rate at which the planet warms is critical for scenario analysis as well. It is already established that the planet is not warming evenly. The uneven distribution of climate impacts introduces another complex dimension which should be considered in scenario analysis. Different temperature trajectories also tell different stories. The uncertainty of the rate of acceleration of global temperature increase means that two scenarios which reach +3°C by 2050 can experience different climate impacts at different moments. In brief, the immense variation in possible scenarios means that an undertaking cannot achieve an adequate understanding of their future risks or adequately prepare for them based on only one, or even two scenarios.	Agreed. Paragraph 3.21 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA provides that undertakings may develop their own climate scenarios or build, on existing ones, depending on the undertakings' expertise and resources.
129	German Insurance	Q6	No	We do not consider the specification of fixed scenarios to be beneficial as the ORSA should remain company specific.	Noted.

	Association			For some – but not all – undertakings it may be necessary or reasonable to apply scenarios as suggested. If there is no substantial financial risk even in a worst-case scenario determined on a company specific basis, it should be unnecessary to assess other scenarios. See also answers to Q1, Q2 and Q3. It should be acknowledged that models for projecting climate change are predominantly academic in character. These models differ significantly in the outputs of their results. This means there is a significant uncertainty. Operational results would be of low meaning, because missing data leads to low quality models. Additionally, the outputs of these models as changes in temperatures and precipitation cannot be directly transferred to expected claims, underwriting strategies etc. Yet another aspect is the developing standards for construction. An increase of extreme weather events does not necessarily correlate to an increase in claims because of prevention and adaption measures. In short, current models are not yet sufficiently developed to be used in such a way intended by EIOPA.	Pursuant paragraph 2.7. of the Opinion on the supervision of the use of climate change risk scenarios in ORSA, CAs should implement the expectations applying the risk-based and proportionate approach envisaged by the Opinion. Paragraph 3.21 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA provides that undertakings may develop their own climate scenarios or build, on existing ones, depending on the undertakings' expertise and resources. See also resolution to comment 121.
130	Actuarial Association of Europe	Q6	Yes	From today's perspective, a scenario where average temperature increases remain no more than 1.5°C above the current average (very strongly declining emissions) may however be questionable. Anyway, it is important to have at least two scenarios in order to be able to measure effects and demonstrate the uncertainty to decisions makers. It enables the assessment of the sensitivity of (re)insurance undertakings to different levels of trends related to climate change. It is important to note the high	Agreed. See also resolution to comment 121.

				level of uncertainty of the long term scenarios. The absolute numerical results of individual long term scenarios should be considered with caution and sensitivities to scenarios / "what if" scenarios should be considered. Ideally scenarios should encompass both physical and transition risk. It is useful to distinguish between scenarios that are dominated by transition risks (e.g. disorderly transition to keep average global temperature increase below 2°C perhaps with lower physical risks) and those dominated by physical risks (e.g. "hot house world" in the NGFS scenario landscape but perhaps where the transition risks are less impactful). A minimum requirement should be provided, both to enable smaller undertakings to reduce the effort spent on preparing the scenarios, and to ensure a meaningful comparison between undertakings. This requirement could evolve as expertise on climate change risk develops in the market." In practice many companies will likely draw from the NGFS (Network for Greening the Financial System) and IPCC (UN Intergovernmental Panel on Climate Change) scenarios given their global scope – so these standardised scenarios are a useful starting point. It is important to clearly distinguish the effect of an abrupt transition scenario versus no action (Business-as-usual). The IPCC 5th assessment report distinguish the two following opposite scenarios: - the "strong mitigation scenario" where t° increase is likely to not exceed 2°C -> transition risk scenario -> this clearly corresponds to the 1st scenario proposed by EIOPA	

				- the "business-as-usual scenario", where t° increase as likely as not to exceed 4°C -> physical risk scenario -> this does not clearly correspond to the 1st scenario proposed by EIOPA. For the purposes of the ORSA, entities should be free to define their own scenarios depending on their risk profile and to explore the risks and opportunities of each. Entities could also consider how the chosen scenarios are derived e.g. reflecting supra-governmental commitments including those of the EU. The emission trends chosen should be representative concentration pathways defined by appropriate experts and it could be appropriate to describe more granular effects (frequency and severity of weather-related events at geographical level) to ensure consistency. We would welcome that each scenario includes a more specific description on expected impacts at an appropriate granular level on both assets and liabilities. This would allow insurers to gain experience and ensure a level playing field. Whilst generally a range of scenarios reflecting different severities is useful, careful narrative is required (when presenting pathways and outcomes associated with particular temperature labels e.g. <1.5 degree or >2.0 degree) to ensure that users are aware of the limitations of the projections and appreciate the uncertainties involved. Given the very long term nature of the scenarios being considered and the related uncertainties, it may be that users of the output find themselves lacking a practical frame of reference. In this light a kind of baseline showing no climate change might help to highlight the impacts of climate change on the firm, for instance in communications to the Board/senior management and other key stakeholders – however care would need to be taken	

				regarding the narrative to ensure this 'no climate change' comparator is understood to be artificial and not akin to a 'base' ORSA projection scenario or a 'do nothing' approach.	
131	UAB "SB Draudimas"	Q6	No	There is a lack of methodology how for evaluating these scenarios. Furthermore, our company is located in such geographical location where we do not expect significant losses due to the effects of such temperatures. It should also be noted that several scenario options are more relevant for non-life insurance companies. If companies are expected to analyze several scenarios, we would very much expect a clear distinction between their definition and the identification of possible consequences in both cases.	Noted. Pursuant to 3.1, 3.8 and 3.14. of the Opinion on the supervision of the use of climate change risk scenarios in ORSA, CAs should expect undertakings to identify material climate change risks for their business, and expect undertakings, which conclude that climate change is not a material risk, to provide an explanation as to how that conclusion has been reached. See also resolution to comment 121.
132	JBA Risk Management Limited	Q6	Yes	We agree with 2 scenarios, but "anything above" 2 degrees is vague and could result in anything between 2-8 degrees being modelled, giving a very large range of results and variability between undertakings, and adding a further layer of uncertainty into the process, regarding the choice of scenario to model.	Noted. See also resolution to comment 121.

				We suggest specifying an RCP scenario for both. This will aid compatibility with practice in other industries and government and open up a wealth of climate projection work for use by undertakings. What approach is planned regarding guidance for modelling adaptation measures (e.g. a firm might make an assumption that flood defence improvements will keep pace with climate change, hence no change to exposure – is this ok?). One option is to consider modelling with and without adaption measures.	
133	Moody's ESG Solutions	Q6	Yes	While we agree with a minimum of two scenarios for long-term analysis, we observe that just two scenarios could be insufficient. Furthermore, we feel that the two proposed scenarios are under differentiated. If the ORSA process is to ensure understanding of risks, it could look at more extreme pathways, particularly on the physical risks/hot house. We observe that the addition of a third scenario would be helpful and aligns with the NGFS reference scenarios outlined in Annex 6, which includes an orderly and disorderly scenario, both meeting the 2°C limit by 2070, and a third hot house scenario with temperature rise above 3°C during that time period.	Noted. Under paragraph 3.18 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA, in line with the Commission's guidelines on non-financial reporting, CAs should expect undertakings to subject material climate change risks to at least two long-term climate scenarios, where appropriate: a climate change risk scenario where the global temperature increase remains below 2°C, preferably no more than 1.5°C, in line with the EU commitments,

					and a climate change risk scenario where the global temperature increase exceeds 2°C. According to paragraph 3.21 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA undertakings may develop their own climate scenarios or build, to a more or lesser extent, on existing ones, depending on the undertakings' expertise and resources. A number of climate change scenarios containing pathways for physical and transition risks are publicly available.
134	Insurance Europe	Q6	No	The industry does not consider the specification of fixed scenarios to be appropriate, as the ORSA should remain company specific. The industry notes that: -Undertakings need to maintain full flexibility to reflect differences in time horizons, company specificities and risk exposure (the measurement and quantification of these risks is necessary only when these effects are financially material for the undertaking, which depends on company-specific elements). It is more natural for each company to	Noted. Pursuant paragraph 2.7. of the Opinion on the supervision of the use of climate change risk scenarios in ORSA, CAs should implement the expectations applying the risk-based and proportionate approach envisaged by

				choose the most appropriate scenarios and related specifications according to its own company specificities. -Climate change scenario analysis should be included in the ORSA only if the insurer considers climate risks as material. A standardised set of quantitative scenarios should not become an impediment to carry out a company specific ORSA and scenarios should remain relevant for each company's risk profile. -Prescriptive scenarios are contrary to the principle of the ORSA that should reflect the company's own risk analysis. Depending on the risk exposure, a given proposed scenario might not be relevant while another set of scenarios might be more useful, eg qualitative scenarios based on social and political reactions to climate change in a specific region where the insurer run some strategic business. -Considering the objective of the ORSA, these specific scenarios should not be regulated by the authorities. While the insurance industry acknowledges that proposed scenarios are consistent with the Paris Agreement on climate change, supervisors should focus on general principles rather than on a prescribed standardised set of long-term scenarios with a prescribed time span. In practice, while many companies will use the NGFS and IPCC scenarios given their global scope and ongoing interest, these standardised scenarios should be useful guidance rather than a fixed set of prescriptive conditions. This considered, the industry welcomes suggestions on scenarios that could be used and on the transposition of climatic scenarios into economic quantitative scenarios. This will help achieve a common view on how to deal with climate risks and to have higher quality of the scenario assessment. In this respect, it is key not to multiply the number of quantitative scenarios to be used and, given the	the Opinion. Pursuant to paragraph 3.1, 3.8 and 3.14. of the Opinion on the supervision of the use of climate change risk scenarios in ORSA, CAs should expect undertakings to identify material climate change risks for their business, and expect undertakings, which conclude that climate change is not a material risk, to provide an explanation as to how that conclusion has been reached. According to paragraph 3.21 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA undertakings may develop their own climate scenarios or build, to a more or lesser extent, on existing ones, depending on the undertakings' expertise and resources. A number of climate

				great uncertainties in this area, to keep them simple and based on high-level principles that allow for flexibility. Climate change is only one of many risks to be dealt with. In fact, insurers should investigate, and stress test all major risks. The industry has the following comments on scenarios suggested by EIOPA: -Models for projecting climate change are predominantly academic in character. These models differ significantly in the outputs of their results due to missing data and are of limited applicability to assess the effects of climate change on expected claims, underwriting strategies etc. Prevention and adaption measures are also hard to factor in. In short, current models are often not yet sufficiently developed to be used as intended by EIOPA. (See also answers to Q1, Q2 and Q3.) -Despite the importance of forward-looking analysis, historical assessment should not be overlooked. Looking backwards can also provide valuable insights especially for those climate events which do occur on a more regular basis. For example, the claim pattern from an event several years ago could provide insights in adaptation of behaviour regarding new climate related events, changes in building codes/regulation, etc. -The translation of different concentration pathways to effects on different perils is not always clear. Co-operation between insurers via the national associations and the national meteorological institutes can be helpful. -It is essential that the scenarios are undertaking-specific and that uniform scenarios which focus on temperature are not mandatory. For example, the speed of change might be an even more relevant risk. If actors have time to adapt,	change scenarios containing pathways for physical and transition risks are publicly available. See also resolution to comment 121.

				then risk may remain relatively low, though some adaptions take a lot of time and ideas about long term trends and expectations have added value. However, if change comes suddenly then the shock might have devastating consequences to the economy.	
135	CRO Forum	Q6	Yes	We agree that the mentioned pathways due to the political context could be part of the broader considerations of the impact of climate change in the ORSA, but not in the sense of detailed prescribed scenarios that need to be calculated and quantified. Insurers should make such translations into relevant scenarios themselves. While in practice insurers may leverage on benchmark scenarios provided e.g. by the NGFS, they should have the full flexibility to consider the details and characteristics of our own scenarios where deemed more appropriate in the context of their business and risk profile and. For the purpose of the ORSA, entities should continue to have the flexibility to define their own scenarios depending on their risk profile and suitable for their modelling. Therefore, in practice, we expect many companies to review the scenarios provided by the IPCC and the NGFS at least in a qualitative manner, we don't see the justifications nor the benefits to prejudge and standardise what would be relevant for the firms. It is essential not to transform those scenario analyses into a pure compliance exercise. The Opinion should therefore refer to those 2 scenarios, or rather potential "pathways", only as a good practice to consider in the broader analysis and not a mandatory.	Noted. See also resolution to comment 121.
136	Insurance Ireland	Q6	Yes	We agree, the proposed two minimum scenarios seem consistent with the Paris Agreement on climate change. Insurance Ireland supports a limited set of scenarios that should be kept bold and simple. However, the industry	Noted. See also resolution to comment 121.

				stresses that scenarios should remain relevant for each company's risk profile. Therefore, climate change scenario analysis should be included in the ORSA only if the insurer considers climate risks as material. Undertakings need to maintain full flexibility to reflect differences in time horizons and company specificities (the measurement and quantification of these risks is necessary only when these effects are financially material for the undertaking, which depends on company-specific strategy). Insurers note that being too prescriptive on the choice of scenarios is contrary to the principle of the ORSA that should reflect the company's own risk analysis. Considering the objective of the ORSA, specific scenarios should not be regulated by the authorities but rather be decided by each undertaking. For example, this means that a given proposed scenario might not be relevant while another set of scenarios might be more useful, eg qualitative scenarios based on social and political reactions to climate change in a specific region where the insurer run some strategic business. When it comes to analyse the effect of standardized scenarios, it is better to use the EIOPA stress-testing covering the whole EU insurance market. The industry welcomes suggestions on scenarios that could be used and on the transposition of climatic scenarios into economic quantitative scenarios. This will help achieve a common vie on how to deal with climate risks and to have higher quality of the scenario assessment. In this respect, it is key not to multiply the number of quantitative scenarios to be used and, given the great uncertainties in this area, to keep them simple and based on high-level principles that allow for flexibility. Climate change is only one of many risks to be dealt with. In fact, insurers should	

				investigate, and stress test all major risks. This said, the industry has the following comments on scenarios suggested by EIOPA: • Despite the importance of forward-looking analysis, historical assessment should not be overlooked. Looking backwards can also provide valuable insights especially for those climate events which do occur on a more regular basis. For example, the claim pattern from an event several years ago could provide insights in adaptation of behaviour regarding new climate related events, changes in building codes/regulation, etc. • In order to make the climate scenario analysis useful one of the scenarios should be 2°C and higher to reflect the long-term time horizon. A scenario below 2°C is very unlikely according to some publications, while RCP 4.5 and RCP 8.5 are more likely scenarios (RCP 4.5 will probably lead to a temperature increase between 2 and 4°C; RCP 8.5 is the worst case scenario with "business as usual scenario" and no reduction in emissions (eg see https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6070153/) • One scenario should reflect the shorter-term horizon with market disturbance due to transitional measures. For example, if it fits the specific undertaking's risk profile, the following three scenarios could be used: - orderly transition – smooth transition that starts immediately in order to align with the Paris agreement; - disorderly transition – delayed transitional measures that eventually leads to sudden transition with panic liked policy changes, taxes etc. that disrupts the whole economy in order to align with the Paris agreement - business as usual (RCP 8,5)	

				• Reference to IPCC RCP scenarios would be useful as they are very common in the academic literature on climate change (eg academic papers for scenarios on hail are often presented as RCP scenarios). • The translation of different concentration pathways to effects on different perils is not always clear. Co-operation between insurers via the national associations and the national meteorological institutes can be helpful. • The temperature should not be the only risk driver to base scenarios on. For example, the speed of change might be an even more relevant risk. If actors have time to adapt, then risk may remain relatively low, though some adaptions take a lot of time and ideas about long term trends and expectations have added value. However, if change comes suddenly then the shock might have devastating consequences to the economy.	
137	Swiss Re	Q6	Yes	Companies should be able to use scenarios that are most appropriate for their risk profile under their ORSA. None of the external scenarios will fulfil all internal aspirations in this respect. However, in practice we expect many companies will review the NGFS and IPCC scenarios given their global scope and ongoing interest, but we see these standardised scenarios as a useful starting point rather than a fixed set of conditions. It is important to distinguish between scenarios that are dominated by transition risks (e.g. disorderly transition to keep global temperature increase below 2°C) and scenarios that are dominated by physical risks due to a lack of climate-change mitigation (e.g. "hot house world" in NGFS scenario landscape). Therefore we would see these scenarios rather as a good practice but should not be mandatory.	Agreed. According to paragraph 3.21 of the Opinion on the supervision of the use of climate change risk scenarios in ORSA undertakings may develop their own climate scenarios or build, to a more or lesser extent, on existing ones, depending on the undertakings' expertise and resources. A number of climate

					change scenarios containing pathways for physical and transition risks are publicly available.
145	EIOPA Insurance and Reinsurance Stakeholder Group	Q7	Yes	We find that this is definitively true for all risks and remains valid for Climate risk, where proper understanding and modelling of risks is needed. We would emphasize the six factors that needs to be taken carefully into account in the scenario work and that it will require both information and new skills to do it properly: 1. Non-linear path. The phenomenon is non-linear and should be dealt to allow this 2. Constant adaptation. Both economies and the market will constantly adapt into the change which will make the transition process hard or even impossible to properly estimate 3. Short & Long term decisions together. Investor having both short and long term KPI's need to balance between these and making decisions constantly, which will obviously effect on any management action assumption 4. Model risk. The attempt to quantify the relationship between climate change and the markets has a number of obstacles and contains a material model risk in it 5. Qualitative support. A holistic qualitative analysis is needed to complement any quantitative result and make it understandable or justified. 6. It is possible to use climate risk scenarios to help the	Noted/agreed. As mentioned, proper scenario analysis should include points 1-6, however it is important to incite undertakings to reflect about climate-related risk without implying that such a reflection must be founded on complex non-linear modeling with various interactions. Agree that qualitative information can be more revealing of insurers' vision than some hard quantitative results, although it is also important to impose a common analytical framework with clear parameters.

				decision making but the earlier aspects are fundamental to keep in mind An informative and practical example of a multi-period strategic asset allocation process under climate change analysis can be found from UN Principles for Responsible Investments I 8/2020 . There are also many uncertainties on the way climate change will impact economic and social systems and the interconnection between sectors and sub-sectors. It is therefore difficult to translate such impacts through the macroeconomic and financial hypothesis and shocks commonly used in traditional ORSA scenario analyses. It does not only depend on experience and technical capacity but also on scientific consensus on impacts and clear political trajectories given by public authorities. Also, undertaking already take into account climate change risk through other tools. In France for example, there is a stress-testing like exercise proposed to the market by the supervisor that helps some insurers to gain experience and build technical capacities. We would also bring out that, this process of undertakings gaining experience and expanding the scope of their analysis and technical know-how can get even faster thanks to regulators. In fact, regulators play a major role by publishing more and better data over time as well as developing technical information to support the evolution of the undertakings' models. Finally, we see that the industry is building capabilities on assessing the impact of climate-related risks in their risk management processes, and many initiatives should help in providing good practices and a better understanding of the specific sensitivity of the insurance sector to climate risks. A valuable first step is to consider 'what-if'	

				assessments of events that can be defined, but whose probability and timing of occurrence are not known. Such specific and limited scenarios may be at least as useful as holistic long-term assessments. Especially qualitative assessments explaining and analysing the relevance of high-level trends and general developments in combination with suitable "what if" analyses can provide more powerful results in terms of communication and business acceptance than over parameterized theoretical scenarios. We caution against moving faster than data vendors and modelling capabilities. While there are providers who support e.g., a 1.5-degree scenario today, the data quality is not high, and modelling relies on a number of key assumptions and is subject to a number of weaknesses and limitations. It is taken for granted, but the Opinion would gain in clarifying the point, that no long-term projection should be considered as a forecast or prediction even as technical capabilities evolve.	
146	FERMA (Federation of European Risk Management Associations)	Q7	Yes	Yes, with the condition again that this is based on a Proportionate approach to undertakings. A captive reinsurers business, for instance, is less likely to change in the future than say that of a large primarily property insurer. This vast difference would need to be reflected in supervision. However, as a more general comment, it would be prudent risk management to revise and evolve modelling as time goes on and more information becomes available.	Noted. The reasoning put forth in the Opinion, however, is that the climate change poses an existential threat to the whole industry, regardless of the precise nature of its activities. While a firm's exposure to certain transition or physical risks may not change through time, the tools/methodologies used in the analysis can nonetheless

					evolve.
147	AMICE	Q7	Yes	It is indeed reasonable to assume that scope, depth and methodologies of undertakings' quantitative analyses of climate change risks may evolve over time. We agree that the capabilities to analyse climate scenarios will increase in the future. A lot of research is done and will be done in the future by universities, meteorological institutions and commercial modelling companies. This will support the analysis of the impact of climate change on underwriting risk. On the asset side the difficulty remains in that expectations are immediately reflected in the prices. The asset prices and implied volatilities will adapt to new insights. A shift to low carbon investments by all institutional investors can create systemic risk. It is also worthwhile reiterating as stated under our answer to question 4 that the risk management due processes that insurers have in place already allow them to capture what is needed to inform key management decisions and run insurance undertakings in a safe and adequate manner.	Noted. Calibrating current expectations in asset model pricing is indeed a central methodological problem to climate stress-testing portfolios. Regarding current risk management processes, a EIOPA questionnaire documented the general lack of widespread reflection on long-term processes linked to climate change. In general, certain climate-related risks (such as asset price shocks) may fall within typical risk management practices, although a longer-term reflection linked to concrete climate scenarios is far from universal.
148	AIR Worldwide	Q7		AIR agrees that tools and methods for climate change risk assessment are evolving and market participants still need time build their capabilities.	Noted.
149	Unipol Group S.p.A.	Q7	Yes	In our opinion, quantitative analyses of climate change risks should be expected to evolve in particural with reference to translation of transition or climate related pathway into asset prices impacts or physical impacts.	Noted.

				Furthermore, methodologies to be applied for long term balance sheet projections are expected to evolve before applying long term scenario analysis.	
150	PIU - Polish Chamber of Insurance	Q7	Yes		
151	EY	Q7	Yes	Evolution over time is unavoidable, for 3 main reasons: - scope of available data is expected to expand over time - economic and physical environment is expected to change over time - to consider continuous improvement, as methodologies for translating physical events into economic impacts become more mature In this context, it will be key for insurers to: - define key principles that will provide a more enduring framework for consideration as a context within which to evolve the distinct processes, methodologies and outcomes - demonstrate that evolutions to the methods are adequate, justified and that they do allow more accurate risk modelling - adequately document and monitor changes to methodologies over time, in order to keep consistency	Noted/agreed. EIOPA indeed seeks to harmonise the "key principles" mentioned in this comment to avoid diverging practices, while still leaving a certain margin to undertakings to adapt them to their business through time.
152	Partnership for Carbon Accounting Financials	Q7	Yes	Yes, they should be expected to evolve. It would be imprudent to bind oneself needlessly to a set of methodologies which may be later deemed dated or insufficient to analyze something as dynamic as a changing climate. Improvements in technology and other resources should be considered to the greatest extent possible to have the best and most up-to-date understanding of	Noted/agreed.

				climate risks. We would expect that stakeholders would prefer this approach as well.	
153	German Insurance Association	Q7	Yes	It is usual practice for undertakings to evolve their risk management. Thus, no further requirements are needed. Since small and medium sized undertakings do not have the resources and the required data for the development of such complex analysis as requested by EIOPA reinsurance companies, pools of insurers or associations could support carrying out this task	Noted/mostly agreed. EIOPA is conscious of the heterogeneity in terms of modeling capabilities across undertakings; in the future we hope to provide some common tools (data, projections, modeling, etc) which can be easily used by all insurers to facilitate (and harmonize) their reflections on the subject.
154	Actuarial Association of Europe	Q7	Yes	It is necessary to allow for an evolvement in climate change risk assessment. The Solvency II experience has shown this is a complex exercise. Objective and hence nature of this assessment is different from the Solvency II prudential projections. (Re)insurance undertakings are likely to develop tools that project risk profile / KRI / balance sheet over long time horizon. These tools will also include management actions over a long term horizon. The sophistication will evolve over time as the level of information and expertise improves. Although all firms will likely consider the impact of climate change-related risks in their risk management processes, the degree of sophistication etc. should depend on the materiality of the risks for individual firms. A first step could be incorporation of more 'what-if' analysis, to inform impact and corresponding management actions. As an emerging risk, the practices should evolve in line	Noted/partly agreed. The nature of an undertaking should influence the way in which they reflect about climate change risks, not the extent. As mentioned above, EIOPA seeks to make data and tools available to undertakings which facilitate such long-term and complex reflection.

				with factors such as the latest climate, legal, technological developments and in line with Group strategy, market best practice etc. A learning loop is expected with an iterative process improving each time as understanding builds. Also there is an education aspect for internal and external stakeholders. In the short term, care is needed to avoid spurious accuracy. Periodic consultation would be welcomed as best practice emerges, modelling techniques evolve, and further climate change impact assessments are published. Risk assessments will start with rather simple models that give a first impression and understanding. A further refinement will not only come naturally but will be required as best-practice evolves over time. This is evolutive given the learning curve, data collection & risk analysis, policy positions and technological break troughs. Evolution can be expected since for example tools and approaches that combine climate science with macro-economic and financial impacts are only beginning to emerge. A scarcity of data on which to base quantitative analysis was seen as a possible issue. It was expected that, either through public or private databases, the data/experience would increase over time to help address this issue. To develop technical capacity a close cooperation with relevant outsourcing partners as is the case today with catastrophe modelling (meteorological/geophysical models) could be considered. Evolution should be expected since for example tools and approaches that combine climate science with macro-economic and financial impacts are only beginning to emerge. However, this should not be used as a reason to do nothing quantitative for material risks or to limit the scope of qualitative analysis.	

				Iterative process expected: • Insurers are at the start of their data collection process. It might take several years to collect the required data. • TCFD reports from companies might be a useful source of information for insurers. Hopefully the availability of these report might increase in the future • Insurers can start with standard scenario, but might then be willing to make these scenarios more specific to their risk profile • segmentation into homogeneous group of transition risk exposure and the sensitivity calibration are iterative We suggest EIOPA to be supportive in ensuring a level playing field by supporting the development of consistent methodologies. Thereby capital requirements and rules being comparable across countries and undertakings.	
155	UAB "SB Draudimas"	Q7	Yes	The first such analysis will be based on many assumptions. With time, there will be significantly more necessary researches and data. The evolution of climate change and its possible consequences are also likely to be clearer. Companies will gain more experience and knowledge to perform such analysis.	Noted/agreed.
156	JBA Risk Management Limited	Q7	Yes	We anticipate a wide range of methods, data types becoming steadily more available initially (over the next 5 years) as many begin to develop data and tools. Climate change models, methodologies may not exist for some perils/regions at present, but we expect their availability to improve over time, along with processing power and data. Over time, there may be a convergence of approach within the market to more favourable ones (based on development capability, usability, market acceptance).	Noted/agreed.

				EIOPA may also need to develop its requirements over the same time span, as the future course of climate change unfolds, and as a widening range of perils become material to firms.	
157	Moody's ESG Solutions	Q7	Yes	While some insurers will have been analysing climate change for several years, others are relatively inexperienced. Given this variation, initial undertakings need to be realistic, and then evolve through time. We also note that the economic and financial modelling may not currently cover all of the risks which an insurer needs to quantify. There are several areas of uncertainty (climate sensitivities, the magnitude and exposure to physical damages, sensitivity to abatement spending and carbon taxes, economic losses & consequent financial impacts, socio economic losses) which are of concern/materiality to insurers, but which cannot be represented as standard risks. However, we acknowledge that there are continuous efforts to understand these new risks, which provide a groundwork for developing scenario analysis and integrating additional research as it becomes available. Technical capacity needs to be built out across the board.	Noted, partially agreed. The objective is not to represent all risks as standard, but to set a standard of expectations across all insurers regarding climate change reflections / tools needed to apprehend a new risk.
158	Insurance Europe	Q7	Yes	This is reasonable and relevant for all risks. Scope, depth and methodologies are expected to evolve as the undertakings expand the application of existing methodologies and new sophisticated methodologies are developed. The work by universities, meteorological institutions and commercial modelling companies will also allow to improve the risk analyses. This process of undertakings gaining experience and expanding the scope of their analysis and technical know-how can get even faster thanks to regulators. In fact, regulators play a major role by publishing more and better data over time as well as developing technical information	Noted/partially agreed. As mentioned above, the nature of an undertaking should influence the way in which they reflect about climate change risks, not the extent.

				to support the evolution of the undertakings' models. Ideally, the methodologies could be shared in order to maximise the trade-off between costs and benefits, minimise the time needed to implement effective strategies and even promote comparable approaches. This considered, there are many uncertainties about the way climate change will impact economic and social systems and the interconnection between sectors and sub-sectors. It is therefore difficult to translate such impacts through the macroeconomic and financial hypothesis and shocks. As a consequence, the evolution of scope, depth and methodologies of undertakings' quantitative (scenario) analyses of climate change risks will take place gradually over the years. The progression on modelling expertise and tooling will probably not be the only way forward. Insurers might get insights on their vulnerabilities to climate change and timely adapt to identified risks not only using climate scenarios but also using other means. In addition, although it is expected to place specific emphasis on the impact of climate-change-related risks in risk management processes, the degree of evolution should depend on the materiality of the risks for individual companies. Emphasis on sustainability risks notwithstanding, it would be very burdensome to require an explanation of non-materiality for every conceivable risk. Last but not least, the incorporation of more "what-if assessments" and limited scenarios of specific events might be as useful as long-term quantitative assessments to determine impact of climate change and required mitigating actions.	
159	CRO Forum	Q7	Yes	As noted, we expect all companies to place specific emphasis on the impact of climate-change-related risks in	Noted/partially agreed. As mentioned above,

				their risk management processes, the degree of evolution should depend on the materiality of the risks for individual companies. As such, for this particular case such information is likely available. Nevertheless, we would highlight this should not lead to an expectation that such an explanation of non-materiality is requested for every conceivable risk. In this context, we would suggest that undertakings should be expected to explain why the chosen material risks related to climate change are indeed material, rather than the other way around. In addition, we believe a first step could be the incorporation of more 'what-if' assessments of events that can be defined, but whose probability and timing of occurrence are not known, in order to determine impact and actions. Such specific and limited scenarios may be at least as useful as holistic long-term assessments. Especially qualitative assessments explaining and analysing the relevance of high-level trends and general developments in combination with suitable "what if" analyses can provide more powerful results in terms of communication and business steering acceptance than overparameterized theoretical scenarios. As highlighted in the response to Q3, we caution against moving faster than data vendors and modelling capabilities. While there are providers who support e.g. a 1.5-degree scenario today, the data quality is not high, and modelling relies on a number of key assumptions and is subject to a number of weaknesses and limitations.	the nature of an undertaking should influence the way in which they reflect about climate change risks, not the extent. However, risks that are not deemed material need not be analysed in an ORSA, given its purpose and scope.
160	Insurance Ireland	Q7	Yes	Yes. This is reasonable and relevant for all risks. Scope, depth and methodologies are expected to evolve as the undertakings expand the application of existing methodologies and new sophisticated methodologies are developed. The work by universities, meteorological	Noted/agreed. Academic circles such as those which work with the Network for the Greening of the Financial System

				institutions and commercial modelling companies will also allow to improve the risk analyses. This process of undertakings gaining experience and expanding the scope of their analysis and technical know-how can get even faster thanks to regulators. In fact, regulators play a major role by publishing more and better data over time as well as developing technical information to support the evolution of the undertakings' models. Ideally, the methodologies could be shared in order to maximise the trade-off between costs and benefits, minimise the time needed to implement effective strategies and even promote comparable approaches. This considered, there are many uncertainties on the way climate change will impact economic and social systems and the interconnection between sectors and sub-sectors. It is therefore difficult to translate such impacts through the macroeconomic and financial hypothesis and shocks. As a consequence, the evolution of scope, depth and methodologies of undertakings' quantitative (scenario) analyses of climate change risks will take place gradually over the years. The progression on modelling expertise and tooling will probably not be the only way forward. Insurer might get insights on their vulnerabilities to climate change and timely adapt to identified risks not only using climate scenarios but also using other means like SWOT analyses, war rooms, game theory, challenge-meetings, and in general, more qualitative approaches.	(NGFS) aim precisely at making such tools widely available and harmonized using up-to-date data and techniques.
161	Swiss Re	Q7	Yes	As noted, we expect all companies to place specific emphasis on the impact of climate-change-related risks in our risk management processes, the degree of evolution should depend on the materiality of the risks for individual companies. Emphasis on sustainability risks notwithstanding, we disagree with EIOPA's request for 'an explanation if the undertaking concluded that climate	Noted/partially agreed. As mentioned above, the nature of an undertaking should influence the way in which they reflect about climate change

				change is not material', as climate change risk is one of the many risks insurers are exposed to and it would be nonsensical to expect such an explanation of non-materiality for every conceivable risk. Rather, undertakings should be expected to explain why the chosen material risks are indeed material, not the other way around. In addition, we believe a first step could be the incorporation of more 'what-if' assessments of events that can be defined, but whose probability and timing of occurrence are not known, in order to determine impact and actions. For example, a sudden policy change could be assessed for its impact on the firm's investment portfolio or similarly such event could also have an impact for underwriting, e.g. increasing liability risks. Such specific and limited scenarios may be at least as useful as wholistic long-term assessments. We caution against moving faster than data vendors and modelling capabilities. While there are providers who support e.g. a 1.5-degree scenario today, the data quality is not high, and modelling relies on a number of key assumptions and is subject to a number of weaknesses and limitations.	risks, not the extent. EIOPA's request for explanation pertains to the categorical non-materiality of all climate risks, not their individual dimensions. Thus, it is not expected that undertakings justify the omission of every risk deemed non-material. We hope tools (and their availability) will soon evolve to allow undertakings of all sizes to properly evaluate climate change risks.
169	EIOPA Insurance and Reinsurance Stakeholder Group	Q8	Yes	The ORSA should be kept as the company's own assessment and scenario analyses should be kept at the discretion of the insurer based on its own risk assessment. This considered, we also have the following suggestions: • The first guideline should be that an insurer' examination of climate risk should be proportionate to its size, complexity and vulnerability. The list of suggestions to include different elements in the scenarios is very long. We believe annex 5 is beyond the scope of the ORSA and seems too detailed for this context and for this purpose.	Noted. EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach.

				• Competent authorities should initially encourage and challenge (re)insurers to make a first step on the assessment of climate related risks (identification, qualitative impact on both short term, ie 1-3 years, and longer term, ie 5 or more years). • Competent authorities should be aware that translating the results of climate change risk scenarios into financial impacts could be potentially misleading, if not all variables are clearly considered. Given all the associated uncertainties, there is a risk of making decisions based on evidence that is in fact hardly significant, where professional judgment and consideration of future business environment (changes in portfolios, conditions, rates, economy, etc.) alone would be more valuable. Data quality and science-based target initiatives (pathway analysis) are also worth considering as important to improve and develop reliable scenarios. As data science is developing among insurers, it is providing valuable enhanced insights in risk analysis and management, strengthening the quality and reliance of risk management processes. Assets are priced in markets well aware of climate issues. Market prices necessarily factor climate implications in ways that are certainly meaningful. In this respect, we think it is important to support and encourage all asset owners to develop and ask for better data incorporating a number of dimensions and scopes.	
170	FERMA (Federation of European Risk Management Associations)	Q8	No		
171	AMICE	Q8	Yes	We would like to reiterate that the ORSA should keep the company's own examination and the scenario analysis should be left at the insurer's discretion based on its own	Noted. EIOPA's expectations to CAs on the supervision of the

				risk assessment and at the level of granularity meaningful to its own exposures that often depend on deeply local information. The guidance in Annex 5 is primarily focuses on climate and macro-economic scenarios. For physical risk, expectations on climate adaptation are essential but also difficult to define. For example, sea levels can rise but flood defenses can also be improved: The extent to which climate change risk will evolve will depend on the balance between these developments. EIOPA has listed a significant number of different elements to feature the climate change risk scenarios. This increases the complexity of the scenarios with a horizon up to 10 years but in particular for small and medium size undertakings. CAs should encourage and challenge large (re)insurers to carry out a first assessment of the undertaking's climate related risks that should comprise an identification of these risks, a qualitative assessment of the impact on the short term (i.e 1-3 years) and longer term (> 5 years) and the potential volatility. Data science is developing among insurers and is providing valuable enhanced insights on risk analysis and management, strengthening the quality and reliance of risk management processes; we referred to under question 4 and 7. Assets are priced in markets well aware of climate issues. Market prices necessarily factor climate implications in a meaningful way. It is worthwhile pointing out that there is not a straightforward link between the (sudden) occurrence of climate change effects and asset prices; This means that assumptions/estimations would have to be made. And in	integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach.

				order to obtain comparable outcomes, standardization of those estimations is needed; Also, when assessing the treatment of "brown" investments care should be taken in order not to generate a "self-fulfilling prophecy". As the composition of asset portfolios changes regularly, this leads to difficulties in comparing annual revisions and year-on-year changes to the outcomes of the required analysis.	
172	AIR Worldwide	Q8		We do not have specific suggestions on the wording of Annex 5 but allow ourselves to point to AIR's latest climate change study which may offer another relevant example for a study setup. AIR recently investigated potential impacts of climate change on US Hurricane losses. A peril that is relevant for most global reinsurers: https://www.air-worldwide.com/siteassets/Publications/White-Papers/documents/air_climatechange_us_hurricane_whitepaper.pdf	Noted.
173	Unipol Group S.p.A.	Q8	Yes	Unipol would stress the need to keep climate projections as simple as possible and consistent with strategic planning holding period. Especially we suggest avoiding stress test needing multiple-year projections on a dependent path of multiple balance sheets. A progressive approach in the introduction of long term horizon planning and scenario analysis and guidelines are requested to allow to insurance undertaking to improve methodologies in close cooperation with Strategic Planning Functions.	Noted. EIOPA understands that performing these tasks are challenging. Going forward, EIOPA is considering developing and providing optional guidance for companies regarding climate scenario design and specifications.
174	PIU - Polish Chamber of Insurance	Q8	Yes	It seems to be too early to provide the relevant and valuable guidelines for scenario analyses in insurers ORSAs. Expectations set in the guidelines seems to be set too high. It is unrealistic to expect the insurers to translate the transition pathways like carbon prices, emission levels, into impact on prices; or temperature increases into physical impacts in a precise way. Moreover academic	Noted. EIOPA understands that performing these tasks are challenging. Going forward, EIOPA is considering developing and providing optional

				studies are for sure the interesting input, nevertheless it is often difficult to rely on those models and to adapt them to the time-horizon needed or the granularity needed for the underwriting purposes. Therefore, even if some ideas are a step in a good direction, both supervisors and insurers need more time and experience to prescribe any useful guidelines. National competent authorities should instead encourage the insurers in scenarios development and facilitate their access to data and available sources of valuable information and studies. Nevertheless ORSA should remain company specific.	guidance for companies regarding climate scenario design and specifications.
175	EY	Q8	Yes	As climate change scenario analysis is a rapidly developing field and as per replies to previous questions, some of the nuances and complexities are not yet well understood by financial service practitioners. These points are: • Paragraph on the different types of scenario and underpinning assumptions Climate scenarios can be constructed in a variety of ways. For example, by working backwards from a specific temperature outcome or by projecting forwards based on government policies and rate of penetration of renewables etc. Underpinning each scenario is a range of assumptions; it is important for undertakings to understand these underpinning assumptions and how these may translate into ranges of uncertainty in the results. This is of particular importance where the assumptions are likely to result in under-statements of risk due to the exclusion of certain factors, for example, policy changes (transition risk) or a range of physical risk drivers (eg methane	Agreed, paragraph on reverse stress testing was included in paragraph 5.4 of Annex 5.

				release, deforestation). • Paragraph on reverse stress testing and qualitative analysis Paragraph 5.3 highlights the importance of undertakings paying due attention to scenario narratives. We believe this qualitative analysis can significantly deepen undertakings' understanding of the ways in which climate risks and opportunities may manifest. We recommend adding a paragraph highlighting the potential to use reverse stress-testing as a tool to explore a combined physical, transition and liability risk scenario, which undertakings can use to develop their understanding of the ways in which risks can both emerge and combine, thus informing development of an appropriate suite of management responses. Finally, we refer to the IIGCC's 'Navigating scenario analysis' paper for consideration of inclusion into the list of references. Whilst written for investors it is another helpful guide.	
176	Partnership for Carbon Accounting Financials	Q8	Yes	The ORSA in Solvency II could steer insurers away from harmful exposures, and as such from transition risk, by requiring them to track their absolute financed emissions and the climate performance of their portfolios. To this end, insurers could benefit from shared data and methodologies in the sector. For example, PCAF's Global GHG Accounting and Reporting Standard for the Financial Industry: • Is a harmonised approach, providing all types of FIs with the starting point required to set science-based targets and align their portfolios with the Paris Climate Agreement and simplifying the comparison of GHG emissions information across financials.	Noted. EIOPA will consider including this reference in future work.

				• Is open source and free to use, ensuring universal adoption across all types of financial institutions globally, no matter their size or geography. • Creates transparency and accountability, enabling FIs to satisfy the growing investor demand for climate data while helping FIs, their investors and their supervisors to monitor and manage progress towards goals. PCAF also facilitates data collection: • PCAF makes use of existing climate data registers as much as possible, (notably where it regards smaller debtors such as SMEs and households) and processes data in a manner that serves portfolio management for all financial undertakings. • PCAF identifies gaps where more effort is needed to produce relevant information. • PCAF shares methodologies, data and estimates, which lowers the cost of setting up internal accounting systems and simplifies the challenges faced by financial undertakings in finding relevant information with respect to their climate impact.	
177	German Insurance Association	Q8	No		
178	Actuarial Association of Europe	Q8	Yes	We suggest that the CAs propose a hierarchy of methods in which undertakings can choose the step they want to start with based on their maturity in climate risk assessment and their exposure to climate risk. Given the considerable uncertainty around the impact of climate change on physical variables (such as the	Noted. EIOPA understands that performing these tasks are challenging. Going forward, EIOPA is considering developing and providing optional

				frequency and severity of storms) and other material risk drivers such as socio-economic trends, including economic growth, population dynamics, climate adaptation, etc., for medium to long-term time horizons, section 5.9 could highlight the importance of qualitative scenarios, per the qualitative materiality assessment proposed in paragraph 3.11. It would be useful to provide guidance about whether climate change risk scenarios in ORSA should represent plausible outcomes for the mean or for the tail of the possible distribution of outcomes. The physical impacts example seems to be based on the mean whereas a (re)insurer may be more focused on more extreme outcomes, including 1 in 200. It may be worthwhile contextualising that (re)insurers' risk of ruin is capped at 0.5% over one year and needs to be appropriately set for longer projection periods. The guidance could also be more specific. In particular, the long term assumptions for each scenario should consider: environment assumptions (temperature, meteorological, markets, demographics ...) and portfolio and management assumptions (margin levels, premium volumes, investment behaviours ...). These assumptions should be best estimates in order not to distort specific impacts of climate change. The consultation paper gives significant reference sources and scientific research to help undertakings starting their climate change risk scenario analysis. In addition, providing assumption sets for use under sample scenarios would assist an entity (in particular smaller undertakings) with initially formulating scenarios (e.g. long term equity return, interest rate, mortality improvement rates etc.). We would recommend the following:	guidance for companies regarding climate scenario design and specifications.

				- EIOPA should allow accessibility to data and expertise (incl. underlying justification of the calibration) to foster the learning of the insurance sector while allowing undertakings to make those "own" given their own risk profile and business strategy - EIOPA should provide guidance on how to categorise exposures into homogeneous group of exposures towards transition risk (ex: fossil intensive companies with low carbon alternatives, fossil intensive companies without low carbon alternatives, companies with costs highly dependent on fossil intensive companies, etc.) - Regarding transition pathways, most methods apply shocks on asset valuation at sector level by instrument type (equity vs bond). We know this is not granular enough as sensitivity to transition risk might be highly heterogeneous within a given sector. The UNEPFI project pilot rather recommend to build group of homogeneous exposures. Then, assess transition pathways on P&L items (revenue, (in)direct emission cost, cap Ex) of a sample of counterparties and extrapolate to the homogeneous group of exposure it belongs. Anyway, during a transitional period supervisory actions should be less stringent and more educational and knowledge sharing in nature. At present there is a preference for qualitative analyses.	
179	UAB "SB Draudimas"	Q8	Yes	We would expect more specific guidance. For example, how should macroeconomic parameters such as GDP, price levels, interest rates be assessed in a long-term. Small undertakings do not have the resources to forecast long-term changes in the overall economic parameters needed to analyze climate change. Reliable sources should be identified to provide such a long-term assessment. Based	Agreed. Going forward, EIOPA is considering developing and providing optional guidance for companies regarding climate scenario design and

				on these data, smaller companies could perform a climate change risk analysis.	specifications.
180	JBA Risk Management Limited	Q8	Yes	This is one of the weaker sections of the document. Para 5.9 hides a huge amount of complexity. "These changes need to be converted" – but most insurers will not have the capability to do this – it's a topic for specialist academics and/or modelling companies. What can be done to help companies here? The illustrative example deals with means (i.e. increase in AAL) but does not consider the potential change in severity of an extreme event, which is more likely to have an impact on solvency should it occur. This along with the omission of any discussion regarding uncertainties is a significant omission from this section of the report. A possible further reference to use: https://www.fca.org.uk/publication/corporate/climate-financial-risk-forum-guide-2020-scenario-analysis-chapter.pdf The Bank of England paper is likely to be helpful; should EIOPA publish an equivalent?	Noted. EIOPA understands that performing these tasks are challenging. Going forward, EIOPA is considering developing and providing optional guidance for companies regarding climate scenario design and specifications.
181	Moody's ESG Solutions	Q8	Yes	We observe that ideally, there would be some degree of consensus on the economic and financial implications of climate change which would allow insurers to work around a common set of assumptions for scenario analysis and ORSA. In practice, this consensus does not currently exist. Given this, competent authorities may have to decide whether to impose a standard set of assumptions (like the Bank of England did in 2019), or to task insurers with developing their own capabilities and assumptions. The NGFS scenario initiative is helping, and should lead to	Noted.

				more comparable scenarios and modelling. The NGFS scenarios identify and embed a set of different assumptions about marginal abatement costs/curves for transition, as well as physical climate based economic damages. These could form the basis for more standardised modelling. However, the sensitivity to these costs/risks currently needs to be assessed by undertaking firms. This is a challenging effort. For example, scope 1-3 carbon foot printing does not naturally map onto the abatement costs associated with specific economic sectors/activities modelled in the NGFS scenarios. Likewise, physical hazard exposures will not be captured adequately without post code/geo-spatial location and other information.	
182	Insurance Europe	Q8	Yes	The ORSA should be kept in the company's own assessment and scenario analyses should be kept at the discretion of the insurer based on its own risk assessment. This considered, the insurance industry has the following remarks: -The first guideline should be that an insurer's examination of climate risk should be proportionate to its size, complexity and vulnerability. National competent authorities (NCAs) tend to overreact in prescribing requirements and approaches. Guidelines could provide good help to their supervisory activities. The list of suggestions to include different elements in the scenarios is very long. Especially for small undertakings this is not doable, but also not necessary for horizons up to 10 years. -NCAs should encourage and challenge (re)insurers to make a first step on the assessment of climate related risks (identification, qualitative impact on short term, ie 1-3 years, and longer term, ie five or more years, potentially including the volatility).	Noted. EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach.

				-Data quality and science-based target initiatives (SBTi) are key in scenario analysis and might be given more relevance as, without this information, it will be hard to improve and develop reliable scenarios. However, as both methods and data are under development, the industry understands that it is hard to provide clearer guidance. In this respect, it is important to support and encourage all asset owners to develop and ask for better data incorporating a number of dimensions and scopes. -The guidance is primarily focused on climate and macro-economic scenarios. For physical risk, expectations on climate adaptation are essential, but also difficult to make. For example, sea levels will rise, but flood defences will be improved. Adaptation needs to be considered more closely as the evolution of the risk depends on the balance between these developments. -There is no straightforward link between the (sudden) occurrence of climate change effects and asset prices. This means that assumptions/estimations will have to be made, which will also help achieve comparable outcomes. Composition of asset portfolios change over time, also to deal with changes in risks. This leads to difficulties in comparing year-on-year changes in the outcomes of the required analysis. Care should also be taken in order not to generate a "self-fulfilling prophecy" in the treatment of "brown" investments in all the assessment. -Relying on external models is fine up to a certain point. However, if it leads to just a few models dominating the landscape, then over-reliance could emerge and that would increase systemic risk (like has happened with rating agencies). Diversification of approaches and models would therefore be better for financial stability and innovation. -Similar analyses and examples of Annex 5 for non-life	

				companies could be useful also for life companies and for non-financial risks, such as biometric risks. -Given all the associated uncertainties, there is a risk of making decisions based on evidence that is in fact hardly significant, where professional judgment and consideration of future business environments (changes in portfolios, conditions, rates, economy, etc.) alone would be more valuable. For the longer term, more value may come from considering extreme but plausible outcomes qualitatively, for assessing possible strategic challenges and opportunities (see also Q7). In case financial impacts are calculated for the longer term (ie 2030 onwards), the risk is applying a non-reliable model.	
183	CRO Forum	Q8	Yes	Whilst Annex 5 provides a useful guide to inform individual analyses it should not be seen as a prescriptive requirement and as such, we believe annex 5 is beyond the scope of the ORSA and seems too detailed for this context. How the analysis for the ORSA is set up and performed should very much remain at the discretion of the respective insurer and based on an insurer's own judgments and analysis. Just as an example, for physical risk, expectations on climate adaptation are essential, but also difficult to make. Sea levels may rise, but equally flood defences may be expected to be improved. How the risk will evolve depends on the assessment of the balance between these developments.	Noted. EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach.
184	Insurance Ireland	Q8	Yes	Given the objective of supervision and the uncertainty regarding the effects of climate change, climate stress-testing could be a more relevant tool for supervisors to assess climate change risks in a more harmonised way. The ORSA should be kept the company's own assessment and scenario analyses should be kept at the discretion of the insurer based on its own risk assessment. This considered, the Insurance Ireland has the following	Noted. EIOPA's expectations to CAs on the supervision of the integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and

				remarks: • The first guideline should be that an insurer' examination of climate risk should be proportionate to its size, complexity and vulnerability. Multi period stress testing could fit that need, but it is certainly not the only solution to tackle the problem. CAs tend to overreact in prescribing requirements and approaches. Guidelines could provide good help to their supervisory activities. The list of suggestions to include different elements in the scenarios is very long. Especially for small undertakings this is not doable, but also not necessary for horizons up to 10 years. • CAs should encourage and challenge (re)insurers to make a first step on the assessment of climate related risks (identification, qualitative impact on short term, ie 1-3 years, and longer term, ie 5 or more years, potentially including the volatility. • Data quality and science-based target initiatives (SBTi) are key in scenario analysis and might be given more relevance as without this information it will be hard to improve and develop reliable scenarios. However, as both methods and data are under development, the industry understands that it is hard to provide clearer guidance. In this respect, it is important to support and encourage all asset owners to develop and ask for better data incorporating a number of dimensions and scopes. • The guidance is primarily focused on climate and macro-economic scenarios. For physical risk, expectations on climate adaptation are essential, but also difficult to make. For example, sea levels will rise, but flood defences will be improved. Adaptation needs to be considered more closely as the evolution of the risk depends on the balance between these developments.	proportionate approach.

				• There is no straightforward link between the (sudden) occurrence of climate change effects and asset prices. This means that assumptions/estimations will have to be made, which will also help achieve comparable outcomes. Composition of asset portfolios change over time, also to deal with changes in risks. This leads to difficulties in comparing year-on-year changes in the outcomes of the required analysis. Care should also be taken in order not to generate a "self-fulfilling prophecy" in the treatment of "brown" investments in all the assessment. • Relying on an external model is fine up to some point. If it would lead to a few models dominating the landscape, then over-reliance could emerge and that would increase systemic risk (like it happened with rating agencies). Diversification of approaches and models would be better for financial stability and innovation. • It would be useful to translate the concept of Climate VaR and expected shortfall on government bonds (see article by Battiston and Monasterolo) at a Solvency II scenario-based level. • Similar analyses and examples of Annex 5 for non-life companies could be useful also for life companies and for non-financial risks, such as biometric risks.	
185	Swiss Re	Q8	Yes	We think the suggestions in Annex 5 are broadly the right ones. We particular like the reference to the NGFS' work. However, we propose to modify Annex 5.9 "Physical impacts on underwriting activities" because the translation of long-term (temperature) scenarios into physical and financial risk will often not lead to decision-useful information. This is due to considerable uncertainty around the impact of climate change on physical variables (such as the frequency and severity of storms) and other material	Noted. EIOPA understands that performing these tasks are challenging. Going forward, EIOPA is considering developing and providing optional guidance for companies regarding climate scenario design and

				risk drivers such as socio-economic trends, including economic growth, population dynamics, climate adaptation, etc. Therefore, for a mid- to long-term time horizon, Section 5.9 should highlight the importance of qualitative scenarios, similar to a qualitative materiality assessment proposed in paragraph 3.11.	specifications.
193	EIOPA Insurance and Reinsurance Stakeholder Group	Q9	Yes	We think transparency of climate-related information is key for a number of reasons: to increase awareness of the effect of climate change, to enhance resilience of business models, achieve better understanding of climate change, improve identification of climate risks and their transmission channels, etc. In fact, various insurers already publish a dedicated climate report and most European insurers already provide some form of sustainability risk disclosures, e.g. following the TCFD recommendations. While requirements to disclose information on climate risk should be regulated through the review the non-financial reporting, competent authorities can already encourage larger undertakings to disclose climate-related information via non-financial reporting, especially when reporting is publicly available. In addition, they can play a role in facilitating the availability of ESG information, which is a key challenge for insurers. Information disclosed should of course be consistent with the ORSA. However, the ORSA itself is not the appropriate mechanism to provide climate-related reporting. Disclosing ORSA specific information about the risk exposures, including climate change risk, should remain at the discretion of each company. While ORSA is used for internal purposes, in particular for its own risk assessment and management, external reports are intended to inform stakeholders. There is a danger that the different	Agreed, the Opinion has been elaborated in (1) paragraph 3.28 by mentioning the benefits of disclosure more clearly and (2) paragraph 3.30 by mentioning explicitly "...recognising that the ORSA report and disclosures under the NFRD have different objectives."

				objectives and requirements will be mixed up.	
194	FERMA (Federation of European Risk Management Associations)	Q9	Yes	Yes. However, an ultimate goal should be a more harmonized reporting framework for larger companies (eg NFRD, Solvency II, Corporate Sus Governance, etc.).	Noted.
195	AMICE	Q9	Yes	We do but sustainability risk disclosures are already a practice for various insurers. Considering the limitations mentioned under our response to question 2, notably that the impacts of climate change and climate change itself are not fully grasped, it is also potentially dangerous to become overly confident on views and outcomes just because of the ability to produce overly padded disclosures that might induce a false feeling of comfort in the mastering of climate risk. For example, long-term scenarios can only be assessed in a qualitative way. Undertakings would need time to develop this information. It is also worthwhile reminding that some insurers already produce disclosures on management of climate risks including forward-looking scenarios analysis in sustainability reporting or other relevant documentation. To assess climate risks, many supervisors could collect supplementary information on an ad-hoc basis through surveys and targeted requests.	Noted.
196	AIR Worldwide	Q9			
197	Unipol Group S.p.A.	Q9			
198	PIU - Polish Chamber of Insurance	Q9	Yes	First of all the requirements to disclose information on climate risk should be reviewed on an ongoing basis in the process of non-financial reporting requirements reviews. The role of the competent authorities should be to encourage larger undertakings to disclose climate-related	Noted.

				information via non-financial reporting, especially when reporting is publicly available and ensure the availability of ESG information.	
199	EY	Q9	Yes	Competent authorities should encourage larger undertakings, not currently within scope of the Non-Financial Reporting Directive (NFRD), to disclose climate-related information in line with the Commission's Guidelines, particularly where an insurance undertaking's lines of business exposure them to significant financial risks from climate change risk. However, between February-June 2020 the Commission consulted on possible revisions to the NFRD and the scope of the directive was one of the areas addressed by the consultation document. The summary of responses published subsequently by the Commission shows that 62% of responses support extending the scope of the NFRD by aligning the size criteria with the definition of large undertakings set out in the Accounting Directive (i.e., a 250 instead of 500 employee threshold). In our response to the Commission's consultation, EY supported a 250-employee threshold and other proposals to extend the scope of the NFRD. In our view, it is important to have consistent reporting thresholds across all environmental reporting requirements and we note that some EU Member States, such as Sweden, Denmark and Luxembourg already use the lower, 250 employees, threshold in their domestic implementation. If the Commission aligns the scope of the NFRD with the Accounting Directive, and, hence, extends the reach of their Guidelines, we believe that this would level the playing field for disclosure and create a more consistent, pan-EU approach for insurance undertakings.	Noted. Paragraph 3.30 has been enriched by explicitly stating "...recognising that the ORSA report and disclosures under the NFRD have different objectives."
200	Partnership for Carbon	Q9	Yes	International accounting standards and reporting rules as determinants for longer term assessments of financial	Noted.

	Accounting Financials			soundness ignore subsidies for harmful energy-sources and negative impact of economic activities on people and planet; in general, their focus on shareholder value implies neglecting many aspects of life that matter to broader groups of corporates' stakeholders. Since financial disclosure requirements do not include mandatory sustainable impact reporting, stakeholders cannot assess whether a company contributes to or harms the agreed Sustainable Development Goals, or the European Union's sustainable ambitions for that matter. The re-allocation of money towards sustainable causes is hampered by incomplete and non-mandatory reporting requirements for companies. The current "split" accounting framework of the Accounting Directive versus the Non-Financial Reporting Directive, with different scopes of application and differing degrees of enforceability, hampers investors' efforts to collect relevant information about their investees. The mere name of the "Non-Financial" Reporting Directive reveals how accounting rules regard financial information and ignore sustainability information. The disclosure rules of Solvency II need a review in light of today's knowledge with respect to the impact of climate change. Large insurers should, just like large banks following Article 449a CRR, disclose their material climate impact.	
201	German Insurance Association	Q9	No	In general, GDV supports the objectives of the European Commission to review the Non-Financial Reporting Directive (NFRD) in order to improve the availability and quality of non-financial information. It is primarily the transparency of climate-related information that is most urgent and should be enhanced by companies subject to the NFRD.	Noted. The Opinion has included under paragraph 3.30 the explicit mentioning "...recognising that the ORSA report and disclosures under the NFRD have different objectives."

				In the consultation paper, EIOPA refers several times to the Non-Binding Guidelines (NBGs) on Non-Financial Reporting: Supplement on Reporting Climate-Related Information (2019/C 209/01). These NBGs are a supplement to the NBGs on Non-Financial Reporting from 2017 (2017/C 215/01). The European Commission's intention of developing the NGBs was to support companies in fulfilling their non-financial reporting obligations in accordance with the NFRD. However, as they are non-binding, and according to the NFRD, companies can choose to apply the guidelines. Companies are also free to choose another reporting framework, a combination of frameworks, or no reporting framework at all to fulfil their non-financial reporting obligations. Furthermore, in reporting practice, companies choose reporting frameworks that best address their most relevant internal and external stakeholders. To summarize, this means, firstly, that undertakings cannot be expected to collect and disclose all information based on non-binding guidelines. Secondly, as it is part of the review of the NFRD, the trilogue will have to determine the non-financial reporting obligations for companies subject to the NFRD. EIOPA should not predetermine the results of this process by referring to the NBGs of the EU Commission which have never followed the process of the trilogue. Finally, while ORSA is used for internal purposes, in particular for its own risk assessment and management, external reports are intended to inform stakeholders. There is a danger that the different objectives and requirements will be mixed up. Additionally, referring to the disclosure of climate-related information, there is already regular extensive reporting about natural catastrophes by GDV ("Naturgefahrenreport"). This report contains relevant data	

				in an aggregated form for the German market.	
202	Actuarial Association of Europe	Q9	Yes	Climate risk is acknowledged as a systemic risk. It is important that stakeholders can verify the consistency of the undertaking's current climate position, the undertaking's strategy and the undertaking's assumptions on the future development. To some extent larger undertakings will already be under greater market pressure to make these types of disclosures. They could be encouraged to develop a measure that could foster the overall development of risk assessment. Disclosure will also help the society's engagement in solving the climate crisis. As such communication on climate-related information can cause additional cost, proportionality will again be important here. We support the proposal to align reporting on climate risk in the ORSA supervisory report with the undertakings' public disclosure of climate-related information under the NFRD, as a way to minimise over-reporting and reduce costs. It should be considered, how far these NFRD-related requirements are appropriate for smaller undertakings or if a set of less onerous guidelines should be developed. Anyway, the overhead required for this purpose should be considered. Aligning the level of details with the scale or complexity of a firm can alleviate the introduction. Clarification is required with regard to the way, firstly how and in which public documents should be made available (SFCR) and secondly how to properly communicate publicly on "how climate-related" risks affect overall solvency needs of the undertakings" (see para 3.27). Disclosure requirements need to be balanced with undertakings' interest, not to disclose commercially sensitive details.	Noted.
203	UAB "SB Draudimas"	Q9	Yes	We believe that sharing such information would help to develop common models for risk assessment more quickly and efficiently. Based on general guidelines, the modeling	Noted.

				results would be more comparable between different undertakings. It is also could be a source of data that is currently sorely lacking.	
204	JBA Risk Management Limited	Q9	Yes	Sensible + alignment with guidelines adds consistency.	Noted.
205	Moody's ESG Solutions	Q9	Yes	Disclosing forward-looking climate risk is important, because as noted in the Opinion the past no longer provides accurate indications of what the future will hold, and climate risks are not currently priced. Comparable risk disclosure is an important step in increasing transparency of climate risks in the financial system which will help create adequate pricing of such risks and inform risk mitigation efforts. We specifically point to the NFRD supplement on climate risk, which calls for disclosure aligned with the TCFD recommendations, which is a global framework that will help increase global consistency and comparability of climate risk disclosures.	Noted.
206	Insurance Europe	Q9	Yes	European insurers agree that transparency of non-financial information is needed, provided that it duly takes into account confidentiality principles and is meaningful. Transparency is also crucial for data availability and quality of climate-related information necessary for reporting. In this respect, the industry is of the opinion that potential requirements to disclose information on climate risk should be regulated through the ongoing process to review the non-financial reporting. Competent authorities can also encourage larger undertakings to disclose climate-related information via non-financial reporting, especially when reporting is publicly available, and can have a role in facilitating the availability of ESG information: eg at asset level. This would also enhance the confidence of policyholders in the financial institutions and would promote the awareness	Agreed, the Opinion has elaborated paragraph 3.28 by mentioning the benefits of disclosure more explicitly, of which amongst others the wording on 'higher confidence of policyholders and better corporate reputation'.

				on climate change issues. If policyholders and potential clients were more informed on climate-related issues and the undertaking gained a good reputation on the market, this would in turn enhance the demand of insurance covers or, in any case, reinforce the perception of the goodness of the company's reputation and brand. The industry recognises that climate-related disclosure is important for a number of reasons (eg to improve awareness of the effects of climate change, the resilience of business models to the physical and transition risks, understanding of climate change risks, the comparability of the results of scenario analyses and risk identification and transmission channels, etc). In fact, various insurers already publish a dedicated climate report and most European insurers already provide some form of sustainability risk disclosures: eg following the TCFD recommendations. With respect to the ORSA, insurers note that this is not the appropriate mechanism to provide climate-related reporting and that CAs should not be given discretionary power to require such disclosures via non-mandatory guidelines. While insurers agree that public disclosures of climate-related information should be consistent with that in the ORSA, disclosing ORSA specific information about the risk exposures, including climate change risk, should remain at the discretion of each company. While the ORSA is used for internal purposes, in particular for its own risk assessment and management, external reports are intended to inform stakeholders.	
207	CRO Forum	Q9	Yes	Whilst CAs should encourage disclosure of climate related information in line with commissions guidelines on the NFRD, it is not clear why this should be included in an opinion on the supervision of the ORSA. Public disclosures and the ORSA have different purposes and different	Noted.

				audiences. Climate-related disclosures are covered outside of the prudential regulation for good reasons and through hard law, that the EU Green Deal is going to significantly reinforce.	
208	Insurance Ireland	Q9	No	No. The ORSA is not the appropriate mechanism to provide such reporting and CAs should not be given discretionary power to require disclosures via non-mandatory guidelines. Disclosing information about the risk exposures, including climate change risk, should remain at the discretion of each company. The industry recognises that climate-related disclosure is important for a number of reasons (eg to improve awareness of the effect of climate change, the resilience of business models to the physical and transition risks, understanding of climate change risks, the comparability of the results of scenario analyses and risk identification and transmission channels, etc). In fact, various insurers already publish a dedicated climate report and most European insurers already provide some form of sustainability risk disclosures, eg following the TCFD recommendations. The industry is of the opinion that potential requirements to disclose information on climate risk should be regulated through the ongoing process to review the non-financial reporting. Competent authorities can also encourage larger undertakings to disclose climate-related information via non-financial reporting, especially when reporting is publicly available. This would enhance the confidence of policyholders in the financial institutions and would promote the awareness on climate change issues. If policyholders and potential clients were more informed on climate-related issues and the undertaking gained a good reputation on the market, this would in turn enhance the demand of insurance covers or, in any case, reinforce the perception of the goodness of the company's reputation	Noted.

				and brand.	
209	Swiss Re	Q9	No	Swiss Re supports the notion that undertakings should be encouraged to voluntarily adopt TCFD disclosure recommendations and we believe that ongoing enhancements are needed to TCFD disclosure recommendations to make them more comparable between firms and useful for investors. It is important that any disclosure standards consider that disclosing companies should be comfortable about the quality of underlying data on what they publish, to avoid wrong interpretations. Proportionality should not necessarily relate to size of the company only. We believe that Climate-related disclosures are covered outside of the prudential regulation for good reasons.	Noted.
217	EIOPA Insurance and Reinsurance Stakeholder Group	Q10	No	As stated before, ORSA is the company's own analysis and should remain this way. Climate stress testing would be more appropriate in the objective of setting common expectations and standardized scenarios. The insurer should decide of the best way to undertake such an exercise, both in terms of time horizon and granularity. In its attempt to assess climate change impacts under the ORSA, an insurer must rely on its own views and understanding. This is all the more necessary as there are strong unknowns and uncertainties in the evolution and impacts of climate change which may produce very different outcomes. Additionally, most items are interdependent and some approaches appear artificial. A proportionate approach is needed since the materiality of climate risks differs across entities and may change over time. Insurance companies that do not identify significant climate risks in their risk profile should not be forced to use climate scenarios. We are of the view that the costs actually outweigh the	Noted.

				benefits when on one hand, approaches in an ORSA are not proportionate to the insurance undertakings' own risk profile and on the one hand, when scenarios extend to terms that go beyond business plans strategic horizons and beyond the remits of what is needed for key management decisions. This is all the more a strong concern that the impacts of climate change and climate change itself are not fully grasped. We also caution about creating too high expectations about the power of highly uncertain scenario analysis to create input for decisions. The focus should be on integrating climate change in existing risk management processes and tools, e.g. to address potential gaps that might currently exists.	
218	FERMA (Federation of European Risk Management Associations)	Q10	No	Principle of Proportionality must be applied in this context.	Partially agreed. Companies should first assess materiality of climate change risk. If not material, no further long-term scenario analysis is necessary, but this would still require an explanation in the ORSA report.
219	AMICE	Q10	No	EIOPA concludes from the undeniable proposition that climate change is a global challenge that insurance undertakings are at risk in general. We do not agree with this conclusion. The private insurance sector has mastered global changes in technology, military conflict, the breakdown of communism etc. with a remarkable ability to	Noted.

				adapt. This is due to the strong incentive to be successful in a competitive environment under any circumstances. There is no evidence that climate change prevents this mechanism from working. On the contrary, too prescriptive bureaucratic exercises, which are just compliance oriented, and speculative scenarios may provide a false feeling of control over the climate change process. Please also refer to answers to questions above. We would like to reiterate that the decision to perform forward looking analysis on climate change risks in the ORSA should be at the discretion of a specific insurer and relevant to its own risk situation. The insurer should decide on the best way to undertake such an exercise, both in terms of time horizon and granularity. EIOPA's Opinion is too prescriptive and there is too much focus on long-term scenarios, whereas scenarios up to a horizon of 5 to 10 years are more useful. Solvency assessments with a horizon of more than 10 years are less reliable as there are too many factors influencing the solvency level. In its attempt to assess climate change impacts under the ORSA, an insurer must rely on its own views and understanding. This is all the more necessary that there are strong unknowns and uncertainties in the evolution and impacts of climate change which may produce very different outcomes. Additionally, most items are interdependent and some approaches appear artificial. A proportionate approach is needed since the materiality of climate risks differs across entities and may change over time. Insurance companies that do not identify significant climate risks in their risk profile should not be forced to use climate scenarios. We are of the view that the costs actually outweigh the	

				benefits when approaches in an ORSA are not proportionate to the insurance undertakings' own risk profile on the one hand and when scenarios extend to terms that go beyond strategic business plans horizons and the remits of what is needed for key management decisions on the other hand.	
220	AIR Worldwide	Q10			
221	Unipol Group S.p.A.	Q10	Yes		
222	PIU - Polish Chamber of Insurance	Q10	No	The opinion is too prescriptive by requiring a systematic and quantitative climate change scenario analysis in the ORSA, especially but not only for a long term horizon. ORSA should remain company's own assessment and it should cover the climate change risks only if they are material for the individual insurer's risk profile bot on assets and liability side. As both supervisors and insurers are building the expertise at this stage the opinion should not stipulate how climate change scenario analysis should be performed, nor what time horizon should be used in the analyses, as the use and identification of scenarios depends on the undertaking's assessment of the materiality of exposures to climate change risks. Referring to standardised scenarios, climate stress-testing would be more appropriate to achieve the objective of setting common expectations than ORSA. PIU believes that the EIOPA opinion is valuable, however it should serve rather as an educational paper, providing the ideas on how to approach the scenarios for climate change and for that reason should not have a binding character.	Partially agreed. Companies should first assess materiality of climate change risk. If not material, no further long-term scenario analysis is necessary, but this would still require a well-documented explanation in the ORSA report. Consideration of climate risk in the ORSA does not preclude or replace its inclusion in future standardized stress-testing exercises. The ORSA is indeed not the only place climate risk should be considered. EIOPA is considering developing and

					providing optional ORSA guidance for companies regarding climate scenario design and specifications, but no full ORSA standardisation is currently considered.
223	EY	Q10	No	As identified elsewhere in the response there appears to be an evolution of the application of ORSA from a tool designed for micro prudential purposes to be a more encompassing tool to address risks of climate change in both a prudential context and as a more broadly-based policy initiative. If that is the aim, then the creation of standardised process around this extend scope may well be appropriate but it does move away from the extant purpose of the ORSA. Specifically to the extent that EIOPA and/or National Competent Authorities are keen to assess macro prudential and broader risk and non-risk policies that extend the horizon of the ORSA in time or scope it is worth considering whether they lie naturally within the ORSA as currently contemplated in Solvency II or whether the current proposed perspective is more one of an expediency. Irrespective of the location, EIOPA may provide useful guidance as to the shocks to be considered and how insurers may calculate impacts on their liabilities (depending on lines of business and industries) and their assets (for instance, how loss of asset value may be estimated following a stress event)	Agreed. Consideration of climate risk in the ORSA does not preclude or replace its inclusion in future standardised stress-testing exercises. The ORSA is indeed not the only place climate risk should be considered. EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications.
224	Partnership for Carbon	Q10	No	The draft Opinion should at a minimum establish a consistent, common metric to ensure that risk assessments	Noted.

	Accounting Financials			are directly comparable in some respects. We propose that EIOPA require all undertakings to measure their absolute financed emissions according to the Global GHG Accounting and Reporting Standard. This will not only provide the undertakings with an idea of how to steer their portfolios away from harmful exposures, but it will also provide a crucial step needed to begin scenario analysis, target setting, reporting, and climate action. What gets measured gets managed. And if one metric must be chosen of many to be mandatory to measure and disclose, it should be one which feeds into as many existing compliance and reporting requirements as possible. Thus, requiring undertakings to measure their financed emissions would not only allow for direct comparability among undertakings in their reporting, but it would also help undertakings take the necessary first steps toward Paris alignment.	Financed emissions are an important sustainability metric, but it is more appropriately disclosed under other contexts than the ORSA (e.g. NFRD).
225	German Insurance Association	Q10	No	No, the Opinion does not strike the right balance. A more differentiated approach to the topic would be useful. The choice of methods and scenarios depends on many aspects such as the individual risk, materiality, possibility of measures, availability of reinsurance etc. This should be clearly acknowledged by EIOPA and NCAs. Further, we would recommend that the opinion should be clearly stated as non-binding expectations. See also answers to Q1 and Q3.	Partially agreed. See also resolution to comment 218.
226	Actuarial Association of Europe	Q10	No	This Opinion strikes a balance and is a good reference for the many challenges that actuaries will need to consider in the coming decades including allowance for climate change in pricing, in valuation work, constructing optimal investment portfolios and continuously evaluating the appropriateness of the methodology used to calculate and project the solvency needs. The ORSA is expected to support the risk management of	Agreed. Companies should first assess materiality of climate change risk. If not material, no further long-term scenario analysis is necessary, but this would still

				an insurance undertaking on the business time horizon and includes a solvency measure. In this regard the focus should be on enhancing existing risk management processes and tools, and addressing any gaps that might currently exist, in order to allow for climate change. We therefore recommend to focus less on quantitative scenarios and more on the continuous evolution of mitigating actions. Rather than changing the time horizon of the ORSA, the assessment of climate risk impact on the long term could be done through a Long Term Risk Assessment (LTRA) and could feed into the ORSA. This could be performed less frequently than the ORSA (2 to 3 years frequency or less if a material change in conditions occurs) as it assesses a long term phenomenon. This should not result in excluding climate risk from the ORSA. Anyway, it will be important to standardize methodologies and share knowledge, to avoid the risk of over-implementation and excessive costs for undertakings in this transitional phase. The common expectations in 3.15 and 3.18 are subject to "where appropriate", which is consistent with Guideline 7 of EIOPA's Guidelines on ORSA. Given that the identified risks are material, EIOPA could provide some direction or examples to inform a (re)insurance undertaking's assessment of situations where it is appropriate and where it is not. Otherwise there may be inconsistent interpretations.	require a well-documented explanation in the ORSA report. The suggestion of including a long-term quantitative analysis on a periodical but non-annual basis is a welcome suggestion that would fit within this approach (e.g. by explaining that the long-term risk landscape of the company has not materially changed over a year). To support insurance companies and enhance consistency, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications.
227	UAB "SB Draudimas"	Q10	Yes		
228	JBA Risk Management Limited	Q10	Yes	On the whole we favour an approach that is not too prescriptive, since this removes the need for companies to make their own judgements about their specific portfolios. From this perspective, the balance is good. However,	Agreed. To support insurance companies and

				EIOPA should be aware that there are some areas in which the guidance provided may result in very variable approaches – for example, modelling of "- a scenario where the global temperature increase exceeds 2°C?" leaves much to the interpretation of an undertaking.	enhance consistency, EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications.
229	Moody's ESG Solutions	Q10	Yes	While we feel that the draft Opinion strikes a good balance, we believe a remaining challenge will be to set common expectations in the absence of more standardised methods for translating climate scenarios to explicit risks faced by different insurers. What is more, given the level of fundamental uncertainty on some of the key modelling assumptions used (climate sensitivities, economic impacts), these themes can dominate methodology/implementation discussions. The draft Opinion could further expand on the benefits which would arise from developing standardised views on: level of exposures to carbon pricing and abatement cost, exposures to physical hazards and risks, including a clear distinction between insured, insurable and non-insurable hazards, climate sensitivities, and longer term socio economic uncertainties. One way that common expectations might be set is through a focus on market pricing of risks – e.g. incorporating current valuation ratios and discount rates as well as their sensitivities to climate risks.	Agreed. See also resolution to comment 228.
230	Insurance Europe	Q10	No	European insurers agree on the importance to consider climate risk scenarios in the ORSA. However, the opinion appears to be too prescriptive by requiring a systematic and quantitative climate change scenario analysis in the ORSA. In this respect, the opinion should:	Partially agreed. See also resolution to comment 222.

				-Support a more differentiated approach to the topic. The choice of methods and scenarios depends on many aspects such as the individual risk, materiality, possibility of measures, availability of reinsurance etc. This should be clearly acknowledged by EIOPA and NCAs. -Make it clear that the undertakings have freedom on whether and how to include climate change risks in their own risk assessment. The ORSA is the company's "own" analysis and should remain such. -Not stipulate how climate change scenario analysis is performed, nor what time horizon should be used in the analysis, as the use and identification of scenarios depend on the undertaking's assessment of the materiality of exposures to climate change risks. Therefore, the opinion should elaborate on the concept that insurers are not obliged to comply with NCAs' general expectations of what to include in the ORSA when there is no materiality. -Consider that other tools are available to set common expectations about the management of climate change risks. In particular, when talking about standardised scenarios, climate stress-testing would be more appropriate to achieve the objective of setting common expectations. -Furthermore, the opinion should be clearly stated as non-binding and not as binding expectations.	
231	CRO Forum	Q10	No	We believe that the opinion provides a sensible set of directions, which considers some of the aspects already approached in its previous Methodological Principles of Stress Testing as well as a realistic timeline first steps. However, we would like to emphasise that it should not undermine the aim of the ORSA to allow companies doing	Partially agreed. EIOPA acknowledges the inherent uncertainties in the modelling of climate

				their own risk assessment with the flexibility to use an approach that is deemed appropriate based on the company specific business and risk profile. More specific expectations may be set between supervisors and their supervised undertakings. This will ensure a smooth development of further analyses of the topics over time, a good balance between internal needs and related costs, focused communication between the regulator and undertaking. For a good balance to be achieved, EIOPA is requested to: - recognize the link between the ORSA and the strategic or business planning time horizon. Going beyond the strategic planning time horizon can be encouraged in the light of this particular risk, but with the acknowledgement of the more qualitative and contextual nature due to the lower level of reliability of the projections in longer term scenarios. As a result, there should be the expectation of fewer insights and follow up actions which can be taken from such broader analysis. - acknowledge the appropriateness of qualitative climate scenario analysis and highlight that they can be as relevant and appropriate as quantitative assessments, notably when the level of uncertainty is too high or the availability of data too scarce to derive reliable figures. - clarify that this Opinion sets no expectation in terms of standardisation of scenarios as this would be counter effective and undermines the very nature of the ORSA which is an own assessment. - recognize that the ORSA is not a tool designed for disclosure and that climate-related disclosure, nevertheless important, is rightly addressed elsewhere. We would caution about creating too high expectations	risk, in particular over the long-term. Companies should first assess materiality of climate change risk. If not material, no further long-term scenario analysis is necessary, but this would still require a well-documented explanation in the ORSA report. Consideration of climate risk in the ORSA does not preclude or replace its inclusion in future standardized stress-testing exercises. The ORSA is indeed not the only place climate risk should be considered. EIOPA acknowledges that the ORSA is not a tool designed for disclosure. EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications, but

				about the power of highly uncertain scenario analysis to create input for decisions. The focus should be on integrating climate change in existing risk management processes and tools, e.g. to address potential gaps that might currently exists. Leveraging the ORSA to further improve and use capabilities is fully supported, but should be done through building on the spirit and aim of the ORSA rather than contradicting it and keeping in line with the pace of broader improvements and developments in the climate change risk area.	no full ORSA standardisation is currently considered.
232	Insurance Ireland	Q10	No	No. European insurers agree on the importance to consider climate risk scenarios in the ORSA. However, the opinion appears to be too prescriptive by requiring a systematic climate change scenario analysis in the ORSA. In this respect, the opinion should: • Make it clear that the undertakings have freedom on whether and how to include climate change risks in their own risk assessment. The ORSA is the company's "own" analysis and should remain such. • Not stipulate how climate change scenario analysis is performed nor what time horizon should be used in the analysis, as the use and identification of scenarios depend on the undertaking's assessment of the materiality of exposures to climate change risks. Therefore, the opinion should elaborate the concept that insurers are not obliged to comply with CAs' general expectations of what to include in ORSAs when there is no materiality. • Consider that other tools are available to set common expectations about the management of climate change risks. In particular, climate stress-testing would be more appropriate to achieve the objective of setting common expectations.	Partially agreed. EIOPA acknowledges the inherent uncertainties in the modelling of climate risk, in particular over the long-term. Companies should first assess materiality of climate change risk. If not material, no further long-term scenario analysis is necessary, but this would still require a well-documented explanation in the ORSA report. Consideration of climate risk in the ORSA does not preclude or replace its inclusion in future

				• Put more focus on short-term scenarios rather than long-term scenarios. The industry notes that: - Scenarios up to a horizon of 5-10 years are more useful and provide a more reliable outcome. - Scenarios with a horizon beyond 5 years are less reliable for solvency assessments, as there are too many factors influencing the solvency level. • Consider more guidance on how to define a climate change risk scenario for life companies, as for life companies it is easier and, probably, it is easier to assess the climate change risks. Setting of common goals and expectations is of paramount importance, as it is methodology sharing.	standardized stress-testing exercises. The ORSA is indeed not the only place climate risk should be considered. EIOPA is considering developing and providing optional ORSA guidance for companies regarding climate scenario design and specifications, but no full ORSA standardisation is currently considered.
233	Swiss Re	Q10	No	We believe that the opinion provides a sensible set of directions, which considers some of the aspects already approached in its previous Methodological Principles of Stress Testing as well as a realistic timeline first steps. However, we would like to emphasise that it should not undermine the aim of the ORSA to allow companies doing their own risk assessment with the flexibility to use an approach that is deemed appropriate. More specific expectations may be set out between supervisors and their supervised undertakings. A better balance could be achieved, e.g. by the following clarifications: - Going beyond the strategic planning time horizon of ORSA should acknowledge the more qualitative and contextual nature of the long-term analysis. - Acknowledge the appropriateness of qualitative climate	Partially agreed. See resolution to comment 231.

				scenario analysis and highlight that they can be as relevant and appropriate as quantitative assessments, notably when the level of uncertainty is too high or the availability of data too scarce to derive reliable figures. - clarify that this Opinion sets no expectation in terms of using standard scenarios as this would be counter effective and undermines the very nature of the ORSA which is an own assessment. - recognise that the ORSA is not a tool designed for disclosure - recognise limitation due to not sufficient availability of high quality data and lack of standardised methods We caution in particular about creating to high expectations about the power of scenario analysis to create additional necessary input for decisions. Therefore, we would currently not support further steps that require companies to build up modelling capability for better managing physical risks. In our view this should also not be the ultimate goal for a longer term action plan. However, the focus should be on integration of climate change for existing risk management processes and tools, e.g. to address potential gaps that might currently exists.	
241	EIOPA Insurance and Reinsurance Stakeholder Group	Q11	No	First of all, the principle of proportionality in Solvency II focuses on the nature, scale and activity of the risks inherent to an insurer business, and not simply to its overall size. In any case, there is not much distinction made between small-, medium- and large-sized undertakings. While each insurer should decide whether the ORSA is the right instrument to capture climate change risks that can materialise over a longer time frame, the Opinion sets the expectations on small undertakings too high. It cannot be expected that small and medium sized undertakings have the same resources for performing the	Noted. The important aspect is the materiality of the risk. EIOPA is not prescribing in the opinion that companies have to systematically run quantitative analysis. The Opinion only specifies that CAs should expect

				same sophisticated analyses as other undertakings. Moreover, the burden and costs would be disproportionate for undertakings of all sizes for which the targeted risk is non-material. A simple and proportionate approach is needed. For companies with no material exposure to climate risk, this means that it should be possible not to prepare scenario analyses at all. A qualitative assessment, with the possibility to use scenario analysis, should be sufficient in this case and equally valuable for the analysis in the ORSA. Considering that the purpose of the ORSA is to model the undertaking's own risks, it is of utmost importance to allow undertakings to develop and apply own risk assessment methodologies without introducing uniform requirements that cannot take into account geographical specificities related to climate change risk and reflect the undertaking's individual risk situation adequately. Finally, we find that the issue is less the proportionality in relation to company size, rather the materiality assessment of climate change risks and the relevance of the flexibility to select scenarios and appropriate quantification in line with an insurer's own practices and modelling. As stated before, while we agree that climate change is a key risk across our industry, EIOPA's efforts to improve its assessment and ensure a proper integration of climate change analysis in the ORSA should not come at the cost of increasing prescriptiveness in the ORSA process. Undertakings should have the flexibility of appropriately addressing climate risks according to their own ORSA process.	undertakings, which conclude that climate change is not a material risk, to provide an explanation as to how that conclusion has been reached.
242	FERMA (Federation of European Risk	Q11	No	A proportionate approach is needed since the materiality of climate risks differs across entities and may change over time. Insurance companies that do not identify significant	Agreed. EIOPA's expectations to CAs on the supervision of the

	Management Associations)			climate risks in their risk profile should not be forced to use climate scenarios.	integration of climate change risk scenarios by (re)insurance undertakings in their ORSA apply a risk-based and proportionate approach.
243	AMICE	Q11	No	There is not much distinction as to how small, medium and large undertakings should integrate climate change risks in their ORSA. The EIOPA's Opinion sets the expectations on small undertakings too high and is lacking proportionality in broad terms as mentioned under our answer to question 10.	Noted. The key factor is the materiality of the risk as even a small company could be highly impacted by climate change risks. EIOPA has added a paragraph mentioning that going forward, EIOPA is considering developing and providing optional guidance for companies regarding climate scenario design and specifications.
244	AIR Worldwide	Q11			
245	Unipol Group S.p.A.	Q11	No	We think that projecting balance sheets over decades require a significant effort; more simplification should be adopted in the first years of climate change stress adoptions to give participants the time to understand climate risks and adapt their processes.	Noted. EIOPA understands that performing these tasks are challenging. Going forward, EIOPA is considering developing and providing optional guidance for companies regarding climate scenario design and specifications.

246	PIU - Polish Chamber of Insurance	Q11	No	In PIU opinion the burden and costs would be disproportionate for undertakings of all sizes for which the targeted risks are non-material. A simple and proportionate approach is definitely needed. Considering the resources and the data required for the development of such complex analyses, reinsurance companies, pools of insurers or associations could support carrying out this task in cooperation with science. The expectations are set too high especially for small and medium size insurers, which cannot allocate such a huge amount of resources to such complex analyses and relying on external providers or consultants to comply with it would be counterproductive. More time is needed to build the insurers capacity to conduct such complex exercises and result in a meaningful outcomes.	Noted. The main factor to consider is the materiality of the risk and not the size of the company. EIOPA agrees that there is a clear need to develop more practices around climate change scenarios. Going forward, EIOPA is considering developing and providing optional guidance for companies regarding climate scenario design and specifications.
247	EY	Q11	Yes	In matters of proportionality the question again needs to revert to consideration of whose risk and outcomes are in question; As such where the consideration is of micro prudential risk the near term considerations should be applied in the ORSA without adaptation; There is no reason why any undertaking should be exempt. Where however, macro prudential risk is a consideration then matters of proportionate impact on the wider financial service sector pertain and the range, breath and time horizons are extended may be reserved for those who pose either a systemic impact or otherwise allow for sufficient sector wide coverage as to ensure an aggregate perspective can be analysed. This approach of market coverage is the framing we commonly see in stress test events. For matters of an ultra-long term nature it is perhaps proportionate to consider that through the lens of impact on society as such the considerations may best be	Noted.

				considered through the lens of a Group wide analysis, rather than an undertaking lens and reserve the same for the larger groups, whether those within the scope of IAIG or of a systemic determination or some other target industry coverage.	
248	Partnership for Carbon Accounting Financials	Q11	Yes		
249	German Insurance Association	Q11	No	The proportionality principle must hold for assessing climate change risks as well as for other risks. The significance and materiality of the risk is crucial. Generally, it cannot be expected that small and medium sized undertakings have the same resources for performing the same sophisticated analyses as other undertakings. A simple and proportionate approach is needed. It is not evident how such an approach could look like considering the expectations mentioned by EIOPA in the draft Opinion. Reinsurance companies, pools of insurers or associations could help developing scenario analyses in co-operation with science.	Agreed. Materiality of the risk is the key element to consider. EIOPA agrees that it is crucial to further develop scenario analysis.
250	Actuarial Association of Europe	Q11	No	We highly support the need for focus in this area and welcome the general thoughts provided in this draft opinion. The "at least two scenarios" approach is proportionate. But the draft opinion seems to be slightly biased towards a complex first implementation and unrealistic requirements for quantitative risk analyses and risk assessments, before experience is built up in the sector. This approach could lead to both the unnecessary use of resources, removal of focus on more important risks and incorrect conclusions from lack of experience of modelling risks. Such an exercise requires significant work and costs (data,	Noted. Going forward, EIOPA is considering developing and providing optional guidance for companies regarding climate scenario design and specifications.

				expertise) that can be disproportionate for small entities and even for large ones if the description of the risks/impacts is not sufficiently concrete. The expectations will thus be a large burden especially on firms that lack the relevant expertise. If all firms are required to follow prescriptive requirements without the relevant expertise or resources, the quality of output may be impacted. In that sense, more guidance on para 3.14 where an initial screening could take place and be discussed with the CAs before effective implementation would reduce the costs. In addition to the support provided by annex 5, additional guidance on simplifications would be welcome with possible levels of complexities and evolution through time. Some further views: Variety of types of firms: As regards non-life firms generally (and particularly captives or subsidiaries) the expectations go beyond what would be expected as regards time horizon and strategic control. Materiality: The issue is arguably more about materiality than proportionality (i.e. more pertinent that a materiality assessment of climate change risks is performed than a broader assessment based on company size). That said in order to assess materiality, some level of assessment would initially be needed before a more significant commitment of time, resources, infrastructure etc. Appropriateness of high focus: Climate change risks are systemic. The nature, scale and complexity of climate change risks inherent in a (re)insurance undertaking's business may be disproportionate to the nature, scale and	

				complexity of other risks inherent in its business. In that context it seems appropriate that there is little specific guidance on proportionality. We recommend treading lightly ensuring progress in a joint effort between undertakings and authorities.	
251	UAB "SB Draudimas"	Q11	No	As the requirements for both short-term and long-term evaluation do not depend on the size of the company, we must note that the ability of small companies to devote additional resources to long-term evaluation is very limited.	Agreed. Going forward, EIOPA is considering developing and providing optional guidance for companies regarding climate scenario design and specifications.
252	JBA Risk Management Limited	Q11	Yes		
253	Moody's ESG Solutions	Q11	Yes	We generally agree that the efforts involved will scale with the size of the undertaking. That said, common gaps in technical capabilities exist and would be most efficiently addressed through industry initiatives like the NGFS scenarios.	Noted.
254	Insurance Europe	Q11	No	First of all, the principle of proportionality in Solvency II focuses on the nature, scale and activity of the risks inherent to an insurer’s business, and not simply on its overall size. In any case, there is not much distinction made between small-, medium- and large-sized insurers. While each insurer should decide whether the ORSA is the right instrument to capture climate change risks that can materialise over a longer time frame, the opinion sets the expectations on small undertakings too high. It cannot be expected that small and medium sized undertakings have the same resources for performing the same sophisticated analyses as other larger undertakings. Moreover, the burden and costs would be disproportionate	Noted.

				for undertakings of all sizes for which the targeted risk is non-material. A simple and proportionate approach is needed. Considering the resources and the data required for the development of such complex analysis, reinsurance companies, pools of insurers or associations could support carrying out this task in cooperation with science. Considering that the purpose of the ORSA is to model the undertaking's own risks, it is of the utmost importance to allow undertakings to develop and apply own risk assessment methodologies without introducing uniform requirements that cannot take into account geographical specificities related to climate change risk and reflect the undertaking's individual risk situation adequately. For companies with no material exposure to climate risk, this means that it should be possible not to prepare scenario analyses at all. A qualitative assessment, with the possibility to use scenario analysis, should be sufficient in this case and equally valuable for the analysis in the ORSA. In general, the industry reiterates that all undertakings should be given sufficient flexibility to reflect their specific business model and integrate sustainability risks in their relevant processes and business decisions. Proportionality means that, when an undertaking's risk exposure is not material, it should not be expected to perform complex quantitative climate change risk analysis in its ORSA. The opinion states this point with respect to materiality, but this should more clearly elaborated to provide better supervisory guidance and avoid unnecessary burdens for insurers. Proportionality should also consider a geographic diversification component. The opinion makes the implicit assumptions that small insurers are less geographically diversified than large ones with consequences on their exposure climate change risk. This exposure to climate	

				change risk is primarily related to portfolio concentrations rather than size.	
255	CRO Forum	Q11	No	The issue is less the proportionality in relation to company size, rather the materiality assessment of climate change risks and the relevance of the flexibility to select scenarios and appropriate quantification in line with an insurer's own practices and modelling. As stated before, while we agree that climate change is a key risk across our industry, EIOPA's efforts to improve its assessment and ensure a proper integration of climate change analysis in the ORSA is supported but should not come at the cost of increasing prescriptiveness in the ORSA process. The strengths of the ORSA as an own assessment rather should be leveraged. As such, undertakings should continue to have the flexibility of appropriately addressing climate change related risks, or any other risks for that matter, in governance, risk management and in particular in ORSA processes and results based on the materiality of climate risks in their risk profile and using the approaches and scenarios relevant for their respective company.	Noted.
256	Insurance Ireland	Q11	No	No. There is not much distinction between small-, medium- and large-sized undertakings. While each insurer should decide whether the ORSA is the right instrument to capture climate change risks that can materialise over a longer time frame, the opinion sets the expectations on small undertakings too high. Considering the specific risk profile of each undertaking, it is of utmost importance to allow undertakings to develop and apply own risk assessment methodologies without introducing uniform requirements that cannot take into account geographical specificities related to climate change risk and reflect the undertaking's individual risk situation adequately. For small-sized companies with simple risk profiles, this means that it should be possible not to prepare scenario analyses at all. A qualitative assessment,	Agreed, if the risk has been assessed as non-material companies are not expected to conduct complex climate change scenarios.

				with the possibility to use scenario analysis, should be sufficient in this case and equally valuable for the analysis in the ORSA. In general, the industry reiterates that all undertakings should be given sufficient flexibility to reflect their specific business model and integrate sustainability risks in their relevant processes and business decisions. When an undertaking's risk exposure is not material, it should not be expected to perform complex quantitative climate change risk analysis in its ORSA. The opinion states this point with respect to materiality, but this should more clearly elaborated to provide better supervisory guidance and avoid unnecessary burdens for insurers. Equally important, proportionality should explicitly include geographic diversification. The opinion makes the implicit assumptions that small undertakings are less geographically diversified than large undertakings and that this may increase their exposure to climate change risk. However, this concentration is exactly one of the reasons why small-sized companies may be disproportionally exposed to climate change risk. On one hand, while large companies might have more material exposures on average, they usually are better equipped to mitigate and deal with climate risks. On the other hand, small companies, more numerous and with fewer resources and incentives (eg due to a lower public scrutiny) to deal with climate change in depth, might be less equipped to deal with such risks.	
257	Swiss Re	Q11	No	The issue is less the proportionality in relation to company size, rather the materiality assessment of climate change risks. As stated before, while Swiss Re agrees that climate change is a key risk across our industry, EIOPA's efforts to improve its assessment should not come at the cost of increasing prescriptiveness in the ORSA process.	Agreed. The materiality of the climate change risk is the key factor to consider.

265	EIOPA Insurance and Reinsurance Stakeholder Group	Q12	Yes	We would highlight that it is worth reminding that climate risks materialize over a long-term horizon, which exceeds the three-year period generally used under ORSAs or other solvency monitoring tools that might be thought of, including macro prudential stress tests. One simple solution may be to perform climate risk analyses which will be adjusted on an ongoing basis and simply report this in the ORSA with an update if any is needed each year, or obviously in case of a significant change in risk profile. EIOPA should also highlight that the results of climate scenario analyses might not be fit for the solvency assessment for the following reasons: • There are many uncertainties relating to climate change itself, which are difficult to rationalise through the macroeconomic and financial hypothesis and shocks commonly used. • Climate scenarios analyses should therefore not be used to assess the solvency of insurers as this might result in ill-informed market signals and be inconsistent with a stable transition to greater financial sustainability. • EIOPA should make of use of the right means to achieve its goals. Scenario assessments are not always the best solution. "What if" assessments and qualitative analysis can be equally useful. We also find that it is important to make it clear that climate risk analysis is a forward looking analysis of an emerging/future risk, distinguishing itself from the solvency calculation, that for example already exists for Catastrophe modelling under Solvency II.	Noted. Long-term climate change developments beyond the planning horizon may influence current strategic planning, which would not be captured by simply updating short-term climate change risks. Uncertainty is inherent in risk management, not a reason not to assess and take into account the risks. Long-term analysis using 'what if' scenarios constitutes a trusted and mainstream tool to do so.
266	FERMA (Federation of	Q12	Yes	FERMA is a strong believer in the need for businesses to consider sustainability as part of their overall risk	Noted.

	European Risk Management Associations)			management framework and business planning. In the context of this consultation, depending on the scale, nature and complexity of the business, FERMA sees value in encouraging insurance undertakings' to consider climate scenarios on their specific business. However, enforcing a prescriptive and inflexible requirement to take on board highly standardised scenarios within the ORSA is likely not the best approach to do this. Solvency II already allows insurers to efficiently deal with sustainability risks be it through the market or catastrophic risk sub-modulesm for instance. Capturing these risks should not require additional standardised methodologies beyond balanced and specific adjustments. Lastly, if EIOPA is to go down the route of enforcing strict climate scenarios to be carried out within the ORSA, the Principle of Proportionality (PoP) should apply. The nature, scale and complexity of the undertaking should be considered, before making a blanket application whereby the costs of doing so may outweigh the benefits.	The Opinion makes already clear that undertakings may develop their own long-term scenarios and/or build on existing one.
267	AMICE	Q12	Yes	GENERAL COMMENTS ORSA should remain an own risk assessment Contrary to macroprudential supervisory monitoring by which a common climate scenario trajectory with key parameter settings might be useful to explore climate change risks across the insurance industry sector we deem it essential that scenarios within an ORSA exercise be specific to the undertaking concerned and only be envisaged if their impact is material to the insurer in the short and longer term, particularly if the decision is at the discretion of the insurer (as described in the next section).The decision to perform forward looking analysis	Noted. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. It has also been clarified that undertakings without

				on climate change risks in the ORSA should remain at the discretion of the insurer and be relevant to its own risk situation. The insurer should also decide on the best way to undertake such an exercise, both in terms of time horizon and granularity. In its attempt to assess climate change impacts under the ORSA, an insurer must rely on its own views and understanding. This is all the more necessary that there are strong unknowns and uncertainties in the evolution and impacts of climate change which may produce very different outcomes. Additionally, most items are interdependent and some approaches appear artificial. Time horizon It is worth reminding that climate change risks materialize over a long-term horizon (e.g. physical risks of climate change will only take place over decades) which exceeds the three-year period generally used under the ORSAs or other solvency monitoring tools including macro prudential stress tests. Please also refer to the feedback of the industry trade associations on the stress testing methodology. Research on Climate change risk There are an increasing number of workstreams set by regulators and/or supervisors across jurisdictions to investigate climate change risks and the implications that these may have on the insurance sector. There is no doubt that climate change will have a global impact on society; the climate research is therefore only efficient if performed centrally by dedicated experts, be it from universities, research institutions, reinsurers etc. Climate science research should identify the specific risk factors to the insurance industry and provide clarity on specific risk threats and their applicability provided it will impact	any material long-term exposures do not have to conduct the long-term scenario analysis. Some level of common expectations is justified as few undertakings assess climate change risk scenarios in their ORSA, also in the long term. Solvency II requires undertakings to consider in their ORSA all risks they face in the short and long term and to which they are or could be exposed, i.e. including climate-related risks. Long-term climate change developments beyond the planning horizon may influence current strategic planning.

				geographic regions and perils differently. Supervisors and insurers will need to adjust accordingly.	
268	AIR Worldwide	Q12	No		
269	Unipol Group S.p.A.	Q12	Yes	Undertakings may be allowed to assess the impact of climate change on their business using an index based approach in their ORSA exercise. The index should be related to the climate change, and must be developed and maintained by a sound research organization. A possible example may be the ACI (https://actuariesclimateindex.org/home/) or the European counterpart (E3 CI) developed by the IFAB.	Noted.
270	PIU - Polish Chamber of Insurance	Q12	Yes	Scenario assessments are not always the best solution. Likelihood and severity of natural catastrophes should be estimated by experts in the field and used for recalibrating capital requirements over time.	Noted.
271	EY	Q12	No		
272	Partnership for Carbon Accounting Financials	Q12	No		
273	German Insurance Association	Q12	Yes	The insurance industry would have preferred an informal, bilateral and voluntary exchange between insurers and NCAs to discuss aspects like feasibility, data availability, proportionality etc. The results of such a dialogue could have been better tailored to the industry. We are worried that the discussed climate risk scenario analysis would cause enormous efforts and costs, in particular in the case of quantitative assessments, which are not proportionate to the limited meaningfulness and usefulness of the results.	Noted. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with

					a qualitative analysis and subsequently evolve quantifications over time.
274	Actuarial Association of Europe	Q12	Yes	The varied nature of the insurance industry should be acknowledged, as regards purpose (e.g. captives), time horizon of existing liabilities (notably non-life versus life), level of influence over long term strategic direction (e.g. subsidiaries, captives). Given the high level of uncertainty of the long term scenarios, the absolute numerical results of individual long term scenarios should be considered with extreme caution. The focus should rather be on sensitivities to scenarios and key assumptions. We would like to better understand how the methods provided in the scenario guidance respond to following issues : - Sensitivity differences to transition risks within sector - Point in time assessment might not reflect current market pricing of transition risk. Example: sensitivity might be overestimated in case market has already priced in high level of transition risk/losses. - How to ensure the actual portfolio of an insurer reflects a similar sensitivity to transition risk with the reference portfolio used for the study? A broad engagement by (re)insurers with climate risk, where material, is important. Therefore it is suggested that the guidance re ORSA scenarios should be appropriately placed in an overall framework encompassing business strategy, disclosures (public and private), internal assessments such as business planning and ORSA	Noted.

				scenarios. The question arises of whether ORSA assessments based on the current liability profile (irrespective of inclusion of planning horizon new business) will give an adequately broad picture of the impact of climate change on (re)insurer business models.	
275	UAB "SB Draudimas"	Q12	No		
276	JBA Risk Management Limited	Q12	Yes	Care is needed throughout regarding use of the word "scenario". This can be applied to climate scenarios (change in temperature, etc.), or adaptation scenarios (e.g. with/without construction of new properties, flood defences, etc.), or - in common insurance parlance - simply as a type of analysis (scenarios analysis as opposed to probabilistic analysis).	Noted.
277	Moody's ESG Solutions	Q12	No		
278	Insurance Europe	Q12	Yes	-Insurers note that EIOPA should strike the right balance regarding the recommendations of the use of climate change scenarios in the ORSA. Moreover, it should highlight that the results of climate scenario analyses might not be fit for the solvency assessment for the following reasons: >There are many uncertainties relating to climate change itself, its impact on the environment and its complex interactions with economic and social systems, which are difficult to rationalise through the macroeconomic and financial hypothesis and shocks commonly used. >Climate scenarios analyses should therefore not be used to assess the solvency of insurers as this might result in ill-informed market signals and be inconsistent with a stable transition to greater financial sustainability. Climate scenarios "differ fundamentally – in both nature and usage – from financial stability-oriented scenarios. While the latter are meant to capture plausible but low probability	Noted. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time.

				adverse scenarios, scenarios in a climate context represent probable representations of future evolution profiles of greenhouse gas concentrations and various adaptation/mitigation strategies associated with them (IPCC). The common use of the word 'scenario' should not obscure the differences in the practice of "scenario analysis" (source: Banque de France, Allen et all, Climate-Related Scenarios for Financial Stability Assessment: Application to France) -Insurers should examine all (emerging) risks they are exposed to. EIOPA should: >Make use of the right means to achieve its goals. Scenario assessments are not always the best solution. Likelihood and severity of natural catastrophes should be estimated by experts in the field (such as (re)insurers) and used for recalibrating capital requirements. >Keep it as simple as possible. Adding granularity and complexity does not guarantee better results. It would probably only distract from overview and insight. Extensive use of approximations and simplifications could keep the workload in par with added value. Multi period stress testing is too demanding. In most cases a qualitative approach would suffice, at least as a starting point. >Keep the ORSA 'own'. Prescribing stress tests in a uniform format and narrative will unnecessary narrow the assessments, excluding alternative narratives and possibly, ignoring local circumstances and vulnerabilities. >Generally, the insurance industry would have appreciated a coordinated approach with NCAs to discuss aspects like feasibility, data availability, proportionality etc. The results of such a dialogue could have been better tailored to the industry needs.	The Opinion makes already clear that undertakings may develop their own long-term scenarios and/or build on existing one.

				Please also refer to the Insurance Europe comments on stress testing methodology: https://www.insuranceeurope.eu/insurers-see-merit-climate-change-stress-testing-not-eu-wide-liquidity-or-multi-period-stress-tests.	
279	CRO Forum	Q12	Yes	3.12. – Caution is necessary as conclusive scientific understanding of the impact of climate change on the individual perils (e.g. hail) and its interplay with other macro trends makes it difficult for companies to measure or factor-out the effects. Even the short-term quantification may not be straightforward. 3.23. – We see the major impact for the integration of climate change related risks for pillar 2, we do not see a need to change the one-year horizon of the SCR. 3.24. – We would dispute the implication that the "abundant expertise available within the industry" will easily facilitate the incorporation of climate-change trends in the respective risk management frameworks. This is potentially misleading, as natural-catastrophe models are intended to look into the short term only and available vendor models would not have climate-change signals and macro trends more broadly incorporated. Annex 1. 1.6. It is not clear what EIOPA seeks to do in light of this information. We would caution against inferring that analyses that were done seldom should be done more often, as companies will test what is relevant to them. Annex 5. Translation of changes in temperature in frequency &	Noted. Agreed, reference to abundant expertise has been deleted. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. The Opinion makes already clear that undertakings may develop their own long-term scenarios and/or

				severity of perils is not a straightforward exercise. There is high level of dependency on scientific advances. Overall, it feels annex 5 is too detailed and prescriptive in the context of the ORSA. As a concluding remark, we believe climate risk is important and the ORSA is certainly a suitable area for further climate change impact analysis. Insurers are already doing a lot of work in this area in general and the integration into the ORSA can best build on this. In this light, we would suggest that the best path is to encourage insurers to integrate it in their ORSA rather than trying to prescribe and standardize as this may be counterproductive in terms of effectiveness. Ensuring the ORSA keeps pace and leverages off insurer best practices in this area is likely also the best route for any macro analysis EIOPA would like to perform. As pointed out on several occasions, the relevance and accuracy of detailed quantitative scenarios that span decades should not be overstated or seen as the holy grail. Rather, the angle to build up further analysis in the ORSA based on developing practices is more likely to provide the broader insights EIOPA may be looking for. Companies already do a lot of work in the area of climate change analysis and this will continue. Therefore, in general, any guidance should lay out reasonable principles that companies can use and implement into their processes to achieve the maximum impact rather than focusing on specific scenarios and modelling requirements as this could create a false sense of accuracy and security. Especially if the models and processes in place do not support such requirements. Also, in light of scientific and company internal discussions and developments it must be recognized that there is not yet a	build on existing one.

				clear finalized solution on how to address the different aspects of climate change and embedding it in a reasonable way into the steering system and corporate governance. Developments and improvements by insurers are made in this area as we speak, and good regulation should support and build on these developments.	
280	Insurance Ireland	Q12	Yes	• Insurers note that EIOPA should strike the right balance regarding the recommendations of the use of climate change scenarios in the ORSA. Moreover, it should highlight that the results of climate scenario analyses might not be fit for the solvency assessment for the following reasons: - There are many uncertainties relating to climate change itself, its impact on the environment and its complex interactions with economic and social systems, which are difficult to rationalise through the macroeconomic and financial hypothesis and shocks commonly used. - Climate scenarios analyses should therefore not be used to assess the solvency of insurers as this might result in ill-informed market signals and be inconsistent with a stable transition to greater financial sustainability. Climate scenarios "differ fundamentally –in both nature and usage – from financial stability-oriented scenarios. While the latter are meant to capture plausible but low probability adverse scenarios, scenarios in a climate context represent probable representations of future evolution profiles of greenhouse gas concentrations and various adaptation/mitigation strategies associated with them (IPCC). The common use of the word 'scenario' should not obscure the differences in the practice of scenario analysis" (source: Banque de France, Allen et all, Climate-Related Scenarios for Financial Stability Assessment: a Application to France).	Noted. Uncertainty is inherent in risk management, not a reason not to assess and take into account the risks. Long-term analysis using 'what if' scenarios constitutes a trusted and mainstream tool to do so. Long-term climate change developments beyond the planning horizon may influence current strategic planning. The Opinion has been amended to enhance flexibility of doing long-term scenario analysis, to clarify the identification of material risk exposures and to foster an approach proportionate

				- Climate risks materialise over a long-term horizon, which exceeds the three-year period generally used in solvency assessment. • From a financial point of view, it would be useful to have a market in which financial derivative instruments linked to climate changes are listed. A renewable natural resource niche market still exists nowadays, but the accessibility of such resources is not for all, and they are threatened by climate changes. Let's consider the weather derivative market, too, which prices the temperature changes of the early 2000s. It is a liquid and developed market, which can give a price to the risks related to climate changes, also allowing an implementation of hedging strategies. • Insurers should examine all (emerging) risks they are exposed to, like loss of biodiversity and mass extinction, pollution, acidification of oceans. EIOPA should - make of use of the right means to achieve its goals. Scenario assessments are not always the best solution. Likelihood and severity of natural catastrophes should be estimated by experts in the field (such as re-insurers) and used for recalibrating capital requirements. - Keep it as simple as possible. Adding granularity and complexity does not guarantee better results. It would probably only distract from overview and insight. Extensive use of approximations and simplifications could keep the workload in par with added value. Multi period stress testing is too demanding. In most cases a qualitative approach would suffice, at least for starting. - Keep the ORSA 'own'. Prescribing stress tests in a uniform format and narrative will unnecessary narrow the assessments, excluding alternative narratives and possibly, ignoring local circumstances and vulnerabilities.	to the risks. This includes the possibility for undertakings without any prior experience to start with a qualitative analysis and subsequently evolve quantifications over time. The Opinion makes already clear that undertakings may develop their own long-term scenarios and/or build on existing one.

281	Swiss Re	Q12	Yes	3.12. – Caution is necessary as conclusive scientific understanding of the impact of climate change on the individual perils (e.g. hail) and its interplay with other macro trends makes it difficult for companies to measure the effects. Even the short-term quantification may not be straightforward. 3.23. – We see the major impact for the integration of climate change related risks for pillar 2, in particular we do not see a need to change the one-year horizon of the SCR. 3.24. – We would dispute the implication that the "abundant expertise available within the industry" will easily facilitate the incorporation of climate-change trends in the respective risk management frameworks. This is potentially misleading, as natural-catastrophe models are intended to look into the short term only and available vendor models would not have climate-change signals and macro trends more broadly incorporated. Annex 1. 1.6. It is not clear what EIOPA seeks to do in light of this information. We would caution against inferring that analyses that were done seldom should be done more often, as companies will test what is relevant to them. Annex 5. Translation of changes in temperature in frequency & severity of perils is not a straightforward exercise. There is high level of dependency on scientific advances.	Noted. Agreed, reference to abundant expertise has been deleted.