Own Risk Solvency Assessment (ORSA)
for the Insurance Regulatory Authority of Nepal and Nepalese Insurance Market

Introduction.

This document aims to help the Board, the Senior Management and key staff of the insurers, and the Insurance Regulatory Authority of Nepal (Beema Samiti) to:

- understand the current and projected risk profile of the insurer and its key drivers
- understand the adequacy of capital available to support its business plan
- understand any material changes to risk profile
- understand risks not covered by regulatory capital
- understand key drivers of the balance sheet
- identify potential management actions to mitigate risk.

This document intends to be an intuitive and simple toolkit to provide

- ✓ capacity building for insurers and reinsurers on the '*own risk and solvency assessment*' (ORSA),
- ✓ advice to insurers and reinsurers for the implementation of the ORSA,
- ✓ guidance for the usual operation of the ORSA, and
- ✓ capacity building for the supervision of the ORSA within a risk-based framework.

The toolkit is addressed to insurers, reinsurers and supervisors implementing ORSA for the first time, and to those insurers with a low-risk profile that do not need to adopt more complex versions of the ORSA. It is also usable for the rest of insurers as a tool of reference.

> Hereinafter, reference to insurers also applies to reinsurers unless otherwise stated. Reference to the Insurance Regulatory Authority encompasses both the regulatory and the supervisory activities of Beema Samiti.

The toolkit prioritizes the **simplicity and proportionality** of its content considering the current features of the Nepalese insurance market. For that purpose, there is a trade-off among, on the one hand, accuracy and extensive explanations, and on the other hand, intuitive understanding, and pragmatic and manageable approaches[1].

> For the time being the toolkit focuses on the ORSA at solo entity level, both belonging to a group or not. This does not preclude further toolkit referred to the ORSA group level with more elaborated considerations about the group specific risks. This might be relevant once the Nepalese market achieves a robust usual operation of the ORSA at solo entity level.

To facilitate the understanding of the explanations, section I.J of Chapter I contains a glossary with the definitions of the main terms used throughout this toolkit.

[1] Each section of the tool is drafted to be read either in isolation or in conjunction with the rest of related sections. This explains why some essential statements are repeated throughout the text.

Furthermore, this toolkit approaches ORSA process as a **continuous learning exercise**. This means that insurers are expected to improve their ORSA process in each financial year. Therefore, the key issue is setting good fundamentals and starting to implement and run the process.

Needless to say, this toolkit will be improved with the lessons learnt from experience and the dialogue with insurers and reinsurers.

Status of this document.

The version of this document released in August 2022 has the nature of Consultation Paper of Beema Samiti. While Beema Samiti does not expect major changes in the substance of the document (since the substance is directly based on generally accepted international standards) the contributions of the insurers, reinsurers and professionals related with the insurance sector (providers of the internal audit function, actuaries, auditors, academia…) will likely help to improve the clarity, completeness and practicality of the ORSA tool. Beema Samiti is especially interested in exploring the application of the proportionality principle.

This ORSA tool is subordinated to the regulatory provisions on risk management of the Risk-Based Capital and Solvency Directive, 2022 (2078), to the Directive on the ORSA of insurers that Beema Samiti intends to issue in early 2023[2] and to the Risk Management Guidelines for Insurance Company, 2019 (2076). The content of this ORSA toolkit does not override any regulatory provision or previous guideline on risk management for insurers.

Notwithstanding, Beema Samiti expects that insurers will implement the ORSA by applying this tool. The insurer may follow in a specific area an alternative approach provided the insurer is able to explain the rationale, according to its specific risk profile and characteristics, on why such alternative approach is better in achieving the goals, the features and the deliverables of the ORSA.

> Neither the ORSA requirement nor the Insurance Regulatory Authority nor this tool impose a specific organizational structure to the insurer. **The insurer has complete freedom to organize its departments, business units, infrastructures provided the goals, deliverables and features of the ORSA process are achieved (further than the rest of elements of the good governance of an insurer).**

[2] Reflecting the main concepts and components of the ORSA, the necessary supervisory empowerments for Beema Samiti and the appropriate regulations for the supervision of the ORSA according to a risk-based framework.

Chapter I. Introductory questions on ORSA

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I.A. What is ORSA?

ORSA stands for '*own risk and solvency assessment*'. It is an **internal process of the insurer** (or insurance group) that involves all its activities and all levels of its staff.

The ORSA process aims at supporting the risk management system of the insurer by **providing a forward-looking assessment** (both quantitative and qualitative) of its current solvency position and its future solvency position under sufficiently severe stressed scenarios, considering all types of risks (hereinafter *ORSA assessment*).

> Where the insurer's solvency is at risk, the ORSA assessment should propose appropriate changes either in the risks taken or the capital resources or both.

ORSA process also aims at verifying **the consistency of the actual risk profile of the insurer with its business model**, and at contributing **to enhance a widespread risk culture and risk management within the insurer.**

Therefore, ORSA is an essential part of an appropriate risk management system (Enterprise Risk Management - ERM) of the insurer, and consequently, a necessary component of the good governance of the insurer.

> **The main addressees and beneficiaries of the ORSA process are the shareholders, the Board and the Senior Management of the insurer.**

The ORSA process and its methodologies should be tailored to the characteristics of the activities of each insurer, having also in mind the degree of development of the Nepalese insurance market.

> This means that the implementation and usual operation of the ORSA process (and hence its supervision) should apply the '*proportionality principle*'.
>
> The '*proportionality principle*' means that while the goals, the deliverables and the main features of the ORSA process remain everywhere, insurers should be allowed to achieve such goals, deliverables and features in a simpler manner depending on the risk profile of each insurer.

The assessment of the financial and solvency condition of the insurer produced by the ORSA process does not replace the *regulatory Risk-Based Capital requirement*. Furthermore, ORSA assessment cannot be considered in a systematic way to impose additional capital requirements.

> Nevertheless, where the insurer has not implemented its ORSA process or it has material flaws, the Insurance Regulatory Authority must apply appropriate remedial actions. Such actions should be scaled in a '*supervisory ladder*' according to the severity of the deficiencies (please, refer to section '*V.D. Supervisory ladder*' for further explanation).

It is important to note that the ORSA requirement focuses on goals, deliverables and features. Neither the ORSA requirement nor the Insurance Regulatory Authority impose a specific organizational structure to the insurer. **The insurer has complete freedom to organize its departments, business units, infrastructures,... provided the goals, deliverables and features of the ORSA process are achieved (further than the rest of elements of the good governance of an insurer).**

Sometimes expressions such as 'annual ORSA supervisory report' are used. This a shortened expression that should read 'report for the supervisory authority on the main features and findings of the ORSA process of the insurer during the last financial year'.

Therefore, ORSA is neither a process for the supervisor nor mainly a report.

The ORSA process is neither designed nor operated for the Insurance Regulatory Authority. Neither the ORSA process nor the regular ORSA supervisory report are subject to the approval of Beema Samiti.

Notwithstanding, the supervisory review of the ORSA process is a key component of a risk-based supervision. Furthermore, the supervision of ORSA is much more than the review of the 'ORSA supervisory report'.

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I.B. What are the goals of the ORSA process?

The high-level goals of the ORSA process for insurers may be summarized as follows:

- To contribute to the creation of a **widespread risk culture within the insurer**, that is, a culture about the necessity of taking into account any actual or emerging risk that may have a material impact, either in isolation or in conjunction with certain events or other risks.

  Guideline 4.2 of the Risk Management Guidelines for Insurance Company, 2019 (2076), is relevant on this respect.

- To make explicit **how all actual or emerging risks should be considered in the business model of the insurer**[3], in the strategic plans to achieve the business model and in the policies operationalizing the strategic plans in the usual activities of the insurer[4].

- **To assess both the current and the forward looking financial and solvency condition of the insurer** having in mind any actual or emerging risk that may impact on the insurer, thus beyond the *regulatory Risk-Based Capital requirement*[5]. This assessment should be both quantitative and qualitative and consistent with the business model adopted by the insurer.

- To contribute to the explicit consideration of the actual or emerging risks in the **decision-making processes** of the insurer[6].

- To contribute for a **robust integration** of risk identification, measurement, monitoring, management and reporting of risks in the procedures of the insurer[7].

  The primary and more immediate milestone of the ORSA process should be to achieve an adequate understanding of all the risks the insurer is exposed to. This refers to all levels of the insurer, from the Board to the merely operational staff.

  It is not expected that from the very first moment the insurer will implement sophisticated methodologies to measure risks, models which really are black boxes.

[3] Guideline 4.1 of the Risk Management Guidelines for Insurance Company, 2019 (2076). Section I.J Glossary of main terms explains the purpose and content of the *'business model'* that each insurer should define.

[4] Directive (8) Risk Management - paragraph (9) of Risk Based Capital and Solvency Directive 2022 (2078).

[5] Directive (8) Risk Management - paragraph (9) of Risk Based Capital and Solvency Directive 2022 (2078).

[6] Directive (8) Risk Management - paragraph (10) of Risk Based Capital and Solvency Directive 2022 (2078).

[7] Directive (8) Risk Management - paragraph (1) of Risk Based Capital and Solvency Directive 2022 (2078).

Rather, the expectation is that after being aware of all risks, the insurer will start with simple, manageable and understandable methodologies to measure and quantify risks, even if those methodologies provide approximations.

> *The 'measure' of a risk provides an estimate of the available capital resources that are necessary to offset the losses derived from the materialization of the risks with a targeted confidence level.*

The insurer's perception of risks in the regular runs of the ORSA process will lead in a natural way towards a better data quality and to the willingness of the Board to have more accurate methods to measure risks.

The complexity of those methods may increase as the capacity of the Board, the Senior Management and of the relevant operational staff is improved to fully understand the performance of the methods, its interlinks and its weaknesses. And to integrate the outcomes of those more advanced methods in the decision-making processes, since the 'use test' is one of the key performance indicators of the quality of the ORSA.

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I.C. Why ORSA in addition to regulatory Risk-Based Capital requirements?

The justification to require an ORSA process starts with the recognition that any standardised calculation of a risk-based capital requirement has inherent unavoidable limitations. This means that while a standard regulatory risk-based capital requirement is a necessary condition (a primary safety net), it is not sufficient by itself to achieve the goals of a risk-based framework.

The ORSA process is set up to overcome the main limitations of a standardised algorithm to calculate the risk-based capital requirement:

- Firstly, a standard risk-based capital requirement is designed to provide a reasonable expectation that the insurer will remain sound at a given time horizon with a predefined confidence level. But not all insurers (shareholders and Boards) have the same expectations, or wish to achieve the same confidence level, as not all insurance activities develop with the same time horizon.
- Secondly, a standard risk-based capital requirement captures the material quantifiable risks existing at market level, and it does this by applying algorithms with a limited complexity affordable on average by market participants. But an insurer may be exposed to risks that are not captured or are only partially captured in the standard risk-based capital requirement, and there are emerging risks or non-quantifiable risks that the insurer needs to consider. Furthermore, risk-based capital requirement is not always the best way to tackle with several of those risks.

Therefore, for most of insurers the *regulatory Risk-Based Capital Requirement* and the own entity's objectives are not necessarily identical.

The requirement for an ORSA process intends to provide good risk management incentives for a sound management of the entity's own objectives and to set up a supervision of the risk management system appropriate for the specific risk appetite of each insurer as reflected in its business model[8], strategic plans and policies.

Nevertheless, the ORSA assessment does not replace the *regulatory Risk-Based Capital requirements*.

> Although the amounts of the ORSA '*economic capital target*' and of the '*regulatory Risk-Based Capital requirement*' and the methods used to determine them may differ, an insurer should be aware of, and be able to analyse and explain, these differences. Such analysis helps to embed supervisory requirements into an insurer's ORSA and risk and capital management, so as to ensure that obligations to policyholders continue to be met as they fall due[9].

Consequently, the ORSA process delivers neither a new legally binding capital requirement nor an increase of the *regulatory Risk-Based Capital requirement*.

> Otherwise, beyond disincentivising insurers to set up a sound and prudent business model, there would be regulatory capital requirements with different confidence levels and time horizons, thus breaching the level playing field.

8 Section I.J Glossary of main terms explains the purpose and content of the '*business model*'.

9 IAIS. ICP 16, paragraph 16.13.2.

Nevertheless, where the insurer has not implemented its ORSA process or it has material flaws, the Insurance Regulatory Authority must apply appropriate remedial actions. Such actions should be scaled in a '*supervisory ladder*'. The supervisory measures should be scaled according to the importance of the **deficiencies in the governance of the ORSA**, ranging from recommendations or compulsory requirements to achieve certain outcomes up to the imposition of a capital add-on to the *regulatory Risk-Based Capital requirement*, or even the withdrawal of the license in the extreme case where the lack of capacity to run the ORSA process puts the protection of the interests of policy holders at risk (please, refer to the section '*V.D. Supervisory ladder*' for a detailed explanation).

Furthermore, the experience shows that allocating capital resources is not enough in itself to ascertain the current and future solvency of an insurer.

A robust governance and risk management is necessary, and such robustness requires to consider all risks in the decision-making process of the insurer. The ORSA policy, the ORSA process, the ORSA assessment and the ORSA reporting system guarantee that the insurer, ***at its own initiative****, will integrate in ongoing basis the relevant risks in their governance and decisions.*

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I.D. How many countries require ORSA?

The Insurance Core Principles (ICP) of the International Association of Insurance Supervisors (IAIS) lay down the '*own risk and solvency assessment*' as a core element of the risk management of insurers, and hence of their good governance. More precisely ICP 16 of the IAIS, sections 16.10 to 16.14 develop the supervisory expectations about the ORSA of each insurer.

The more advanced insurance supervisory jurisdictions already require insurers to have an effective functioning of the ORSA. And those insurance jurisdictions looking to evolve towards a risk-based framework are also implementing the ORSA, though having in mind the specific characteristics of each market and each insurer.

> *The effective functioning of the ORSA process is a golden standard of an appropriate good governance of insurers (and similarly for the banking sector and the investment firms as well).*
>
> *Nevertheless, the ORSA process may materialize through different approaches. A common feature of all jurisdictions is the so-called* 'proportionality principle'*, which means that while the goals, the deliverables and the main features of the ORSA remain everywhere, the low-risk profile insurers are allowed to achieve such goals, deliverables and features in a simpler manner.*
>
> *Link to the ICPs of the IAIS → https://www.iaisweb.org/page/supervisory-material/icp-on-line-tool*

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I.E. Who are responsible for ORSA?

The **members of the Board** of the insurer and the **Senior Management** are directly responsible for implementing the ORSA process and providing the conditions for its effective and efficient application in usual activities (IAIS ICP 16.11.1).

> The Board plays a crucial role in **owning** the ORSA process, **actively steering** the process and **embedding outcomes of the process into the overall decision-making framework**. The ORSA process should provide evidence of how the Board signs-off and plays those roles.

To materialize the above, the Board must approve two appointments:

- Firstly, to appoint one or several members of the Board to lead the actions that the Board must perform regarding the implementation of the ORSA, the usual operation of the ORSA process and a sufficiently challenging monitoring to ensure the effective functioning of the ORSA process.

  > Based on the proportionality principle, Beema Samiti will accept that the member(s) of the Board appointed for the ORSA may rely on an advisor external to the Board for the most technical and complex details of the ORSA assessment.

  Notwithstanding **all members of the Board remain responsible regarding ORSA for:**

  > verifying that the member(s) of the Board directly responsible for the implementation and functioning of the ORSA fulfils its obligations to the Board (e.g., presentation of regular ORSA and regular ORSA supervisory report…),
  >
  > verifying that the Board appropriately monitors that the internal audit function carries out adequate actions regarding the ORSA, and that the conclusions of the internal audit are independently reported to the Board, and
  >
  > any other provision about the ORSA included in the rules of functioning of the Board.

- Secondly, to be responsible for the usual operation of the ORSA process, appoint a dedicated person (hereinafter *ORSA operational owner*).

  > Based on the proportionality principle, Beema Samiti will accept that medium or small insurers both with a low risk profile, may allocate the *ORSA operational ownership* to the person or committee responsible for the Risk Management Function as per Guideline 5.9 of the Risk Management Guidelines for Insurance Company, 2019 (2076).

Since the ORSA process involves all departments/activities of the insurer and all levels of its staff, the Board must provide the appointees with a strong empowerment into the organization of the insurer.

Furthermore, the Board should identify the situations that might raise conflict of interests, setting appropriate mechanisms for their appropriate management.

The rest of the staff of the insurer and the providers of the internal audit function should have:

- a clear knowledge of their role in the ORSA process,
- an adequate training on the importance and on the goals, the deliverables and the features of the ORSA process of the insurer,
- a proactive monitoring to verify that the ORSA process is applied in the levels under her/his coordination, and
- a regularly updated information on the outcomes of the ORSA process[10].

Due to the necessary involvement of all levels of the staff of an insurer and all its activities, it is commonly said that ORSA is a 'holistic' process. The reason of such holistic approach is that the ORSA process only can achieve its goals if all persons of the staff proactively contribute, each one according to their roles and skills.

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[10] Paragraph (72) of Annexure V.1 Own risk solvency assessment of Risk Based Capital and Solvency Directive 2022 (2078).

I.F. Who benefit from the ORSA?

Shareholders, the Board and Senior Management of the insurers are the main beneficiaries of an appropriate functioning of the ORSA process.

How shareholders benefit from ORSA.

ORSA allows shareholders to put in relation the yield they obtain and the risks they bear to achieve that yield.

Furthermore, thanks to the comprehensive approach of the ORSA process, the medium and long-term shareholders can have a view of the threats that may jeopardize their investments, the realistic managerial actions foreseen in that respect and the impact on the financial and solvency condition of the insurer in case of a materialization of the risks.

ORSA considers all risks regardless of whether they are quantifiable or not, actual or emerging risks, they are short, medium or long-term risks, and whether they are captured or not in the *regulatory Risk-Based Capital requirement*.

Furthermore:

- ✓ An insurer with an effective functioning of its ORSA has a material higher value than otherwise.
- ✓ The ORSA avoids suffering unexpected losses or help to mitigate those that are unavoidable.
- ✓ Reinsurers provide better conditions and terms to those insurers with an effective functioning of the ORSA.
- ✓ The ORSA helps shareholders to monitor whether the couple [yield ; risk] provided by the Board and the Senior Management is consistent with the risk appetite and risk tolerances of the shareholders

How the Board and the Senior Management of the insurer benefit from ORSA.

The Board and the Senior Management of the insurer also obtain substantial benefits from the ORSA process. Following a 360 degrees perspective:

- □ From an upwards perspective, the functioning of the ORSA process requires as a precondition that shareholders provide the Board and Senior Management with a business model containing explicit and objective benchmarks regarding both the yield that shareholders target and the risks that those shareholders consider admissible to achieve that yield.

  Since the ORSA requires a comprehensive identification of all risks, the Board and Senior Management benefits from a clear framework to inform shareholders on the effectiveness and efficiency of the performance of the insurer according to the risk appetite that those shareholders have set up in the business model and the strategic plans of the insurer.

- In a horizontal dimension, the ORSA process captures all types of risks that may have a material impact in any of the activities of the insurer (either in isolation or in combination with certain events or other risks).

  Therefore, when interacting each other the members of the Board and of the Senior Management, all of them are informed and should consider the risks of both their own activity/department (the activity/department they are responsible for) and the risks of other interlinked activities/departments of the insurer.

  This helps everybody to speak the same language and to reach a mutual understanding of the challenges and limitations of the different activities/departments of the insurer.

- Finally, in a downwards direction, all levels of the staff of the insurer and the providers of the internal audit function should have

  (a) a clear knowledge of their role in the ORSA process,

  (b) an adequate training on the importance and on the goals, deliverables and features of the ORSA process and

  (c) a regularly updated information on the outcomes of the process.

  This creates a common risk culture within the insurer and a discipline in the relationships among the senior levels of the insurer and the mid-level and junior-level of the staff. That common risk culture and discipline means that the senior levels cannot behave arbitrarily, since they are obliged to link the actions required to the mid-junior levels of the staff with the outcomes of the ORSA process.

  Furthermore, the ORSA process makes that the mid and junior levels have a clear indication of which roles they should play in the risk management system, why their individual role is important and how their contribution helps to improve the quality and security of the activities of the insurer.

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I.G. Why ORSA is important for supervisors?

In a risk-based framework the goal is setting an efficient governance of the insurer in such a way that the insurer, **at its own initiative and embedded in its own business model**, applies in its usual operations the necessary actions to ascertain at the targeted confidence level that the insurer will remain sound and behave appropriately in a reasonable time horizon.

Therefore, the final goal is insurers behaving appropriately and remaining sound because it is in the essence of its business model, and not only or mainly because otherwise the insurer might fall under severe supervisory measures.

Under this approach, the good functioning of an ORSA process provides comfort to the supervisory authorities on the following key issues[11]:

- The insurer has elaborated its approach to any type of risks and have reflected in a written document (the *business model*) the risk appetite of the shareholders and the tolerances to deviations from the risk targets.
- The Board and the Senior Management of the insurer has a leading role in the implementation of a widespread culture within the insurer. Furthermore, there is a clear appointment of an owner of the usual operations and these operations, in particular the decision-making processes, consider appropriately all risks inherent to the different possible choices.
- The activities of economic and financial nature of the insurer are carried out having in mind the assessment of the actual and future financial and solvency condition of the insurer. Such assessment takes into account all risks consistently with the risk appetite and tolerances that the insurer has adopted in its business model, strategic plan and policies.
- There are effective safety nets (internal control system, internal audit,…) to assure the quality of the risk management system.

Having '*available capital resources*' above the '*regulatory Risk-Based Capital requirement*' is a necessary condition. But it is the good functioning of the ORSA process that ascertains to the maximum possible extent the current and future soundness of the insurer according to the business model the insurer has adopted.

This explains why ORSA is scheduled among the first steps towards a risk-based framework.

Implementing the ORSA and introducing the *regulatory Risk-Based Capital requirement* has a lot of commonalities and synergies, that provide material benefits to insurers.

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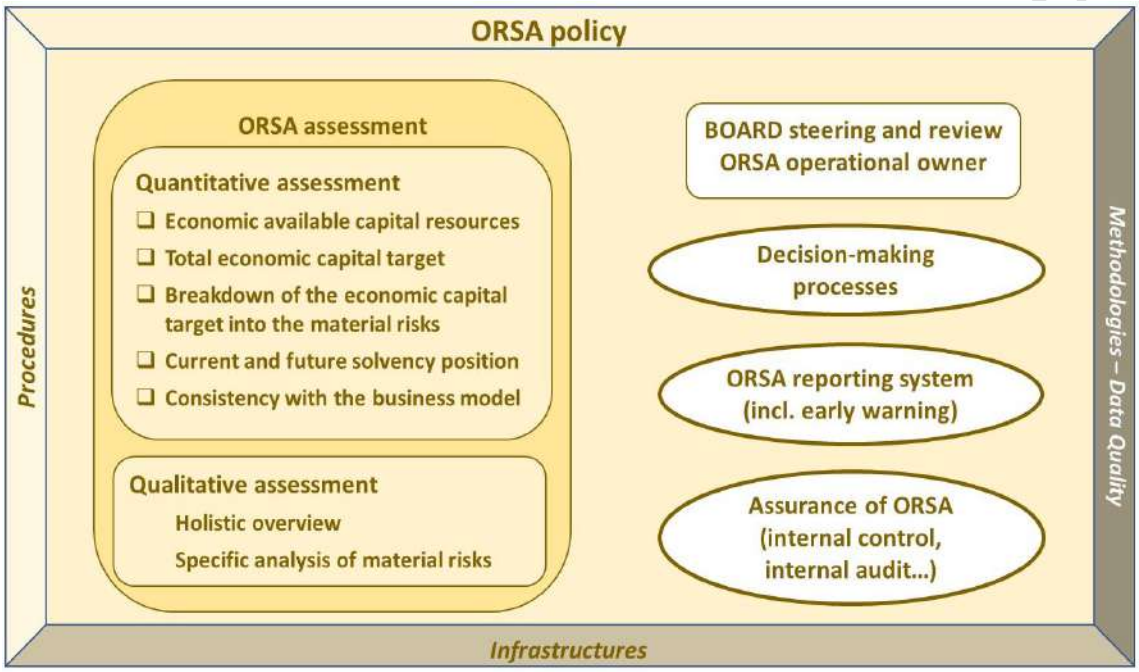
[11] Consistent with Guideline 3 of the Risk Management Guidelines for Insurance Company, 2019 (2076).

I.H. Which are the main deliverables of an ORSA process?

The main deliverable of the ORSA process is a forward-looking assessment of the current solvency position of the insurer and of its future solvency position under severe stress scenarios, considering all types of risks.

Further than the ORSA assessment, there are other deliverables that are necessary to produce and move that assessment throughout the governance of the insurer and obtain the outcomes of the ORSA process.

The following chart sketches the components and deliverables of the ORSA process.



Forward-looking assessment of the current solvency position of the insurer and of its future solvency position[12].

The baseline of the ORSA assessment is the unstressed solvency balance sheet, where assets and liabilities are valued according to the criteria laid down in the Annexure II of the Risk Based Capital and Solvency Directive 2022 (2078).[13] The baseline shall refer to the nearest possible date to the reference date of the ORSA assessment.

Time horizon of the ORSA forward-looking assessment.

[12] Annexure V.1 Own Risk Solvency Assessment of Directive Risk Based Capital and Solvency Directive 2022 (2078). See also IAIS ICP 16.13 and ICP 16.14.

[13] At this stage Beema Samiti does not consider appropriate to allow for a different baseline. This does not preclude the reassessment of this approach when in the future the ORSA be robustly implemented in the Nepalese market.

The ORSA assessment should be based on reliable projections. The general practice is to refer the ORSA assessment (the projections of the *economic capital target* and the *economic available capital resources*) to a period of three years since projections to longer terms are not sufficiently reliable.

When assessing the **current** financial and solvency condition of the insurer according to the business model, the ORSA assessment needs to take into account only the business considered in the calculation of the *regulatory Risk-Based Capital requirement*. Thus, it is possible to compare the solvency condition according to the ORSA with the 'regulatory' solvency condition *(the regulatory Risk-Based Capital requirement)*.

When assessing the **future** financial and solvency condition the ORSA assessment needs to take into account both the business in force and the future new business and also the realistic managerial actions envisaged in the risk management system. In any case the ORSA assessment should challenge the future business and the managerial actions under severe adverse scenarios, as referred to in section *'III.C Measurement of risks'.*

Nevertheless, when assessing the risks (e.g., determining the shocks to apply) the ORSA assessment should refer to a time horizon consistent with the duration of the insurance activities of the insurer, regardless of the time horizon targeted in the *regulatory Risk-Based Capital requirement* (i.e., the shock may be calibrated with reference to a period longer than the three years of projection).

For example, in the case of life insurance risks, the shocks to capture the risks regarding the longevity rates should refer to whole duration of the life insurance contracts. And similarly for other insurance lines of business or assets.

The ORSA assessment should elaborate at least five elements:

- An internal own assessment of the current capital resources available to absorb unexpected losses ('*economic available capital resources*') and of the foreseeable capital resources available in a future unfavourable situation of the insurer, estimated under prudent assumptions.

  This element should include both a quantitative assessment (amount of each type of '*economic available capital resources*' and thresholds) and a qualitative assessment (features and quality of the *'available capital resources'*).

  Where the ORSA process has an insurer's specific definition of '*available capital resources*', it is expected that such definition will be more restrictive than the regulatory definition (e.g., the insurer may not wish to use capital resources other than those of highest quality, or it may apply stricter thresholds to the capital resources that are not qualified as belonging to the highest quality).

  Refer to section *III.K. ORSA: 'Economic available capital resources'* for further details.

- A detailed internal assessment of the total negative impact (*economic capital target*) having in mind all types of actual or emerging risks, regardless of whether they are captured or not in the *regulatory Risk-Based Capital requirement* or whether they are captured in the ORSA

assessment with different assumptions, methodologies or parameters than the regulatory framework.

- A breakdown of the total negative impact (*economic capital target*) into the risks the insurer is exposed to and the areas of activity that generate each risk. This breakdown helps the Board and the Senior Management to properly rank the risks and their potential impact.
- Based on the three bits of information above, an assessment of the current solvency position of the insurer, its future solvency position under sufficiently challenging scenarios, an identification of the threats to the continuity of the insurer, and a ladder of realistic managerial actions to mitigate those threats.

  The continuity analysis should assess the ability of the insurer to continue in business, and the risk management and capital resources required to do so over a longer time horizon than those used to determine *regulatory Risk-Based Capital requirement*. The continuity analysis should address a combination of quantitative and qualitative elements in the medium and longer-term business strategy of the insurer[14].
- Regarding all the points above, an analysis of whether the holistic risk-profile of the insurer and the exposure to the material risks are consistent with the risk appetite and risk tolerances contained in the business model, strategic plans and policies.

The assessment of these five elements should be carried out in detail at least annually. They should also be produced as soon as possible when the risk profile of the insurer has materially changed.

Furthermore, as part of the ORSA reporting system the insurer should implement a dashboard with a set of early warning indicators to identify as soon as possible material changes in the risk profile of the insurer. This dashboard should help the Board and the Senior Management by providing a proxy estimation of the risk performance of the insurer compared to the risk appetite and risk tolerances defined in the business model.

<u>Other deliverables necessary to move the ORSA assessment throughout the governance of the insurer and obtain the outcomes of the ORSA process.</u>

- An ORSA policy, which consolidates detailed description of each component of the ORSA process[15]. The Board should regularly review and update the ORSA policy.
- Regular procedures that all departments/activities must fulfil at least annually, identifying the risks derived from the activity, their measurement and the possible ways of mitigation and management, including the transference of the risks to a third party.

[14] IAIS ICP 16.14.

[15] Refer to the following item for further details on the ORSA policy.

This deliverable should be applied with a proportional approach. The insurer only needs to develop the procedures for its main departments/units, or where some of them is large enough, for the main sub-departments/sub-activities of such large unit.

□ Internal control. Adaptation of the internal control written rules to include an adequate internal control of the functioning of the ORSA process in the usual operations of all the activities of the insurer, including those outsourced.

□ Decision-making. All material decision-making processes must require as part of the basis for decision, an assessment of the impact that each choice would have both on the '*economic available capital resources*' and the '*economic capital target'* assessed in the ORSA process (beyond the impact on the *regulatory 'available capital resources'* and the *regulatory Risk-Based Capital requirement*).

The documentation of the decisions should explicitly reflect how the ORSA contributions have been weighed in making the decision.

□ Board. It is of utmost importance that the rules of functioning of the Board lay down explicitly its role regarding the ORSA process.

The Board plays a crucial role in **owning** the ORSA process, **actively steering** the process and **embedding outcomes of the process into the overall decision-making framework**. The ORSA process should provide evidence of how the Board signs-off and plays those roles.

The Board of the insurer should monitor every half year the usual operation of the ORSA process, and at least on an annual basis should carry out the full analysis of the functioning of the ORSA process, the outcomes of that process and the relevant actions developed for its improvement.

□ Internal audit. Internal audit plans must include annual reviews of the ORSA process, either on full or referred to its main components, with an adequate sequence to achieve a full internal audit of the ORSA process every four years.

□ Reporting. Reporting procedures to be established in several directions:

- top-down reporting within the insurer, whereby the Board and the Senior Management of the insurer steer the different levels of staff with guidelines on the usual operation of the ORSA, and also informing on its main outcomes and next steps to improve the ORSA, and
- bottom-up reporting within the insurer, providing the outcomes set up in the ORSA process from the junior levels towards the senior levels of the insurer, in order to
  - support the decision-making processes,
  - allow the Board and the Senior Management to assess the financial and solvency condition of the insurer considering all actual and emerging risks, and

- allow the ORSA operational owners to elaborate the ORSA assessment and a well-informed report for the Board on the functioning of the ORSA process and on the consistency of the activities of the insurer with the risk appetite and risk tolerances set up in its business model (for further details refer to the section *II.E Insurers: internal reporting related to ORSA*, and the chart in section *IV.A. General overview of the usual operation of the ORSA process*).

- External reporting, mainly to the Insurance Regulatory Authority but also to interested third parties with legitimate interests in understanding the business model of the insurer and its degree of performance.

> *Determining the economic capital target may help an insurer to assess how best to optimise its capital base, whether to retain or transfer risk and how to allow for risks in its pricing. (IAIS ICP 16.13.1)*

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I.I. What is the ORSA policy?

The ORSA policy is the written document which consolidates detailed description of each component of the ORSA process (see the sketch of the ORSA components in the chart at the beginning of the previous section).

The Board of the insurer is the owner that must sign-off the ORSA policy, having the responsibility to monitor and update its content on a regular basis, and to set up annual plans for its improvement.

The ORSA policy is not a part of the regular ORSA supervisory report, regardless that report should contain a reference to the main features of that policy and the changes introduced since the last ORSA supervisory report.

The components of the ORSA policy are procedures, methodologies and organizational infrastructures.

- Procedures include at least the allocation of responsibilities to produce certain deliverables, description of the deliverables to produce, addressees of the deliverables, schedules and deadlines.
- Methodologies include at least an identification of the actuarial, financial or other scientific concepts underpinning the ORSA quantitative assessment, assumptions, parameters and other components necessary for that assessment, such as the data quality standards.
- Organizational infrastructures include software relevant for the traceability of the ORSA process, storage of its deliverables and supporting documentation, and the integration of reliable internal controls on the performance of the process according to the ORSA policy.

The following contains an illustrative list of sections of the ORSA policy. Nevertheless, each insurer is expected to develop this content in a proportional manner and to include additional sections according to its specific features.

- Scope of the ORSA process: whether the ORSA process refers to a solo insurer or to a group, and in this last case the list of entities captured by the ORSA, the list of entities excluded and the reasons for its exclusion,
- a description of how the ORSA process incorporates the business model and the strategic plan of the insurer, with especial detail on how the ORSA considers the risk appetite, risk tolerance limits and the overall *'economic available capital resources'* needs,

  (this requires an identification of the risks and sub-risks and also an identification of their sources)
- a description of the roles and responsibilities of all those involved with the ORSA, including those of the Board and those of the *ORSA operational owners*. It is of utmost importance that the rules of functioning of the Board lay down explicitly its role regarding the ORSA process.

- the timing and frequency of the ORSA assessment and of the ORSA reports, including the triggers for an ad-hoc ORSA (i.e., the circumstances where the risk profile of the insurer materially changes).

  This content shall include a justification of the adequacy of those timing taking into account the insurer's risk profile and the volatility of its *'economic available capital resources'* relative to its capital position,

  Regarding the ad-hoc ORSA, the ORSA policy should contain a dashboard with a set of early warning indicators, to check the relevance of triggering a new ORSA process, and the criteria to apply for that purpose in light of the dashboard and any other relevant information.

- the actuarial, financial or other scientific methodologies used to underpin an assessment of risks, the assumptions, the parameters and other components necessary for that assessment, such as the data quality standards, and how and how often stress tests, sensitivity analyses, reverse stress tests or other relevant analyses are to be performed,

- the data quality standards laid down for the inputs to the ORSA assessment. Where needed, the ORSA policy shall specify the actions and timing to achieve the optimal data quality.

- a description of the content of the different lines of reporting that the ORSA process should produce (top-down reporting within the insurer, bottom-up reporting within the insurer, and reporting to third parties). For each line of reporting, the ORSA policy should describe the content of each line, the senders and addressees, deadlines and the storage of those reports and their supporting documents in the IT system of the insurer (refer to section *II.E. Insurers: Internal reporting related to the ORSA* for further details).

- the IT software and infrastructures, both administrative and scientific, where the ORSA process is executed and their outcomes and controls are stored,

- Any other content that is relevant for the outcomes and deliverables of the ORSA process.

  (this means that when enhancing or updating the ORSA policy the insurer should not limit itself to tick the list of contents, but it also needs to consider whether there are some gaps which might be important to assess the financial and solvency condition of the insurer or to achieve an effective ORSA process).

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I.J. Glossary of main terms.

Alphabetical order. Some terms are defined in the section specifically referred to that term.

Business model.

It is a document describing how the insurer intends to provide value to all its stakeholders (shareholders, customers, the financial system, and the society in general, e.g., through environmental, social and governance values).

The business model specifies at least the type of activities to carry out, how to develop the activities, the position of the insurer in the market, and the intended impact on all stakeholders.

When specifying how to develop the selected activities, among other issues the business model sets up the target market of customers, the risk appetite of the insurer and the risk tolerances (to deviations regarding the targeted risk objectives).

The business plan of the insurer should also specify the insurer's preferences about the level and type of *'available capital resources'*, including both the current sources of capital and the future sources of capital that may be needed in case of severe unfavourable scenarios that might lead the insurer to a breach of its total economic capital target (or a breach of the *regulatory Risk-Based Capital Requirement*). Where the ORSA process has an insurer's specific definition of '*available capital resources*', it is expected that such definition will be more restrictive than the regulatory definition (e.g., the insurer may not wish to use capital resources other than those of highest quality, or it may apply stricter thresholds to the capital resources that are not qualified as belonging to the highest quality).

When setting up the impact on all stakeholders, the business model describes the set of values to apply, including among other content the economic, social and governance factors, and the management of conflict of interests.

Diversification benefits.

Several calculations of the regulatory capital requirement assess at a first instance the capital requirement referred to each of the risks identified as material for the insurance market. This means that at first instance the calculation process delivers various capital requirements (one per risk considered) (e.g, SCR_{risk_A} ; SCR_{risk_B} ; SCR_{risk_C} …).

Therefore, as a second step the insurer needs to group all the capital requirements for each of the material risks into a single regulatory capital requirement referred to the insurer as a whole. For this purpose, one might say that there are two possible approaches:

- A first option obtains the total SCR as the simple algebraic sum of the SCR for each risk.

$$SCR_{total} = SCR_{risk\_A} + SCR_{risk\_B} + SCR_{risk\_C} + \ldots \quad (1)$$

In mathematical terms, this formula means that the insurer considers that all risks will materialize simultaneously and with their full strength or impact.

But it may be that the regulator, or the insurer in its ORSA process, considers that such assumption is excessively prudent and that the experience shows that even in times of crisis not all risks occur at the same time or with their respective full impacts.

- In a second alternative an aggregation (different than the algebraic sum) is applied resulting in:

$$SCR_{total} < SCR_{risk\_A} + SCR_{risk\_B} + SCR_{risk\_C} + \ldots$$

'*Diversification benefits*' refers to the difference between both terms of the inequality.

The consequence of allowing for the existence of '*diversification benefits*' (either in the *regulatory Risk-Based Capital requirement* or in the economic capital target set up in the ORSA) is that the contribution of each risk to the total capital requirement (e.g., risk A) is not the individual capital requirement for that risk (e.g., it is not SCR_{risk_A}), but a lower amount, which is calculated with an apportionment ($SCR_{risk\_A\_contribution}$). In simple mathematical terms:

$$SCR_{total} = SCR_{risk\_A\_contribution} + SCR_{risk\_B\_contribution} + SCR_{risk\_C\_contribution} + \ldots$$

where $SCR_{risk\_A\_contribution} < SCR_{risk\_A}$; $SCR_{risk\_B\_contribution} < SCR_{risk\_B}$;

It is common to read about

- capital charge for a certain risk '*before*' diversification benefits (SCR_{risk_A}) and
- capital charge for that risk '*after*' diversification benefits ($SCR_{risk\_A\_contribution}$).

For example, when assessing the impact of increasing the capital requirement for a certain risk, it is necessary to take into account the effect '*after*' diversification benefits. Otherwise, the impact would be overstated.

'*Economic capital target*' and '*economic available capital resources*'.

The expression '*economic capital target*' refers to the '*Internal Target Level*' as laid down in Annexure VI Solvency Control Levels of Risk Based Capital and Solvency Directive, (2078).

The expression '*economic available capital resources*' refers to the current capital resources available to absorb unexpected losses and the foreseeable capital resources available in a future unfavourable situation of the insurer, estimated in the ORSA process under prudent assumptions (see section *III.K. ORSA: 'Economic available capital resources'* for further details)

Risk appetite.

Risk appetite is the amount and type of risk that an insurer is prepared to take and retain (ISO 31000). The identification of the risk appetite is a necessary element of the business model of an insurer.

To be effective, the definition of the risk appetite of an insurer needs to refer to risk metrics appropriate to provide a reliable information on the risks taken and retained by the insurer.

Activities where the risk profile of the insurer is similar to the assumptions underlying the calculation of the *regulatory Risk-Based Capital requirement*.

For these activities, several insurers define their risk appetite as a multiplier of the *regulatory Risk-Based Capital requirement* (higher than 1, obviously).

Activities where the risk profile of the insurer materially diverges, or may diverge in the future, from the assumptions underlying the calculation of the *regulatory Risk-Based Capital requirement*. This case includes the risks that are partially captured or not captured in the *regulatory Risk-Based Capital requirement*.

For these activities, insurers may set up their risk appetite with reference to the impact on the '*economic available capital resources*' of the insurer (which may be defined like in the binding regulations on '*available capital resources*' for solvency purposes, or in a different manner if justified).

The impact may be assessed with generally applied metrics (such as the Value-at-Risk calculated applying a high confidence level (VaR), or the Expected Shortfall -also known as Conditional Value-at-Risk or Tail VaR - calculated with a high confidence level as well).

Where it is difficult to model the extreme unfavourable shocks of a set of risks (tail risk) and the interactions among the risks, it is a common practice to set up a definition of the risk appetite based on scenarios (analysis based on '*what if*' in severely unfavourable scenarios).

For those risks difficult to quantify, the risk appetite usually includes qualitative constraints, usually referred to the capacity of the insurer to manage or transfer the risk under acceptable conditions (being the impact on the '*economic available capital resources*' a function of the cost of the transfer and the part of the risk that the insurer cannot transfer).

Risk tolerances.

Risk tolerances reflect the acceptable level of variation around a particular set of risk-based objectives.

Risk tolerances are needed because, on the one hand, it is not possible to fit continuously the performance of the insurer exactly to the risk appetite laid down in the business model (some deviations are unavoidable) and, on the other hand, because the environment around the insurer evolves, thus requiring some degree of flexibility around the objectives.

In other words, risk tolerances might be understood as the margin within which the performance of the insurer may deviate from its risk objectives/appetite without triggering corrective actions or a review of the risk appetite.

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Chapter II. Insurers: Implementation of the ORSA process.

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Before implementing ORSA

Insurers: Steps to implement ORSA

Governance adaptations to implement ORSA

Procedural adaptations to implement ORSA

Internal reporting related to ORSA

IT issues related to ORSA

II.A. Before implementing the ORSA.

Insurers should meet at least two preconditions before starting the implementation of the ORSA:

- ☐ The insurer must approve a written document defining its business model, which should include among other contents, the risk appetite of the insurer and the risk tolerances against deviations[16] (refer to '*I.J. Glossary of main terms*' for the purpose and content of the business model).
- ☐ The Board and the Senior Management of the insurer must agree in written on setting the implementation of the ORSA among their top priorities. All members of the Board and of the Senior Management must show a strong commitment to devote the human, organizational and IT resources necessary for the purpose. In particular, the Board must:
  - ✓ appoint the relevant responsibilities according to the section '*I.E. Who are responsible for ORSA*',
  - ✓ allocate dedicated human resources to the implementation, either on full-time basis or on partial basis,
  - ✓ allocate at least an initial estimation of the financial resources,
  - ✓ allocate initial IT resources appropriate for the purpose.

Ideally the implementation of the ORSA by insurers should be coupled with the implementation of several components of the risk-based framework[17]. Similarly, the supervision of the ORSA should ideally be coupled with other supervisory adaptations [18].

But the experience shows that neither insurers nor supervisors have adequate resources to tackle simultaneously all these challenges, and at the same time attending to their business as usual duties.

ORSA should be prioritized in the first steps of a transition towards a risk-based framework.

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[16] Paragraph (71) of Annexure 5.1 Own Risk Solvency Assessment of Risk Based Capital and Solvency Directive, 2078

[17] Among others, valuation, 'available capital resources', calculation of risk-based capital requirements, governance, market conduct, reporting to supervisors, public disclosure…

[18] Among others, governance of the supervisory authority, supervisory review process, supervisory ladder, risk assessment and supervisory mapping of insurers, transparency and accountability…

II.B. Insurers: Steps to implement the ORSA.

Once the two actions described in the previous section are complete, insurers usually apply the following steps to implement the ORSA process:

1st. step. Training of the Board, the Senior Management and all levels of the staff of the insurer on the role of the ORSA process in the governance of an insurer under a risk-based framework, and on the usual operation of the ORSA.

2nd step. Decision of the Board on whether external support will be needed. Nevertheless, the ownership and leadership of the implementation must remain at all times within the Board and the Senior Management of the insurer.

3rd step. Conduct gap analysis using as benchmark the national regulation, guidelines or toolkits adopted or envisaged regarding the ORSA. In absence of such national reference (or further than it), the IAIS Core Principle 16 provides a secure benchmark appropriately tailored to the features of the insurer. Where the gap analysis also refers to other benchmarks, the insurer should be able to explain the relevance of that benchmark having in mind the features of the insurer.

4th step. Board decision selecting the actions to fill in the gaps. The selection must take into account the feasibility of the actions and its appropriateness according to the features of each insurer – i.e., the *proportionality principle* (*one size does not fit all*).

> It is an option to design the implementing actions mirroring the content of the ORSA policy, in such a manner that the documentation of each action may be used to a great extent as the relevant text of the ORSA policy for the corresponding section.

5th step. Board approval of the implementation project: Description of the human, financial and IT resources to support the actions that fill in the gaps. Board approval of the allocation of resources, allocation of responsibilities and detailed chronogram of actions. Where possible, definition of key performance indicators (KPIs) to measure the work in progress.

6th step. Realization of the actions according to steps 4 and 5.

7th step. Board approval of the ORSA policy. Training to the Senior Management and all levels of the staff of the insurer on the ORSA policy.

8th step. Initiation of the live usual operation of the ORSA process. Validation of its functioning and last hour fine-tunes.

9th step. Board approval of the final report on the implementation project and further actions recommended for its follow up and evolution of the ORSA process.

> *By its own essence, the Board and the Senior Management should have an in-depth involvement on the main components of the ORSA, regardless the outsourcing agreements adopted.*
>
> *Since the insurer and markets are continuously evolving, the ORSA process is an endless learning process that require a leading role of the Board and of the Senior Management of the insurer and a capacity of the insurer to evolve the ORSA.*

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II.C. Insurers: Governance adaptations to implement the ORSA.

Rules of functioning of the Board of the insurer.

- ☐ At least a member of the Board is qualified with detailed knowledge of the ORSA process and is/are appointed to monitor the fulfilment of the rules of functioning of the Board regarding the ORSA process. Nevertheless, the ultimate responsibility of the ORSA process must remain in all and each member of the Board.

  Based on the proportionality principle, Beema Samiti will accept that the member(s) of the Board appointed for the ORSA may rely on an advisor external to the Board for the most technical and complex details of the ORSA assessment.

- ☐ The files for decision of the Board must include a section describing the interlink of each decision with any existing or emerging risk, whether those risks have been considered in the scope of the ORSA process and the impact on the '*economic available capital resources*' and the '*economic capital target*' derived from the ORSA. Furthermore, such impact shall be put in relation to the risk appetite and risk tolerances set up in the business model and the strategic plan[19].

- ☐ When the Board assesses the economic, financial and solvency condition of the insurer such assessment shall cover both the *regulatory Risk-Based Capital requirement* and the own financial and solvency assessment derived from the ORSA process.

- ☐ The Board includes at least annually a sufficient slot to analyse[20]:

  - ✓ Consistency of the ORSA assessment with the business model and the strategic plans,
  - ✓ Report about the use test of ORSA outcomes throughout all decision-making levels of the insurer (refer to the section *III.B. Use test of ORSA outcomes*),
  - ✓ Report on the adherence of the activities/departments of the insurer to contribute to the ORSA as laid down by the Board,
  - ✓ Areas of improvement of the ORSA process, including both lessons learnt from failures and adaptations,
  - ✓ Whether the resources for the ORSA process are adequate and appropriate,
  - ✓ Conclusions of the internal audit regarding the areas of the ORSA audited during the year,
  - ✓ Actions proposed for the next year regarding the ORSA,

[19] Paragraph (71) of Annexure 5.1 Own Risk Solvency Assessment of Risk Based Capital and Solvency Directive 2022 (2078).

[20] Paragraph (73) of Annexure 5.1 Own Risk Solvency Assessment of Risk Based Capital and Solvency Directive 2022 (2078).

- ✓ Approval of updates of the ORSA policy consistently with the points above (for a detailed explanation of the ORSA policy refer to section *I.I. What is ORSA policy*).

The analysis of the Board should be carried out no later than two months after the finalization of the ORSA assessment.

- □ The Board signs-off the ORSA policy, which should contain compulsory instructions to all the departments/activities setting up in a clear and concrete manner the contribution of each department/activity to the ORSA process.
- □ The Board sets up an appropriate communication channel from any level of the staff to the member(s) of the Board appointed to monitor the ORSA process and to the *ORSA operational owner* (for further detail refer to section *I.E. Who are responsible for ORSA*), in order to report any non-regular event or mis-functioning of the ORSA process.

Internal audit.

- □ Verification that the resources of the internal audit are appropriate for the auditing of the performance of the ORSA process according to the ORSA policy.
- □ Verification that the ORSA policy is appropriate, complete and effectively implemented'.

  '*Appropriate*' means that the ORSA policy sets up procedures, methodologies, data quality requirements and infrastructures that allow the quantitative and qualitative assessment of the current and future financial and solvency condition of the insurer, having in mind its risk profile and consistency with the risk appetite and risk tolerances laid down in the business model.

  '*Complete*' means that the ORSA policy contains all the elements necessary to consider in the ORSA assessment all the risks to which the insurer is exposed to (regardless of whether the risks are quantifiable or not, actual or emerging risks, they are short, medium or long-term risks, and whether they are captured or not in the *regulatory Risk-Based Capital requirement*).

  '*Effectively implemented*' means that the ORSA process is carried out as prescribed in the ORSA policy approved by the Board, including the timely functioning of the internal control in respect of the workflows and deliverables of the ORSA process, in particular the ORSA assessment.
- □ Identification of the components of the ORSA process whose failure would lead to material risks or damages to the insurer or mislead material areas of the governance of the insurer.
- □ Adaptation of the multi-year planning of the internal audit to cover all the material components of the ORSA process at least every four years.
- □ Written internal guidelines for the audit of the ORSA, where possible based on internationally accepted guidelines on the issue.

- Regarding the annual report that the internal audit function should submit to the Board of the insurer: the insurer should develop written internal guidelines for the elaboration of the section of that report referred to the ORSA.

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II.D. Insurers: Procedural adaptations to implement the ORSA.

The main procedures to set up or modify when implementing the ORSA may be summarized as follows. The actions described should be carried out consistently with the content of the ORSA policy:

- □ An internal **risk identification, measurement and management handbook** should be developed, to ascertain that all department/activities shall assess all types of risks in the same manner, with homogeneity of criteria and a common language when referring to risks, their measurement and management.

- □ **New written procedures regarding the ORSA**, describing the contributions expected from each department/activity, the management of those contributions, the outcomes to deliver and the reporting procedures. Furthermore, the new procedures shall allocate the relevant responsibilities.

  This adaptation should be applied with a proportional approach. The insurer only needs to develop the procedures for its main departments/units, or where some of them is large enough, for the main sub-departments/sub-activities of such large unit.

- □ New written procedure to guarantee the adequate **documentation of the ORSA**. This documentation should include at least:

  - the policy for the ORSA, including procedure for version control,
  - a record of each ORSA, with detailed description of the methodologies, assumptions and parameters applied for the valuation of assets without a reliable market price, the valuation of the technical reserves and the definition of the sensitivity analysis, stress tests and reverse tests.
  - an internal report on each ORSA,
  - the *regular ORSA supervisory report*.

- □ Internal control procedures must integrate the actions regarding the contributions to the ORSA and the management of those contributions.

- □ Each major department/activity shall identify which of their procedures need adaptations in order to contribute to the ORSA process as the Board expects (as set up in the ORSA policy).

  In principle not all procedures will need adaptation, though in some areas the integration of the ORSA might refer to a major part of the procedures (risk management, financial and actuarial department/activities may be examples where most of their procedures will need adaptations to integrate the ORSA process).

  In particular, all decision-making processes which have, or may have, a material impact on the risk profile or on the financial and solvency condition of the insurer, should be required to include the relevant ORSA reporting in their basis for decision. The ORSA reporting to be included in the basis for decision should be precisely identified among the sets of reports that the ORSA produces as deliverables (please, refer to the following section).

- Regarding the calculations of the '*economic available capital resources*' and the '*economic capital target*', it is at the insurer's discretion whether to create a separate specific procedure or to integrate those calculations in the existing procedures for the calculation of the *regulatory 'available capital resources'* and of the *regulatory Risk-Based Capital requirements*.

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II.E. Insurers: Internal reporting related to the ORSA.

The usual operation of the ORSA process requires the implementation of an ORSA reporting system within the insurer. For each component of the ORSA reporting system the insurer needs to elaborate an inventory of the ORSA reports, describing in detail the content of each report, the producer and the sender, the addressee and the point in time or events that trigger the reporting (see the chart in section *IV.A. General overview of the usual operation of the ORSA process* for a sketched picture of the ORSA reporting system).

- □ Reporting from all levels of the staff of their contribution to the ORSA. This reporting is preferably addressed to the staff responsible for their department/activities, which would coordinate, homogenize, and systematize in a single outcome all the inputs inside his/her department/activity.
- □ Reporting of each department/activity of its ORSA outcomes to the staff responsible for processing those outcomes and producing the ORSA assessment.
- □ Reporting from any staff of the insurer of non-regular events or mis-functioning of the ORSA process. This reporting is addressed to the member(s) of the Board appointed to monitor the functioning of the ORSA process and to the member(s) of the Senior Management appointed as *ORSA operational owner(s)*.
- □ Reporting of the *ORSA operational owners* to each decision-making process where the contribution of the ORSA outcomes is necessary.
- □ Reporting of the *ORSA operational owners* for the annual monitoring analysis of the Board on the functioning of ORSA. This report is directly addressed to the member(s) of the Board appointed to monitor the functioning of the ORSA process, regardless its copy to the relevant Senior Management.
- □ Reporting of the *ORSA operational owners* of the annual report for the Insurance Regulatory Authority on the main features and outcomes of the ORSA process since the last ORSA supervisory reporting (*regular ORSA supervisory report*)[21]. This report is primarily addressed to the Senior Management for their review and further submission to the member(s) of the Board appointed to monitor the functioning of the ORSA process.
- □ Reporting of the *ORSA operational owners* of the dashboard to identify whether the risk profile of the insurer has materially changed, and it is necessary to run the ORSA assessment.
- □ Reporting of the *ORSA operational owners* addressed to all levels of the staff of the insurer informing on the outcomes of the ORSA process, the evolution of the ORSA during the next year and the amendments that the Board approved to the ORSA process[22].

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[21] Paragraph (73) of Annexure 5.1 Own Risk Solvency Assessment of Risk Based Capital and Solvency Directive 2022 (2078).

[22] Paragraph (72) of Annexure 5.1 Own Risk Solvency Assessment of Risk Based Capital and Solvency Directive 2022 (2078).

II. F. Insurers: IT issues related to the ORSA.

The IT systems of the insurer will likely need to develop specific applications to support the usual operation of the ORSA. The following provides a non-exhaustive list:

- □ Applications to trace the reporting related to ORSA
  - ✓ From all levels of the staff to the staff responsible for their department/activities.
  - ✓ From each department/activity to the appointed ORSA operational owners.
  - ✓ From the ORSA operational owners to each decision-making process where the contribution of ORSA outcomes is necessary.
  - ✓ From any staff of the insurer to the relevant Senior Management and to the member(s) of the Board appointed to monitor the functioning of the ORSA process (reporting of non-regular events or mis-functioning of the ORSA process).
  - ✓ From ORSA operational owners to the member(s) of the Board appointed to monitor the functioning of the ORSA process and to the relevant Senior Management, (annual monitoring analysis of the Board on the functioning of ORSA).
  - ✓ From the ORSA operational owners to the Senior Management for their review and further submission to the member(s) of the Board appointed to monitor the functioning of the ORSA process (annual report for the Insurance Regulatory Authority on the main features and outcomes of the ORSA process - annual ORSA supervisory report).
  - ✓ IT application to develop the dashboard specified in the ORSA policy, that the ORSA operational owner will use to monitor whether the risk profile of the insurer has materially changed and hence it is necessary to run a new ORSA assessment.
- □ Applications setting up internal controls on the functioning of the ORSA process (deadlines, contributions to the ORSA process, information of the outcomes of the ORSA process…).
- □ Applications to ascertain that the material decision-making processes include the relevant outcome of the ORSA (description of the interlinks of each decision with any existing or emerging risk, whether those risks have been considered in the scope of the ORSA process and the impact on the '*economic available capital resources*' and the '*economic capital target*' as defined in the business plan and strategic plan).
- □ Applications for the actuarial, statistical and financial calculations necessary to calculate the '*economic capital target*'.

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Chapter III. Areas of analysis of the ORSA assessment.

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III.A. ORSA. Business model, strategic plan and policies.

The ORSA process needs to assess on a forward-looking approach the capacity of the insurer to carry out its activities in accordance with the risk appetite as defined in the business model. This assessment shall be carried out at least annually and whenever the risk profile of the insurer materially changes. The assessment shall be presented to the Board of the insurer as part of the ORSA analysis, which the Board must regularly carry out (for further details refer to section *II.C. Insurers: Governance adaptations to implement ORSA*).

If the conclusion is that the insurer does not have resources enough (or may not have in the future) to support the risk appetite defined in the business model, the Board must adopt at its own initiative the relevant actions to review the business model either changing its risk appetite or increasing the available capital resources or both.

When carrying out the assessment referred above about the capacity of the insurer:

- The insurer must consider both the available capital resources and the managerial capabilities to identify, measure, manage, mitigate and report all type of actual and emerging risks.

  Under a risk-based framework the existence of adequate available capital resources is just a necessary condition, but it is not a sufficient condition.

  In other words, where there is an insufficient managerial capacity with regards to the consideration of the risks the insurer cannot decide to solve it by allocating higher capital resources.

    The allocation of higher capital resources may be a transitional measure in the meantime the managerial capacity is improved, at the earliest opportunity, to a level appropriate to the risks, or vice versa.

- The quantitative assessment of the capacity of the insurer should be carried out at least on a twofold level:

  Firstly, comparing the total *'economic available capital resources'* as considered in the ORSA process to the '*total economic capital target'*. This comparison needs to capture:

    Whether currently there is an excess of the '*economic available capital resources*' over the total '*economic capital target*'.

    Whether there is a negative trend in that comparison both in the short-term (e.g., one-year horizon) and in a longer term (until the point in time where it is still possible to have a sufficiently reliable projection and comparison).

  In assessing this trend, the insurer may consider the evolution of the comparison during the last three/five years. However, it is necessary to complete that historical view with an assessment of whether the historical trend will continue in the future during next few years or if there are objective features that might materially influence the trend in the

future (e.g., the adoption of realistic managerial actions, upcoming changes in the external environment, market foreseeable evolution…).

Secondly, at a lower level (higher degree of granularity) the insurer will need to analyse the material risks which contribute to the *economic capital target*.

The insurer will assess whether the levels of the material risks are according to the risk appetite and within the risk tolerances of the business model.

Furthermore, the insurer will analyse whether there is a reasonable expectation that the foreseeable trend of each material risk will remain in consistency with the business model.

The insurer shall project the foreseeable trend of each material risk having in mind both projections based on how the risk have evolved during recent years and the factors that might influence its future evolution.

The following table is an illustrative example of the dashboard that might be developed from the ORSA process for the quantitative analysis of the consistency of the activity of the insurer and its business model.

Financial year →	**t-3**	**t-2**	**t-1**	**t**	**t+1**	**t+2**	**t+3**
Analysis for the total activity of the insurer							
ORSA '*economic available capital resources*'							
Total '*economic capital target*'							
ORSA solvency ratio							
Regulatory 'available capital resources'							
Risk Based Capital requirement							
Statutory solvency ratio							
Analysis of the most material risks							
Material risk A							
ORSA economic capital before diversification benefits (1)							
ORSA economic capital after diversification benefits							

Economic capital target according to business model							
Risk tolerance according to business model							
Material risk B							
…							

(1) '*Diversification benefits*' are defined in Chapter I, section '*I.J. Glossary of main terms*'.

As mentioned above, although quantitative outcomes are an essential deliverable of the ORSA process, ORSA should be flexible and holistic, and thus should include a qualitative analysis of any feature, event or risk that might have a material impact on the financial and solvency condition of the insurer.

For consistency with the quantitative analysis, ORSA should develop the qualitative analysis both from a holistic point of view and for each material risks.

Qualitative holistic analysis

Usually, insurers consider the following risks that might have a material impact on the insurer as a whole:

- Risks external to the insurer and that may be triggered by events out of the control of the insurer.

  This is the case of legal changes, IT innovation, material changes in competition within the insurance market, social changes, etc.

- Risks external to the insurer where the insurer has some room for manoeuvre.

  The most common case is the reputational risk, intra-group risks and some types of contagion risk, some types of climate-change related risks….

- Risks internal to the insurer that might impact on the entity as a whole.

  This may be the case of some operational risks and also of mis-functioning of any of the essential roles or committees of the insurer (the Board, the Senior Management, the Risk Management Committee[23], the ALM Committee where it exists…)

It is important that the insurer keeps in mind all these risks and reassess on regular basis:

Where possible, the economic consequences of its materialization. Where these consequences cannot be quantified with a formulaic approach, insurers usually apply a stress test technique, defining a sufficiently adverse scenario and assessing the deterioration of the solvency position of the insurer in such scenario.

In all cases, the ORSA process should elaborate the realistic managerial actions relevant to mitigate to the maximum possible extent the probability of materialization of the risks and the severity of such materialization. The managerial actions should be realistic and appropriate, consistent with

[23] Guideline 5.9 of the Risk Management Guidelines for Insurance Company, 2019 /2076).

the business model and strategy of the insurer and according to its managerial capabilities and practices.

The consideration of managerial actions in the future projections should be made under prudent assumptions, having in mind the risk that the insurer eventually cannot put in place such actions due to internal or external limitations (e.g., it is not prudent to consider that the insurer will be the first of the financial market in anticipating a fall of prices).

For example, in the case of mis-functioning of the Board, the ORSA process should cover at least

- the existence of clear and complete written rules of functioning of the Board (including the relevant fit and proper requirements and remuneration policies),
- the application of a 'four-eyes' (independent) principle in all the material decisions,
- an internal audit on whether the Board acts in accordance with its rules of functioning,
- the establishment of mechanisms to verify that there is no feature that is fostering the mis-functioning of the Board, such as remuneration policies or insufficient management of conflict of interest.

Qualitative analysis for each material risk

The following template is an illustrative example of how the insurer might develop qualitative analysis of the consistency between the actual risk profile of the insurer and its business model. The qualitative analysis is carried out for each material risk.

Identification of the risk in the business model	Name	
	Definition	Definition in the business model and consistency with the treatment in the ORSA process.
	Sub-risks	Where relevant, identification of the sub-risks embedded in the ORSA assessment. Comparison of the business model breakdown into sub-risks to the sub-risk breakdown applied in the ORSA process.
Measurement of the risk	The risk is fully captured in the *regulatory Risk-Based Capital requirement*, or the risk is partially captured in the *regulatory Risk-Based Capital requirement* (explanation of which part of the risk is not captured or it is insufficiently captured), or the risk is captured in the *regulatory Risk-Based Capital requirement* but the methodology is not appropriate to the risk profile of the insurer (e.g., in case the level of concentration risks is not captured in the regulatory requirement). *Economic capital target*: Methodology applied in the ORSA process and consistency with the manner the risk appetite and risk tolerances are defined in the business model	

	Risk that can only be partially captured in an *economic capital target* or that cannot be captured. Consistency among the business model and the ORSA process.
Managerial actions	The managerial actions should be realistic, appropriate and consistent with the business model and strategy of the insurer and according to its managerial capabilities and practices. Control, monitoring, mitigation and other managerial actions Specific reference to the risks that can only be partially captured in an *economic capital target* or that cannot be captured. Events that may lead to the impossibility for the insurer of adopting the managerial actions.
Reporting. Procedures	Internal reporting, with specific reference to the reporting to the ORSA process External reporting, both reporting to the Insurance Regulatory Authority and to interested third parties (e.g., shareholders).

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III.B. Use test of the ORSA outcomes.

A critical element of the usual operation of the ORSA process is the use of its outcomes in the decision-making processes of the insurer.

For this purpose, the ORSA policy should require the insurer to:

- document an inventory of the decision-making processes of the insurer where the ORSA outcomes are required. All decision-making processes that have or may have a material impact on the financial and solvency condition of the insurer should be included in the inventory, further than those any other decision-making processes that the insurer deems appropriate to include at its own initiative,

- for each decision-making process included in the inventory, allocate the reporting deliverables of the ORSA process that should necessarily be included in the basis for decision,

- for each decision-making process included in the inventory, the written document reflecting the decision should explain how the reporting deliverables of the ORSA process have been considered and its influence in the final decision,

- set up internal controls to ascertain that all the basis for decision of the inventory have included the reporting deliverables allocated to each decision, and that the documentation of the decisions explicitly reflect how the ORSA contributions have been weighed in making the decision.

- carry out an internal audit to verify, firstly, that the internal control has been effective (the relevant ORSA reporting was included in the basis for decision) and, secondly, that the elaboration of the decisions have taken into account ORSA outcomes in the manner laid down in the rules approved by the Board.

The developments regarding the inventory, the ORSA reporting allocated to each decision-making process, the internal control, and the conclusions of the internal audit, should form part of the ORSA analysis that the Board must carry out on an annual basis and whenever the risk profile of the insurer materially changes (refer to the section *II.C. Insurers: Governance adaptations to implement ORSA*).

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III.C. Measurement of risks.

The primary and more immediate milestone of the ORSA process should be to achieve an adequate **identification and understanding of all the risks (and sub-risks) the insurer is exposed to**. This refers to all levels of the insurer, from the Board to the merely operational staff (each level in the appropriate manner).

> The understanding of risks should be reflected in a progressive consideration of the risks in the decision-making processes, regardless of whether the risks are quantifiable or not.
>
> This consideration should materialize in coupling the decisions with appropriate actions to mitigate the risks inherent to the decision or to increase the '*economic capital target*' or both, in any case verifying the consistency with the risk appetite and risk tolerances defined in the business model.
>
> This includes either actual or emerging risks, quantifiable or non-quantifiable risks, risks captured in the *regulatory Risk-Based Capital requirement* or not, and short, medium or long-term risks.

At a second step, when referring to the **measurement of risks**, the experience shows the need of a proportional approach and the relevance of a progressive improvement of the quantitative techniques applied for that purpose.

> The '*measure of a risk*' provides an estimate of the available capital resources that are necessary to offset the losses derived from the materialization of the risk with a targeted confidence level.
>
> It is not expected that from the very first moment the insurer will implement sophisticated quantitative methodologies to measure risks.
>
> Rather, the expectation is that after being aware of all risks (i.e., identification), the insurer will start with simple, manageable and understandable measures, even if those measures provide approximations. In this manner the ORSA assessment of risks will be appropriate (understandable) to support the decision-making processes of the insurer as described above.
>
> In the successive runs of the ORSA process it is desirable that the insurer will improve the assessment methodologies of the material risks or sub-risks, to the extent that the Board, the Senior Management and the relevant staff is able to understand the performance of the more advanced method, its interlinks and its weaknesses, and also to the extent that the outcomes of the method are used to improve the decision-making processes of the insurer.

Insurers should consider that to measure risks using any methodology it is essential to have **a sufficient data quality**. It is expected that the ORSA policy shall contain appropriate provisions to ascertain the data quality of the inputs to the ORSA assessment.

Having this in mind, the sequence of operational steps might be summarized as follows:

> **1st step.** Inventory and definition of all the risks regarding any activity of the insurer, and identification of the material sub-risks. This implies the elaboration of a risk identification, measurement and management handbook, as referred in section *II.D. Procedural adaptions to implement the ORSA*.

The insurer does not need to reach the maximum level of detail of the breakdown into sub-risks (granularity). Nevertheless, risks that need a different methodology to be measured should be considered separately in each step.

2nd step. Assessment of whether the risk profile of the insurer is materially different from the assumptions applied in the calculation of the *regulatory Risk-Based Capital requirement*.

In absence of an explicit documentation setting out such assumptions, the insurer will need to elaborate on those assumptions or at least to refer to the average risk profile of the market, assuming that such average risk profile has underpinned the standard calculation of the *regulatory Risk-Based Capital requirement*.

The insurer may as a first step perform a qualitative analysis and if that indicates that the deviation is not significant, a quantitative assessment is not required.

3rd step. Measurement of the risk and calculation of the '*economic capital target*'.

It is expected that all insurers will measure as many risks as possible. The insurer may use simple methods (provided they prevent an understatement of the '*economic capital target*'), or more sophisticated methods.

A sophisticated method is not preferable by itself. Its application should be conditioned to the capabilities of the insurer to fully understand the performance of the method, its interlinks and their weaknesses, and the capacity of the insurer to integrate the outcomes of the method in their decision-making process in an appropriate manner.

It is preferable to use simpler methodologies, which are sufficiently prudent, whose performance and weaknesses the insurer fully understands, than the use of sophisticated methods that actually are a black box.

In fact, during the first years of operation of the ORSA assessment it is expected that insurers will apply rather streamlined methodologies.

The insurer's perception of risks in the regular runs of the ORSA process will lead in a natural way towards better data quality and the willingness of the Board to have more accurate methods to measure the material risks. The complexity of those methods may increase with the improved capacity of the Board, of the Senior Management and of the relevant operational staff to fully understand the performance of the methods, its interlinks and its weaknesses.

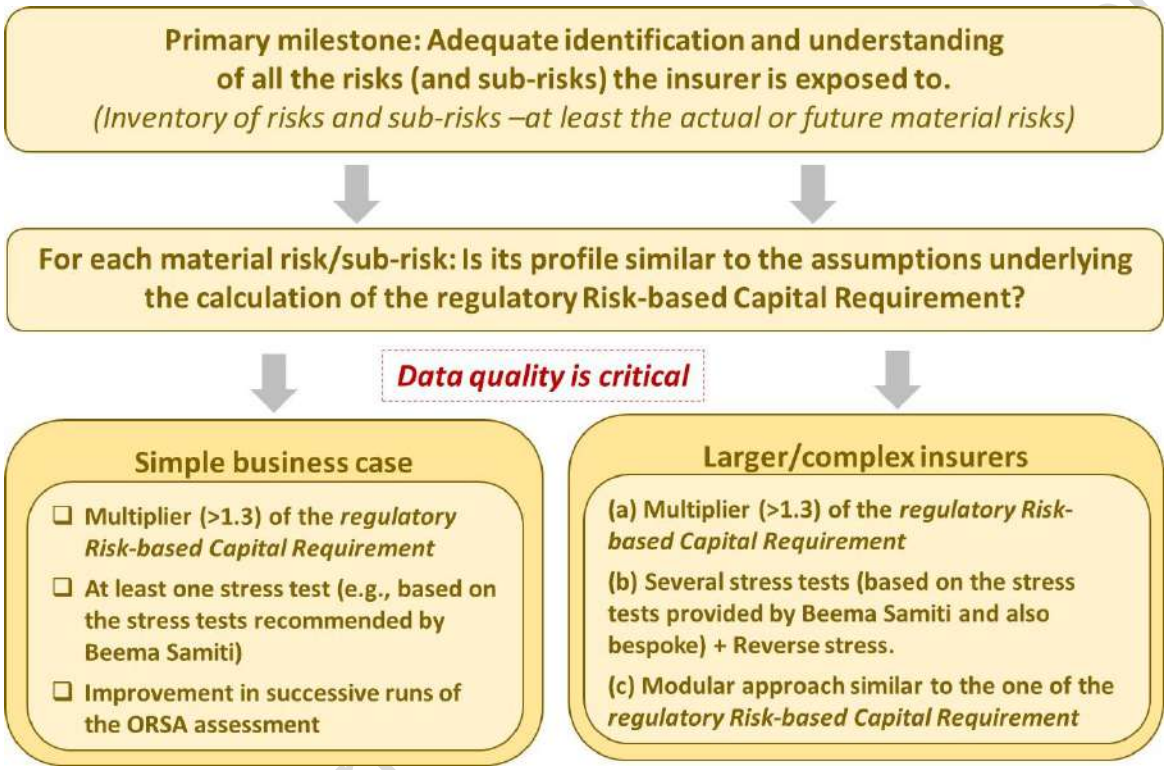
When measuring risks, the ORSA should avoid mixing several sources of risk, since the methodologies for their measurement are different. Uncertainty risks and some reputational risks are susceptible of being measured with appropriate actuarial methods.

Nevertheless, a simplified measurement of operational risks may be based on more streamlined approaches (refer for further details to the section *III.I. ORSA: operational risks*).

From the first year of implementation of the ORSA process it is expected that all insurers will apply a stress test technique, based on either one scenario or several scenarios. Those scenarios should capture

the material risks of the insurer by assuming sufficiently prudent unfavourable changes in several economic magnitudes and the correlated unfavourable changes in the entity-specific magnitudes.

The following chart summarizes the main approaches for a simple measurement of risks in the ORSA assessment. It is assumed that the initial methodologies of measurements of risks will be simple and provide just proxies. It is expected that those methods will improve in the successive runs of the ORSA assessment.



Simple business case.

Medium and small size insurers with a low-risk profile as well as insurers whose overall risk profile is similar to the one considered in the '*regulatory Risk-Based Capital requirement'*, as it is the risk profile of the material risks.

At a first step the simplest approach might be setting the '*economic capital target*' as a multiplier (higher than 1.3[24]) of the '*regulatory Risk-Based Capital requirement*.'

The multiplier shall be based on the expert judgement of the insurer, having in mind the plausibility of the allocation mentioned below. The multiplier should be higher depending on the quality of the governance of the insurer, in particular the assurance of the functioning of its Board, its internal control system, its internal audit and its product development.

[24] Annexure VI Solvency Control Levels of Directive Risk Based Capital and Solvency Directive 2022 (2078).

It is expected that an insurer applying this '*multiplier approach*' will allocate the excess of the '*economic capital target*' above the *regulatory Risk-Based Capital requirement*, to each of the material risks that

- either have not been considered in the regulatory requirement, or
- have been considered only partially, or
- where the confidence level of the insurer is higher than the confidence level of the regulatory capital requirement, or
- where the time horizon of the ORSA assessment is longer than the time horizon of the regulatory capital requirement.

For that purpose, the ORSA policy should contain the criteria to apply when deriving the portion of the excess attributable to each risk, with explicit explanation of how the quality of the governance of the insurer is considered. Those criteria may be simple and based on proxies, but they should be objective and its application in each run of the ORSA assessment should be documented. The appropriateness of the criteria should be annually reviewed.

Furthermore, at a first step the insurer should also perform at least one stress test where the magnitudes related to the material risks of the insurer are shocked. The insurer may opt for

(a) using a generally applied stress test whose shocks are relevant for the insurer's risk profile. During the first years of implementation of the ORSA, Beema Samiti intends to provide insurers with stressed scenarios recommended for the ORSA assessment. The set of scenarios may depend on the type of business, or

(b) as in option (a) but simplifying the stress test in respect of risks or calculations that are not material for the insurer, or

(c) as in option (a) but applying some adjustments to the shocks or calculations according to the characteristics and capabilities of the insurer, or

(d) in absence of a generally applied stress test whose shocks are relevant for the insurer's risk profile, the insurer may build up its own stress test focused on the material risks.

When carrying out a stress test the insurer should not limit to calculate the overall impact on the '*economic capital target*'.

It is expected that the insurer will assess the contribution of each of the shocked magnitudes (and hence the risks that the shock materializes) to the overall impact. In this manner the insurer may get quantitative information about the materiality of risks, comparison among the more material risks and how such materiality and such comparison evolve in time.

The overall impact of the stress test should work as a floor for the '*economic capital target*' derived by the ORSA assessment.

Regarding the valuation criteria, it is expected that the insurer shall apply the criteria set out in the Annexure II Valuation of the Risk Based Capital and Solvency Directive, 2022 (2078).

Regarding the allowance of risk mitigation techniques to reduce the *'economic capital target'*, Beema Samiti expects the ORSA policy to contain a prudential list of requirements for such purpose, and the requirements are at least as strict as the list of requirements of the section *IV.C. ORSA: Risk management*.

Regarding the consideration in the projections of future management actions, the managerial actions should be realistic, appropriate and consistent with the business model and strategy of the insurer and according to its managerial capabilities and practices. The consideration of managerial actions in the future projections should be made under prudent assumptions, having in mind the risk that the insurer eventually cannot put in place such actions due to internal or external limitations (e.g., it is not prudent to consider that the insurer will be the first of the financial market in anticipating a fall of prices).

Regarding the '*economic available capital resources*' it is expected that the insurer will not apply more flexible quality requirements and thresholds than those laid down in Annexure IV Available Capital of the Risk Based Capital and Solvency Directive 2022 (2078).

In successive years and provided the insurer remains in this category of 'simple business case', it is expected that the insurer will improve its ORSA assessment through one or several of the following actions:

- Introducing in the ORSA policy a set of relevant criteria to quantify the multiplier in the more possible objective manner,
- Increasing the quality of the simplifications or approximations applied to allocate the excess of the '*economic capital target*' above the *regulatory Risk-Based Capital requirement* to the material risks,
- Fine tuning the consideration of the quality of the governance of the insurer in the multiplier and in allocation of the excess to the material risks,
- Increasing the number of stress tests and their design to capture the material risks of the insurer.

Business case for larger or complex insurers.

Large insurers and also medium and small sized insurers whose overall risk profile is not similar to the one considered in the *regulatory Risk-Based Capital requirement*, or where the risk profile of the insurer for some of the material risks is different than the one considered in the regulatory requirement.

It is expected that these insurers will calculate their '*economic capital target*' as a combination of:

(a) a multiplier (higher than 1.3[25]) of the *regulatory Risk-Based Capital requirement*,

(b) a modular approach, where risk-specific capital requirements are calculated for the material risks (or sub-risks), and then those risk-specific capital requirements are aggregated into an overall capital requirement.

(c) the outcomes of several stress tests where the material risks of the insurer materialize to a prudent extent, including a reverse stress test[26].

The considerations reflected above for the simplest business case apply here as well.

Regarding the modular approach, it is expected that the insurer will apply the same breakdown of risks and sub-risks as in the *regulatory Risk-Based Capital requirement*.

Nevertheless, the insurer may apply a different breakdown if it demonstrates better reflection of material risks or material sub-risks and provided the different modular structure of risks is integrated in the organization and decision-making of the insurer (i.e., it is not just a conceptual elaboration).

Furthermore, when calculating the *'economic capital target'* for a specific risk or sub-risk the following approaches are considered admissible:

- a multiplier (higher than 1.3) of the *regulatory Risk-Based Capital requirement* for the risk or sub-risk,
- where the regulatory capital requirement for the specific risk or sub-risk is calculated with a factor-based approach, the insurer may apply a multiplier to the regulatory factor,
- where the regulatory capital requirement for the specific risk or sub-risk is calculated with a scenario approach, the insurer shall apply shocks appropriate for the risk profile of the insurer.

[25] Annexure VI Solvency Control Levels of Directive Risk Based Capital and Solvency Directive 2022 (2078).

[26] A reverse stress test is understood as the approach where the insurer firstly assesses the volume of losses that would lead to a breach of its risk appetite or to a likely permanent discontinuity of its business. From those losses and moving backwards, the analysis derives the shocks that would be needed at macroeconomic and microeconomic level (sometimes labelled as '*killer scenarios*').

When it is plausible to happen any '*killer scenario*', the insurer should at its own initiative revise its business model and its overall capital resources needs.

Eventually regarding the modular approach, it is expected that the insurer will use the same aggregation technique and parameters as the *regulatory Risk-Based Capital requirement*, unless the insurer applies a different breakdown of risks and sub-risks.

Regarding the calculation (c) based on stress tests, it is expected that the large insurers of the Nepalese insurance market will carry out several stress tests. Among them it is expected at least to conduct a reverse stress test.

Regarding the risks where the risk-profile of the insurer is materially different than the one underlying in the *regulatory Risk-Based Capital requirement*. While it is admissible during the first years of implementation of the ORSA process to apply on regular basis a simplified calculation of the '*economic capital target*', Beema Samiti expects that every 3-5 years the insurer will carry out a more accurate measurement to verify that the simplified calculation remain near the actual measurement, and where this is not the case to introduce fine tunes of the simplifications.

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III.D. Risk regarding non-life insurance.

Inventory and definition of risk regarding non-life insurance.

In a broad sense '*risk regarding non-life insurance*' is the risk of a performance of the non-life insurance business being worse than those expected by the insurer at the date of reference of the ORSA assessment based on the pricing of the contract.

The following (non-exhaustive) list refers to the more material risks regarding non-life insurance: underwriting risk, reserving risk, catastrophic risk (usually distinguishing natural cat events and man-made cat events), reinsurance risk, accumulation risk, market conduct risk and sustainability risk.

As shown in the table below a '*performance worse than the expectations*' may derive from different sources. The insurer needs to consider appropriately these different sources in the ORSA process.

SOURCES →	Uncertainty	Operational	Reputational risk
Underwriting risk: Risk that the future development of the insurance contracts currently in force be worse than the expected performance based on the pricing of the contract	Worse performance due to changes out of the control of the insurer occurred in the external or internal environment leading to fluctuations in the timing, frequency or severity of the expected insured events (i.e., due to the intrinsic volatility of the combined ratio).	Mispricing due to failures in the product development process of the insurance contract. Lack of data quality (data incomplete, inaccurate or inappropriate -obsolete or not relevant). Inconsistent methodology and/or assumptions. Settlement of the claims inconsistent with the assumptions used when pricing the contract. Commercial discounts or commissions to intermediaries above those considered in the pricing.	Distribution of the insurance contract to customers whose features were not considered in the product development. Inequality of the pricing (similar risks with material differences in pricing), leading to reputational damage and/or mass lapses and/or financial penalties. Unfair profit margin (too low combined ratio) leading to reputational damage and/or mass lapses and/or financial penalties.
Reserving risk: Risk that the final settlement of the existing claims (either known or not by the insurer) requires higher economic resources than the current estimates	Final valuation of the technical reserves higher than current estimate, due to the inherent volatility of the process of quantification of the reserve for outstanding claims (fluctuations in the timing, frequency or severity of the claims settlement).	Calculation technical reserve with inappropriate method. Factual errors in the calculation due to ineffective internal control. Lack of data quality (data incomplete, inaccurate or inappropriate -obsolete or not relevant).	Unfair practices in the settlement of claims conflicting with the interest of the policy holders. Inappropriate claims settlement process leading to higher costs in Court or legal arbitrage.

Catastrophic risk: Events of exceptional severity and very low frequency (risks with a pluriannual horizon and a huge and short-term impact)	Usually, insurers distinguish natural cat events and man-made cat events. Uncertainty due to unavoidable low-frequent and highly severe claims		
Accumulation risk: Risk of negative performance due to the accumulation of risks that could not be foreseen during the product development.	Increased intrinsic volatility of a risk-concentrated portfolio of insurance contracts compared to a well-diversified portfolio.	The product development has ignored (or considered inappropriately) the concentration underwriting risk. Insufficient control in the distribution of insurance contracts leading to accumulation of risks beyond the design of the product. Product development inconsistent with the risk appetite of the business model.	Accumulation of claims payments may create liquidity stress to the insurer, putting at risk its reputation.
Reinsurance risk: Risk that the insurer receives a lower reinsurance protection than expected or mismatched in timing with regards to the needs of the insurer to honour its commitments with the policy holders	Risk due to the uncertainty inherent in the cash inflows and outflows derived from the reinsurance contract.	Inappropriate reinsurance contracts for the type of risks of direct insurance (basis risk), Mismatch of the direct exposures and the protection provided by the reinsurance contracts (basis risk), Selection of reinsurers whose credit quality breaches the criteria set up by the insurer in its risk appetite, Loss of protection due to a deficient management of the reinsurance contacts.	Tight reinsurance conditions (higher premiums, lower reinstalments and stricter thresholds) found in the reinsurance market due to the poor reputation of the insurer's risk management (e.g., risk selection).
Market conduct risk	Risk of the insurer experiencing a negative impact, due to changes in the interests of the policy holders		Risk of the insurer experiencing a negative impact due to a negative feeling of the clients and

	during the period from product design to the last service of the policy.		public perception of the insurer (mass lapses).
Sustainability risk Risk of unfavourable impact on the insurer due to environmental or social risks	Risk of the insurer experiencing a negative impact due to changes in social inclusivity that couldn't be foreseen in the design and pricing of insurance contracts Risk of the insurer experiencing a negative impact due to the inherent volatility of the climate-change related events.	Risk of the insurer experiencing a negative impact due to social inclusivity whose mutualization was not considered (or was wrongly considered) in the design and pricing of insurance contracts. Risk of the insurer experiencing a negative impact due to ignoring (or wrongly considering) the climate-change related risks in the design and pricing of insurance contracts. Risk of the insurer experiencing a negative impact due to ignoring (or wrongly considering) the climate-change related risks in the settlement of the claims.	Risk of the insurer experiencing a negative impact due to a negative feeling of the clients and public perception of the insurer (mass lapses) derived from the absence of environmental or social policies, or the existence of a poor ESG policy or an ineffective application of that policy.

Risk control, mitigation, monitoring and review.

The ORSA process shall fit these risk management activities to the corresponding Guidelines of the Risk Management Guidelines for Insurance Company, 2019 (2076) (sections 6.4 to 6.9)

Some tips for the treatment of risks regarding non-life insurance in the ORSA process.

It is expected that the insurer shall apply in the ORSA assessment a quantitative approach like the one used in its day-to-day operation. Where that approach diverges from the one laid down in the *regulatory Risk-Based Capital Requirement* (because the insurer considers that it reflects better the material risks or material sub-risks), Beema Samiti expects that the insurer shall be able to demonstrate that such different approach is integrated in the organization and decision-making of the insurer (i.e., it is not just a conceptual elaboration).

Regarding the uncertainty source of underwriting and reserving risks, it is a general practice to calculate the *regulatory Risk-Based Capital requirement* as a factor of certain volume measures (such as premiums and technical reserves), the factor being different by lines of business.

ORSA process can also apply that formulaic approach, though setting different factors where the risk profile of the insurer diverges from the average market (e.g., different confidence level or time horizon).

Some insurers apply the factors to their main products, which may not be identical to the lines of business set up in the *regulatory Risk-Based Capital requirement*. In this case the ORSA process should consequently adjust the factors to apply.

Some ORSA processes complement the formulaic approach with stochastic techniques usually based on run-off triangles. These sophisticated techniques may be applied in each annual ORSA assessment or on pluriannual basis (in this last case as a verification of the goodness of the factors applied in the factor-based approach).

□ Regarding non-life catastrophic risk, some insurers consider the non-life catastrophic risks separately while others assess them jointly with life catastrophic risks, thus assessing a single category of catastrophic risks.

The ORSA process needs to identify the main sources of catastrophic events in its non-life insurance portfolios, usually distinguishing natural cat events and man-made cat events.

In the case of natural cat events, the interlink with climate-change related risks needs to be considered (see section III.J for further details about the consideration of climate-change related risks in the ORSA).

For each type of catastrophic event the ORSA process needs to choose among

- a formulaic or factor-based approach (a set of factors applied to the relevant volume measures, thus being critical the data quality of such volume measures),
- a stress test approach (which is a common practice for natural cat events, in particular climate-change related risks),
- or a combination (e.g., a factor-based approach where the factors are derived from the outcomes of stress tests carried out by the insurer every three/five years, or from the outcomes of stress tests carried out for the whole insurance market on regular basis).

□ The insurer should assess whether the treatment of non-life reinsurance as an insurance mitigation technique should be considered within the risks regarding non-life insurance (then the '*economic capital target'* for non-life insurance risks is net of reinsurance) or in a different area of risk.

The allowance in the ORSA assessment of reinsurance as a mitigation technique should require the fulfilment of conditions at least as strict as the list of section *IV.C. ORSA: Risk management*.

In any case the ORSA process should capture the risks of unexpected losses derived from the default of the reinsurer.

□ Consideration of the operational risk. Several cases of mispricing or under reserving are triggered by operational failures within the insurer, including the mis-functioning of procedures (such as internal control/validation).

The ORSA process should contain an explicit assessment of the capacity of the insurer to differentiate which events of mispricing and events of under reserving are really a materialization of operational risks.

Most of these operational risks are intrinsic to the insurer and therefore the correct approach in the ORSA process is to deal with them by improving the managerial capacity of the insurer.

The volatility of an operational risk has a different pattern than the volatility of mispricing or under reserving when they derive either from the intrinsic uncertainty of any future estimate or from features external to the insurer out of its control.

Nevertheless, where the insurer cannot have a reliable differentiation of the underwriting and under reserving risks due to operational risks, it seems better to assess both risks regardless the source of their materialization in the past.

In any case, the ORSA process shall be explicit on the fact that an economic capital additional to the *regulatory Risk-Based Capital requirement* has been assessed due the existence of deficient or insufficient managerial capabilities. The insurer should take the appropriate actions to adapt its managerial capabilities to its risk profile or vice versa.

□ Regarding the accumulation risk, the ORSA process needs to consider whether the portfolio of insurance contracts of the insurer is sufficiently diversified or rather the insurance contracts show material concentration in certain geographical areas, sectors of economic activity, target market of customers, or any other relevant criteria.

Usually the *regulatory Risk-Based Capital requirement* assumes a well-diversified portfolio of insurance contracts. In this case it is necessary to capture the material accumulation risk on case-by-case basis.

The actions regarding accumulation risk in the ORSA process usually combine quantitative measures (calculation of an economic capital in the ORSA process) and qualitative measures such as:

- implementation of controls in the process of selection and acceptance of risks,

- mitigation through reinsurance for accumulation. In this case the ORSA process shall also consider the risk of unexpected losses derived from the default of the reinsurer.

□ Climate-change related risks. As detailed in section *III.J. ESG Sustainability risks*, the materialization of these risks may impact on several areas of the insurer (non-life and life insurance risks, market risks, operational risks and some non-quantifiable risks, such as reputational and legal risks). The ORSA should consider all these impacts in the respective areas of risks.

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III.E. Risk regarding life insurance.

Inventory and definition of risk regarding life insurance.

In a broad sense '*risk regarding life insurance*' is the risk of a performance of the life insurance business being worse than expected by the insurer at the date of reference of the ORSA assessment based on the pricing of the contract.

The following (non-exhaustive) list refers to the material risks regarding life insurance: biometric risks (usually distinguishing mortality risk, longevity risk and disability risk), expenses risk, lapse risk, catastrophic risk, reinsurance risk, accumulation risk, market conduct risk and sustainability risk.

A '*performance worse than the expectations*' may derive from different sources. The insurer needs to consider appropriately these different sources in the ORSA process.

Risk control, mitigation, monitoring and review.

The ORSA process shall fit these risk management activities to the corresponding Guidelines of the Risk Management Guidelines for Insurance Company, 2019 (2076) (sections 6.4 to 6.9)

Some tips for the treatment of risks regarding life insurance in the ORSA process.

It is expected that the insurer shall apply in the ORSA assessment a quantitative approach like the one used in its day-to-day operation. Where that approach diverges from the one laid down in the *regulatory Risk-Based Capital Requirement* (because the insurer considers that it reflects better the material risks or material sub-risks), Beema Samiti expects that the insurer shall be able to demonstrate that such different approach is integrated in the organization and decision-making of the insurer (i.e., it is not just a conceptual elaboration).

□ Regarding biometric risks.

There are many cases where insurers do not have enough volume of data to derive their specific biometric tables. Therefore, insurers have no other choice than supporting their pricing of the life insurance contracts and the calculation of technical reserves on market-wide biometric tables, or even on general population biometric experience.

Consequently, the ORSA process needs to consider a wide range of biometric risks, even in the case where the insurer cannot model some of them (hereinafter, references to biometric rates apply to mortality, longevity and disability rates, unless otherwise stated):

- Level risk, meaning the risk that there is a mis-estimation of the current biometric rates.
- Volatility risk, meaning that even being appropriate the estimation of the level of the biometric rates, due to its uncertain nature, those rates are different from one year to another, though on average being equal to the expected level of mortality/longevity/disability.

Furthermore, the lower size of the portfolio of insurance contracts, the higher volatility (deviations) around the expected rates. Then, the biometric volatility of the portfolio of an individual insurer will likely be higher than the biometric volatility of the insurance market or general population.

- Trend risk, referred to the risk of a mis-estimation of the trend of the biometric rates.

  The trend in this context refers to the fact that, as a rule, the mortality rates decrease for new generations and such decrease is expected to continue for future generations. Where the biometric table applied is a static table, the insurer needs either to update the mortality table rather frequently or to introduce a generational factor in the table that produces lower mortality rates for the more recent generations. Ignoring the trend or underestimating it leads to a material insufficiency of premiums and a material under reserving.

Level, volatility and trend risks may have several sources of different nature:

- □ insufficient data quality (data incomplete, inaccurate or inappropriate -obsolete or not relevant) of the experience on which the biometric rates are calculated,
- □ the modelling underpinning the biometric rates is not appropriate to reflect the features of the target market of customers,
- □ insufficient volume of the experience supporting the expected biometric rates. This is a common situation for some intervals of ages, such as the youngest ones and the oldest ones.
- □ mispricing due to failures in the product development of the insurance contract,
- □ commercial discounts or commissions to intermediaries above those considered in the pricing.
- □ distribution of the insurance contract to customers whose features were not considered in the product development.

- Basis risk, meaning the risk that the current level of mortality/longevity/disability of the portfolio of the insurer, or its volatility or its trend be different than the current level, volatility or trend of the biometric table that the insurer applies in pricing and reserving (either an insurance market-wide table or the general population table where relevant).

- Accumulation risk means that most of the biometric risk is concentrated in a small group of people (e.g., materially high lump sums to pay in case of death/survival/disability to a concentrated smaller group of people, or a high percentage of annuities to pay to a concentrated smaller group of annuitants). Then a material unfavourable deviation in the biometric rates of that small group may have a huge impact.

- Compensation risk appears where the current expected mortality rates according to the biometric tables and the real experience are similar at portfolio level, but there are material

divergences when referred to partial tranches of age. In this case, the expected biometric tables and the real biometric tables will diverge sooner or later as times goes by.

Having in mind all above, the ORSA process cannot apply a factor-based approach to model these risks. It needs to tackle with biometric risks through several recalculations of the technical provisions under different scenarios where all the risks above are captured.

This means a technical challenge for insurers because the design of the algorithm of calculations needs to be flexible enough to introduce bespoke changes in the biometric tables, including the application of generational tables (tables with different mortality rates for the same age, depending on the year the insured person was born) and shocks of different directions for different intervals of age (the so-called convexity risk).

During the first years of application of the ORSA process insurers should set up a set of scenarios looking for a trade-off among a comprehensive capture of risks, feasibility of the several calculations needed (both in terms of time, validation and cost) and capacity of the Board and of the Senior Management to understand the different calculations and their interlinks.

The insurer needs to gain a close overview of the features of its life insurance risks. '*A close overview*' does not require a complex approach, but a comprehensive summary capturing all the biometric risks and providing some objective metrics of their current situation and the foreseeable evolution. In this respect, it is not true that the more calculations carried out the better.

As for the any other risk, one of the outcomes of the ORSA process should be the indication of areas for improvement. In successive years the insurer may take actions to increase its capacity building and evolve to more advanced approaches.

As for any type of risk, a reliable ORSA process only can be operated when there is a guarantee of a **sufficient data quality**.

- Expense risk, meaning the risk of unfavourable deviations in the expected expenses derived from life insurance contracts- especially medium and long-term contracts.

  As for any other risk, the ORSA process needs to identify the sub-risks embedded in the '*expense risk*'. It is frequent to mirror the identification of sub-risks with the categories of expenses (acquisition, administration, overheads…) or the triggers of the deviations (e.g., inflation rates).

  As in the biometric insurance risks, the most common approach of the ORSA is to carry out recalculations of the technical provisions with the stressed assumptions regarding the expenses.

  This risk may have several sources of different nature, some of them rather operational:

  - Calculation of the technical reserve with an inappropriate methodology,
  - Factual errors in the calculation due to ineffective internal control,
  - Lack of data quality (data incomplete, inaccurate or inappropriate -obsolete or not relevant).

- Policy holders' behaviour risk, meaning those deviations in the expected behaviour of the policy holders regarding the take up of the options in the contract that leads to negative impacts on the financial and solvency position of the insurer.

  The ORSA process needs to capture the close interaction of this risk with other risks, especially the reputational risk. As an example, the ORSA process needs to assess the financial impact of an increase of the lapse rates derived from a major event damaging the reputational risk of the insurer. The terms of the insurance contracts are an essential input to assess whether in case of a reputational event of the insurer, the policy holders will have incentives to remain or lapse the insurance contract, and the strength of such incentives.

  Furthermore, the insurer will need to consider that lapse rates may materially increase in case of a financial crisis, when there is an increase of the monetary needs of the policy holders.

  This risk may have different sources, some of them related to the reputational risk such as:

  - Distribution of the insurance contract to customers whose features were not considered at the product development stage (losses for the policy holder inappropriate to their risk profile or not clearly explained during the distribution of the insurance contract).
  - Inequality of the pricing (similar risks with material differences in pricing), leading to reputational damage and/or mass lapses and/or financial penalties.
  - Unfair profit margin leading to reputational damage and/or mass lapses and/or financial penalties.

- Regarding life catastrophic risk. This risk refers to those events of exceptional severity and very low frequency, being the more recent example the dramatic pandemic Covid-19.

  Some insurers consider separately life catastrophic risks while others assess them jointly with non-life catastrophic risks, thus assessing a single category of catastrophic risks.

  The ORSA process needs to identify the main sources of catastrophic events in its life insurance portfolios. It is a common practice to associate life cat events to mortality/disability risk (events that materially increase the mortality/disability rates during short-term period, coming back to the normal mortality/disability rates once the event has disappeared). Once again, the more general approach is to recalculate the technical reserves with a material increase of mortality/disability rates during the short-term period.

- The insurer should assess whether the treatment of life reinsurance as an insurance mitigation technique should be considered within the life insurance risk (then the '*economic capital target*' for life insurance risks is net of reinsurance) or in a different area of risk.

  The allowance in the ORSA assessment of reinsurance as a mitigation technique should require the fulfilment of conditions at least as strict as the list of section *IV.C. ORSA: Risk management*.

  In any case the ORSA process should capture the risks of unexpected losses derived from the default of the reinsurers.

- Consideration of the operational risk. Some cases of mispricing or under reserving are triggered by operational failures within the insurer or due to the mis-functioning of procedures (such as internal control/validation). In other words, such cases are not a materialization of life insurance risk.

  The ORSA process should contain an explicit assessment on the capacity of the insurer to differentiate which of the events triggering life insurance risks are a materialization of operational risks.

  Most of these operational risks are intrinsic to the insurer and therefore the correct approach in the ORSA process is to deal with them by improving the managerial capacity of the insurer.

  The volatility of an operational risk has a different pattern than the volatility of the life insurance risks.

  Nevertheless, where the insurer cannot have a reliable differentiation of the life insurance risks due to operational risks, it seems better to assess those risks regardless of the source of their materialization in the past.

  In any case, the ORSA process shall be explicit on the fact that an '*economic capital target'* additional to the '*regulatory Risk-Based capital requirement'* has been assessed due the existence of deficient or insufficient managerial capabilities. The insurer should take the appropriate actions to adapt its managerial capabilities to its risk profile or vice versa.

- Climate-change related risks. As detailed in section *III.J. ESG Sustainability risks*, the materialization of these risks may impact on several areas of the insurer (non-life and life insurance risks, market risks, operational risks and some non-quantifiable risks, such as reputational and legal risks). The ORSA should consider all these impacts in the respective areas of risks.

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III.F. Investment risks.

Preliminary.

The Insurance Regulatory Authority expects that the business plan of the insurers shall include, as part of the definition of its risk appetite, **self-imposed limits to the investments of the insurer, including off-balance sheet exposures**.

> Those self-imposed limits should refer to the type of admissible investments, credit standing of the exposures, concentration thresholds, currency exposure of the investments, degree of liquidity of the asset (both in normal realizations and realizations under stressed market conditions) and any other feature relevant to define in a pragmatic and concrete manner the investment policy of the insurer within a *prudent investment principle*.

It is also expected that the self-imposed limits to the investments of the insurer shall take into account its risk management capabilities. **The risk appetite should not allow for investments where the insurer is not prepared to identify, understand, measure, manage, mitigate and report their risks**[27].

> The case of derivatives is a conspicuous example of this prudent investment principle. Beema Samiti does not expect that the business plan of an insurer allows for investing in derivatives, unless they are used to mitigate risks and provided that requirements at least as strict as those listed in section *IV.C. ORSA: Risk management* are met.

The definition of the risk appetite does not need to materialize in accurate concrete numbers. It is admissible to define the risk appetite with reasonable ranges.

> For example, the risk appetite on equities and equity-like assets might be set up
>
> - □ not to invest in equities or equity-like assets not actively traded in financial markets,
> - □ not to invest in equities or equity-like assets with a MM months volatility (being 'MM' the average holding period of equities by the insurer) higher than 'xxx',
> - □ the total of equities and equity-like assets to represent among x% and y% of the total asset value, being the range [x,y] not too wide to mean a vague definition of the risk appetite,
> - □ all exposures to the same counterpart or group not higher than z% of total assets.

Regarding the credit standing of the exposure, while the reference to external ratings is generally applied, in case of a material exposure it is expected that the insurer will also set up in the ORSA assessment an internal analysis of the credit quality of such exposure, even being such internal assessment based on publicly available information other than the credit rating.

> It is expected that the internal assessment will reflect any future likely deterioration of the credit standing, even if such deterioration has not been reflected in external ratings yet.

[27] Chapter 4, Risk Management, Paragraph 8(1) of the Risk Based Capital and Solvency Directive, 2022 (2078).

ORSA assessment of investment risks.

Regarding the ORSA assessment, the general practice is to consider the risks linked to changes in the level and the volatility of the market prices of the investments of the insurer, considering as investments those assets that may be traded in markets (regardless the features of the market) and those assets with features sufficiently similar to the investments traded in markets.

Further than level and volatility risks, the ORSA assessment needs to consider the concentration risk with a wide scope (economic sector, geographical area, single name or group exposure, currency of the assets, depositaries where relevant).

Breakdown. It is also a general practice to group the investments into homogeneous classes defined according to their sensitiveness to changes in different macroeconomic magnitudes. For example, grouping in equity instruments, fixed-income instruments, properties, currencies, derivatives.

Relationships. Investment risks are closely related among themselves (e.g., a fall in equities is correlated with an increase in interest rates or a worsening of exchange rates) and also with other risks, such as asset-liability mismatching risk, liquidity risk or asset concentration risk. Furthermore, changes in the level and volatility of market prices are correlated to a worsening of the credit quality of the market participants or to a tight perception of the credit risks.

Therefore, a key issue when quantifying investment risks is the modular structure of the calculations, the assumptions applied regarding the correlation among the different risks and the verification that the modular structure and the correlations capture all the risks surrounding the investments of the insurer.

In any case, the Insurance Regulatory Authority expects that the insurer shall apply in the ORSA assessment a quantitative approach like the one used in its day-to-day financial activities.

> The larger insurers will likely apply generally accepted advanced metrics with a confidence level consistent with the risk appetite laid down in the business model (e.g., Value at Risk or the Expected Shortfall -also known as Conditional Value-at-Risk or Tail VaR).
>
> The medium and small insurers with a low risk profile will likely follow the calculation of the *regulatory Risk-Based Capital Requirement*, although increasing the relevant parameters where the business model sets up a higher confidence level or where there is some concentration of the portfolio of assets (economic sectors, geographical areas, single name of group exposures, currencies other the national currency).

Where the quantitative approach of the ORSA assessment diverges from the one laid down in the *regulatory Risk-Based Capital Requirement* (because the insurer considers that it reflects better the material risks or material sub-risks), Beema Samiti expects that the insurer shall be able to demonstrate that such different approach is integrated in the organization and decision-making of the insurer (i.e., it is not just a conceptual elaboration).

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III.G. Asset-liability management (ALM) risks and liquidity risks.

The business plan of the insurer should define its risk appetite considering at least the following in regard the asset liability management risk and liquidity risk:

- The admissible duration mismatch among the assets and liabilities, including off-balance sheet items,
- The admissible currency mismatch among the assets and liabilities, including off-balance sheet items,
- The admissible degrees of dependence among the risks of the assets and the risks of the liabilities, considering at least the impact on the assets and on the corresponding liabilities of changes in the risk-free interest rates term structure,
- The admissible degrees of mismatch among insurance business and reinsurance cessions, including at least timing, currency and any basis underwriting risk.
- The admissible liquidity constrains and shortfalls, both in normal circumstances and under stressed market conditions.

The limits to these mismatches and liquidity risks shall consider the risk management capacity of the insurer and the availability to buy in the market assets and liabilities to improve the asset and liability matching.

The business plan and the policy on ALM shall respect the principles laid down in the Annexure V, Chapter 5.2. of the Risk Based Capital and Solvency Directive, 2022 (2078).

Those insurers assuming medium and long term exposures are expected to carry out stress test exercises comparing the short, medium and long-term cash outflows (derived from the service of the corresponding insurance contracts) to the short, medium and long-term cash inflows (derived from the investments and the premiums of the corresponding insurance contracts).

The stress test should shock at least the risk-free interest rates term structure, both upwards, downwards and changing its slope, according to the features of the future cashflow vectors.

Where the service of the insurance contracts will likely require the realization of assets or reinvestments of inflows, the stress test should also shock any other financial magnitudes that may influence the realization value of those assets or the reinvestment of inflows.

When projecting future cash inflows, the insurer should consider the probability of not receiving the inflow (e.g., the inflows of coupons or of the maturity value of a bond may be not received or received at a lower amount in case of a default).

In the case of ALM it is even more applicable the progressive implementation of the ORSA assessment.

At a first instance, it is expected that the ORSA assessment regarding ALM risks and liquidity risks shall basically have a qualitative nature. At this initial stage the most important goal is the insurer

considers the ALM risks and the liquidity constrains and shortfalls (either existing or future). Subsequently, the insurer should integrate these features in its managerial decisions applying a prudent approach. The less capacity to measure and manage these risks, the more prudent managerial decisions.

In successive runs it is expected that the insurer will progressively implement the relevant measurement techniques, starting with simple and easy-to-understand quantitative techniques, and evolving according to the materiality of the risks and its complexity.

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III.H. Credit risks.

Credit risk relates to any asset inflow, off-balance sheet items and also any future commitment to pay to the insurer. Credit risk refers to the risk of receiving a lower amount than the inflow committed, having a **delay** in the inflow (which at the end means a lower amount due to the time value of money), or obtaining a lower realization value of the asset derived from the **unexpected future deterioration of the credit quality** of the counterpart or even its **default**.

The ORSA assessment is expect to breakdown these exposures according to the impact of each of the three risks referred to in the previous paragraph. In most of cases the breakdown will differentiate

on the one hand the assets with a material sensitivity to the deterioration of the credit standing of the counterpart (assets susceptible of being transferred while continuing the activity of the insurer).

on the other hand, it makes sense to group the assets whose main risk is the impairment risks, such as reinsurance, intermediaries and other balances.

Regarding the credit standing of these exposures, while the reference to external ratings is generally applied, in case of a material exposure it is expected that the insurer will also set up in the ORSA assessment an internal analysis of the credit quality of such exposure, even being such internal assessment based on publicly available information other than the credit rating.

It is expected that the internal assessment will reflect any future likely deterioration of the credit standing, even if such deterioration has not been reflected in external ratings yet.

Therefore, an additional risk to consider at least in the ORSA assessment is that the deterioration of the credit standing of the counterpart might be above the current probabilities for such deterioration.

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III.I. Operational risks. Other risks.

The consideration of operational risks in the ORSA may materialize with a wide range of options regarding its level of detail and complexity.

Having in mind the features of the Nepalese insurance market, Beema Samiti expects that the ORSA assessment of the Nepalese insurers will quantify the economic capital for operational risks applying a simple approach aligned with the formula of the *regulatory Risk-Based Capital Requirement* [28].

Nevertheless, since the *regulatory Risk-Based Capital Requirement* is based on the assumption that there is already an appropriate governance of the insurer, the Insurance Regulatory Authority expects that the ORSA assessment of the operational risk shall include an increase of the regulatory capital risk charge for the operational risk, according to the degree of progress of the insurer in implementing a robust governance structure (the lower degree of progress, the higher increase of the parameters).

Therefore, at this stage Beema Samiti recommends using in the ORSA assessment of the operational risk a calculation based on:

(i) the capital risk charge for the operational risk set up in the *regulatory Risk-Based Capital Requirement*, (once applied the relevant cap and floor) multiplied by

(ii) a factor (e.g., 125, 150, 200, 300, 500 per cent of increase), depending on the scoring of the insurer in the material areas of its governance.

The scoring of the governance of the insurer (e.g., scoring from 0 as the best level of governance, to 4 standing for the case where the insurer has not materially progressed its transition towards a risk-based management). The scoring might be the outcome of the individual scoring of the following areas (illustrative and non-exhaustive list):

- Quality and completeness of the business model and strategic plan, in particular definition of the risk appetite and risk tolerances, and the ESG values.

[28] Annexure III Risk Based Capital of Directive Risk Based Capital and Solvency Directive 2022 (2078) sets up the following calculation of the regulatory capital charge for the operational risks :

(55) Capital risk charge for operational risks

1. Operational risk capital charge is the higher of;

a) 0.5% of gross policy provisions; or

*b) 4% of gross premiums over the last 12 months, plus another 0.4% on the last annual growth of premiums above 20%. [4% of GP1+ Max (0 , 0.4% * ((GP1-GP0) - 20% * GP0))];*

where 'GP1' identifies the gross premiums of the last 12 months and 'GP0' the gross premiums of the year before the last 12 months.

2. The total operational risk requirement will be subject to an overall cap of 10% and a floor of 5% of the RBC (excluding operational risk) applies.

- Appropriate functioning of the Board of the insurer and completeness of its rules of functioning (in particular, but not only, fit and proper requirements, remuneration policy and ORSA).
- Completeness and effective implementation of the main policies: business continuity, fit and proper requirements, remuneration, product oversight governance, investments, environmental, social and governance sustainability,
- Appropriate internal organizational structure and management of conflict of interest.
- Appropriate functioning of the risk management system and of the ORSA process,
- Appropriate functioning of the internal control, compliance, internal audit and outsourcing,
- Quality and effective application of the governance requirements regarding the valuation of assets and liabilities, the calculation of the capital requirement and the overall solvency needs, in particular documentation and independent validation.
- Internal reporting and processes to control the quality of the reporting to supervisors and of the information publicly disclosed.
- In case of insurers belonging to groups, governance and policies regarding intra-group transactions and concentration risk in the group.

It is a general practice that insurers consider in its ORSA assessment other risks that do not fall in the category of operational risks properly speaking or into the categories described in the previous sections. It is the case of legal risks (e.g., changes in legal or tax framework), reputational risks (e.g., malpractices of other insurers damaging the image of the insurance sector as a whole) and group risks (intra-group transaction risks, contagion risk…). Group risks should be understood in a wide sense, including both the case of the risks generated by a parent company that are transmitted to their subsidiaries and the case of risks derived from the behaviour of persons with a material influence on the insurer that may be transmitted to the insurer.

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III.J. ESG Sustainability risks.

The international developments regarding ESG sustainability risks show that those risks are material for both non-life insurers, life insurers and reinsurers. Those risks may materialize either in the asset side of the balance sheet, in the liability side and also at the entity level, challenging the role that the insurance sector should play in the society.

Beema Samiti highlights its sensitivity to the consequences that climate-change related risks may have for people living in areas or working in activities that may be severely damaged or impacted by those risks. Beema Samiti endorses the ambition of the United Nations '*No one no place left behind*" and acknowledges the challenge that ambition means to the insurance sector to reduce the number of people without an insurance protection (protection gap). The protection gap also includes the lack of an insurance coverage appropriate to the needs of persons, being the most conspicuous example, the lack of insurance coverage tailored to the needs of women. Worldwide fora identify gender discrimination as a major area of concern regarding any activity, insurance included.

Having all this in mind and according to the international recommendations regarding insurance and ESG risks, Beema Samiti expects that, applying the proportionality principle, the Nepalese insurers will face the following three milestones to appropriately integrate ESG sustainability risks in the ORSA process:

- The Board and the Senior Management to receive an adequate training on the framework regarding 'Climate-related risk/climate risk'[29], 'Environmental risks'[30] and 'Social risks'[31].

  This training should include, among other issues, the international progress on, firstly, the necessary contribution of the insurance sector to the resilience of most of inhabitants to climate-change related risks and, secondly, the contribution of the Nepalese insurers to diminish social exclusion and protection gap, and to prevent any form of discrimination, being the utmost topic at stake the women, minorities and people with unfavourable conditions of life.

- The second milestone refers to the business plan of the insurer, to include appropriate considerations on principles and risk appetite regarding ESG sustainability risks. The business plan should have a sustainability centric approach, where the interests of all groups, and especially women, be protected as much as the capabilities of the actuarial and financial techniques make possible. In particular:

  Regarding 'Climate-related risk / climate risk' and 'Environmental risks', the business plan should set up the overall principles to apply in the following areas:

[29] With the meaning laid down in the Directive on Climate Related Risks Disclosures 2022 (2078).

[30] With the meaning laid down in the Directive on Climate Related Risks Disclosures 2022 (2078).

[31] '*Social risks'* refer to the losses the insurer may have due to the criteria applied in its relationships with policy holders, employees, suppliers, shareholders and the overall community. This could involve wage and labour issues, philanthropy, workplace safety, and diversity, equality and inclusion.

- cooperation of the insurer in the political and social actions of general scope to increase the awareness of the current and potential clients about climate-change related risks and to provide incentives for taking the relevant actions,
- pricing incentives for exposures where the policy holder is actively aware of climate risks,
- support to policy holders for implementing mechanisms that provide a short, medium and long-term mitigation of climate-change related risks[32],
- where possible, service of the insurance contract in the manner that best prevent and mitigate future climate-change related claims,
- inclusion in the investment policy of the insurer of a prioritization of assets compatible with climate protection and aligned with the environmental and social preferences of the customers. On the contrary, identification of activities whose environmental risk (either transition, physical or liability risk) is deemed inappropriate

Regarding '*social risks*', the business plan should specify the principles to avoid, inequality, foster social inclusivity and to prevent or reduce protection gaps. '*Social risks*' are not just on transparency but how effectively the insurer aims at enhancing diversity and inclusion in its day-to-day operations and in the Board and the Senior Management functioning. The insurance protection of women, minorities and people with unfavourable conditions of life should rank at the top of the principles and values of the business plan.

When setting the principles and the risk appetite regarding climate-change related risks, it is advisable that the business plan considers the following risks[33]:

<table>
<tr><th colspan="2">List (non-exhaustive) of climate-change related risks for insurers</th></tr>
<tr><td colspan="2">Investments (and other assets where relevant). Risk of loss of market value.
In case of investment funds or similar collective instruments, the assessment is expected to be made with reference to the underlying assets of the collective instrument.</td></tr>
<tr><td>Investments in activities that may be directly exposed to transition risk [34].
This risk may materialize in a depreciation of assets as result of regulatory developments that would penalise or even</td><td>At least the following activities are likely directly exposed to transition risk:
▪ fossil, electricity, gas or water-producing sectors, intensive energy sectors and activities deemed too intensive in the emission of greenhouse gases (GHG).</td></tr>
</table>

[32] Number (3) subparagraph (5) of the Directive on Climate Related Risks Disclosures 2022 (2078).

[33] Annexure I, item (1)(d) of the Directive on Climate Related Risks Disclosures 2022 (2078).

[34] *Transition risks* are risks that arise from the transition to a low-carbon and climate resilient economy. They include policy risks, technology risks, legal risks, market sentiment risks and reputational risks. These risks are especially relevant when poorly anticipated or occur abruptly.

prohibit certain activities considered damaging for the environment.	▪ Transport activities based on fossil engineers. ▪ In general activities deemed too intensive in the emission of greenhouse gases (GHG)
Investments that may suffer directly the *physical risk*[35], due to the location of its premises, production plants, etc. Risk of loss of value of the investment due to physical climate-change related events that directly damages the assets that materialize the investment.	At least the following activities are likely directly exposed to physical risks: ▪ Agriculture in areas where hot weather, hail, high winds, extreme precipitation, drought and flooding might happen. ▪ Houses in areas where hail, high winds, extreme precipitation, drought and flooding might happen. ▪ Commercial and industrial activities where high winds, extreme precipitation and flooding might happen.
Investments not directly exposed to transition risk but that may suffer it indirectly.	At least the following activities are likely indirectly exposed to transition risks: ▪ suppliers of goods and services to activities directly or indirectly under the transition risks, ▪ activities heavily dependent from suppliers directly or indirectly under the transition risk, ▪ collateralized assets whose collaterals are directly or indirectly exposed to transition risk.
Investments not directly exposed to physical risk but that may suffer it indirectly	At least the following activities are likely indirectly exposed to physical risks: ▪ suppliers of goods and services to activities directly or indirectly under the physical risks, ▪ activities located in countries with a material exposure and low preparedness to physical risk[36], ▪ activities whose customers are mainly located in areas exposed to physical risks,

35 *Physical risks* are risks that directly arise from the physical effects of weather and climate phenomena. They include acute physical risks (e.g. heatwaves, floods, cyclones, hail, high winds and wildfires) and chronic physical risks (e.g., temperature, precipitation, sea levels, droughts).

Physical risks may result in losses both in the asset side (loss of value of investments held by insurers and issued by entities affected by these climatic events), the liability side (increase in the frequency and cost of claims to be settled by insurers) and at entity level.

36 The vulnerability of countries to physical risk may rely on the assessment of the academia (e.g., University of Notre Dame → Rankings // Notre Dame Global Adaptation Initiative // University of Notre Dame (nd.edu).

	▪ collateralized assets whose collaterals are directly or indirectly exposed to physical risks.
Investments exposed to *inherent liability risk*[37]	At least the following assets are likely exposed to inherent liability risks: ▪ investments financing the development of polluting or highly emitting greenhouse gases industries and activities.
Obligations from insurance contracts (and other liabilities where relevant). Risk of new or higher obligations to honour.	
Physical risks materialized in claims directly derived from new climate events, or climate events whose frequency or whose intensity increases.	This is likely to have a material impact for business lines relating to ▪ in non-life insurance, property damage (personal, professional and agricultural), natural disasters, transportation or construction, ▪ in life insurance, sharp increases of mortality rates due to physical climate-change related events.
Claims derived from the coverage that the insurer has committed in liability insurance contracts	This is the case of professional insurance, civil liability or infrastructure construction for companies considered to be dangerous for the environment or heavy polluters.
Indirect claims derived from the consequences of climate-change related events (usually physical risks)	This is the case of ▪ an increase in morbidity rates due to the temporary disruption in supply of clean water, ▪ body and mental diseases exacerbated after the climate event due to damages to the health care system.
Entity level	
Reputational risk derived from the lack of ESG principles or its insufficient quality or lack of effective adherence in the day-to-day activities (e.g., the insurer financing companies considered to be dangerous for the environment or heavy polluters). This impact may be intense in the case of the social risks, in particular regarding inequality, discrimination or labour conditions.	

[37] '*inherent liability risk*' means legal and reputational risks related to the financial impacts of clearing requests from those suffering damage due to climate change.

It might be also severe in case of pricing policies that at the end mean the exclusion or penalization of certain geographical areas and indirectly certain social groups or ethnics.
Loss of value of the insurer due to the loss of economic capacity of its clients as a consequence of any climate-change related risk.
Non-renewal of contracts due to repricing taking into account climate-change related risks.
Transition risk materialized in the non-renewal of insurance contracts resulting from the termination of certain insured activities deemed to be too polluting in greenhouse gases (GHG).
Risk of worse reinsurance terms and conditions and worse/more expensive financing capabilities due to poor ESG sustainability values or inappropriate management of ESG sustainability risks.
Threats to the continuity of the insurer's activities due to physical risks affecting the own offices of the insurer or the suppliers' operation premises
Liability risk derived from sues to the insurer due to its behaviour in regard investments in activities damaging ESG values

Beema Samiti expects that the Board and the Senior Management of insurers become aware of at least these climate-change related risks and of the need to monitor them and make progress on the assessment of its impact.

Nevertheless, Beema Samiti does not expects that each insurer gathers inside the capacity to build up the relevant climate-change scenarios, their update and some of the climate technicalities or inputs applied for the ORSA assessment of climate-change related risks.

For transition risks the insurers will need an identification of the activities and if possible of the companies whose main activities are materially exposed to transition risks. The use of external ESG ratings, carbon footprint external measures of investments/assets, and generally accepted academic developments seems a pragmatic way to start the implementation and assessment of the impact of climate-change related transition risks.

For physical risks the insurers will need a very granular identification of the areas of Nepal exposed to each of the physical risks and an estimate of the degree of severity that the physical risks may materialize in each area. This input for the ORSA assessment is usually based on national public and private institutions specialized in meteorological and geographical analysis. The sooner an in-depth cooperation at sectoral level is set up the sooner the insurer will be able to perform the ORSA assessment of climate-change related physical risks.

Regarding the scenarios to consider in the ORSA assessment, the scenarios of the Network for Greening the Financial System have become a generally accepted international benchmark. The specific adaptation or more detailed development of those scenarios to the Nepalese territory and economy is also an area where sectoral cooperation with meteorological and geographical services and the academia will likely help the ORSA assessment of insurers.

□ The third milestone means that the list of risks above should be integrated in the system of governance of the insurer, risk-management system and the ORSA assessment identifying the material exposures and assessing their impact.

At this stage Beema Samiti does not expect insurers to assess the climate-change related risks of their liability side and at entity level with other techniques different than the scenarios analysis.

For this purpose, Beema Samiti does not expect insurers to go beyond the requirements of the Directive on Climate Related Risks Disclosures 2022 (2078).

Beema Samiti is aware that the first quantification in the ORSA of an economic capital target regarding sustainability risks will be simple approximations, which would improve in further runs of the ORSA in terms of data quality, accuracy and scope.

Regarding data quality of assets, the insurer should prepare a plan to collect the relevant information of its investments (e.g., ESG ratings, carbon footprint external measures, information of the underlying assets of the collective investments, where possible the geographical location of the activities that an investment means…).

Regarding data quality of liabilities at least the geographical location, with sufficient granularity, and the economic sector of the insured risks seem necessary to assess whether there is an exposure to physical risks, transition risks or liability risks, either direct or indirect. Other characteristics might be relevant for certain types of insurance coverages (e.g., ESG rating for pollution liability insurance). Finally, the insurer should gather any other information appropriate to prevent discrimination of women, minorities and people with unfavourable conditions of life.

Regarding ESG sustainability risks the ORSA process shall deliver

- an assessment of the consistency of the current risk profile of the insurer compared to the risk appetite and risk tolerances of the business model, and
- an assessment of the performance achieved regarding the three targets of climate-change related risks that the insurer should select as laid down in the Annexure I of the Directive on Climate Related Risks Disclosures 2022 (2078).

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III.K. ORSA: 'Economic available capital resources'.

Section *I.H. Which are the main deliverables of an ORSA process?* reflects that the ORSA assessment should include, among other elements:

- An internal own assessment of the current capital resources available to absorb unexpected losses ('*economic available capital resources*') and of the foreseeable capital resources available in a future unfavourable situation of the insurer, estimated under prudent assumptions.

  This element should include both a quantitative assessment (amount of each type of '*economic available capital resources*' and thresholds) and a qualitative assessment (features and quality of the *'available capital resources'*).

  Where the ORSA process has an insurer's specific definition of '*available capital resources*', it is expected that such definition will be more restrictive than the regulatory definition (e.g., the insurer may not wish to use capital resources other than those of highest quality, or may apply stricter thresholds to the capital resources that are not qualified as belonging to the highest quality).

The business plan of the insurer should specify the insurer's preferences about the level and type of *'available capital resources'*, including both the current sources of capital and the future sources of capital that might be needed in case of severe unfavourable scenarios leading the insurer to a breach of its total economic capital target (or a breach of the *regulatory Risk-Based Capital Requirement*).

When the ORSA assessment compares the actual risk profile of the insurer with its business model, such comparison should include not only the consistency of the actual risks, but also the consistency of the *'available capital resources'* with the business model, both current and those capital resources that will eventually be needed in the future in case the ORSA assessment shows such need.

In the assessment of the future capital resources, the ORSA needs to take a prudent approach, considering the possibility of receiving a lower amount of capital (the worse the situation of the insurer, the higher probability of receiving a lower amount of new capital resources).

Additionally, the ORSA assessment needs to consider the cost for the insurer of retributing the capital, which will likely increase as the solvency position of the insurer deteriorates.

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Chapter IV. Usual operation of the ORSA process.

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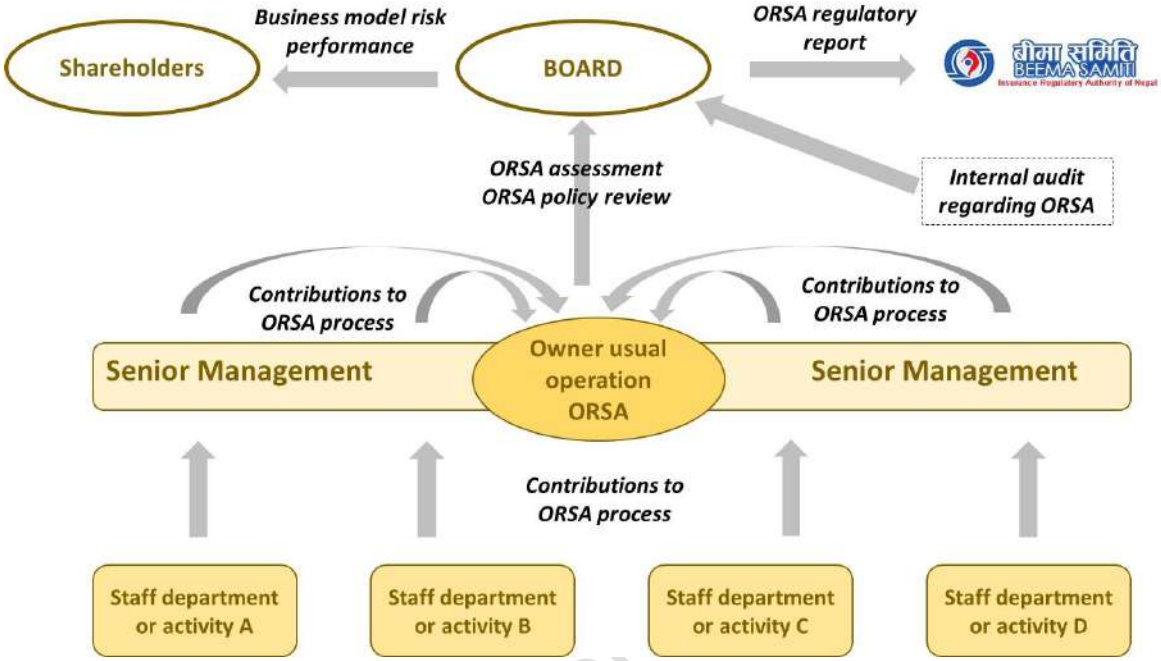
IV.A. General overview of the usual operation of the ORSA process.

The following chart summarizes the main bottom-up flows of the usual operation of the ORSA process.



The insurer has discretion to organize the reporting according to their departments or rather considering its business units.

Underpinning these flows there are other infrastructures, such as the internal control system or the IT storage applications.

It is important to note that the ORSA requirement focuses on goals, deliverables and features. Neither the ORSA requirement nor the Insurance Regulatory Authority impose a specific organizational structure to the insurer. **The insurer has complete freedom to organize its departments, business units, infrastructures,... provided they achieve the goals, deliverables and features of the ORSA process (beyond the rest of elements of the good governance of an insurer).**

Further than the bottom-up flows, there are top-down flows essential for the good functioning of the ORSA. They refer to the regular training and information that all levels of the staff should receive about:

- □ their role in the ORSA process,
- □ the importance and features of the ORSA process of the insurer,
- □ a proactive monitoring to verify that the ORSA process is applied in the levels under her/his coordination, and

- regularly updated information on the outcomes of the ORSA process[38].

The ORSA policy should reflect these top-down flows and the internal audit should verify that they are effectively being carried out, including simple tests to the staff to check their knowledge of the ORSA process and their understanding of the information received about the usual operation of that process.

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[38] Paragraph (72) of Annexure V.1 Own risk solvency assessment of Risk Based Capital and Solvency Directive 2022 (2078).

IV.B. Owners of the usual operation of the ORSA.

Within the context of Section '*I.E. Who are responsible for ORSA*' and the chart in the previous section, the *ORSA operational owner* is the link between the Board and the rest of the organization of the insurer, channelling upward and downward flows among both parts, with the only exception of the internal audit, which should have direct and independent access to the Board (see the chart of the previous section of this tool).

While the *ORSA operational owner* is under the member or members of the Board appointed as referred in Section '*I.E. Who are responsible for ORSA*', the owner should carry out its roles regarding the usual operation of the ORSA with authority over the rest of the organization.

The tasks of the *ORSA operational owner* should be, at least:

- To elaborate a comprehensive annual workplan of the ORSA, distinguishing between the regular actions and the one-year actions approved by the Board,
- To sign-off the ORSA assessment, a report on the consistency of the actual risk profile of the insurer with the risk appetite and risk tolerances defined in the business model of the insurer, and the proposal for review of the ORSA policy, delivering all of them to the Board for its steering,
- To deliver for the Board's approval the regular ORSA supervisory report that the insurer is required to send to the Insurance Regulatory Authority,
- To ascertain that the ORSA reports are timely delivered to the relevant decision-making processes, according to the ORSA policy,
- To monitor that all departments/activities are providing complete reporting as set out in the ORSA policy in a timely manner, to the unit or units responsible for consolidating all elements that compose the ORSA assessment (see section *I.H. Which are the main deliverables of an ORSA process* for further details).

  Regarding the ORSA report within each department/activity it is up to the insurer's discretion to allocate its monitoring to the responsible for each department/activity or to the *ORSA operational owner*.
- To monitor that the activities of the ORSA that have been outsourced meet continuously the relevant requirements (see section *V.F. Supervisory review of ORSA* for further details).
- To verify that the usual operation of the ORSA is adequately documented. The documentation of the ORSA should include at least:
  - the policy for the ORSA,
  - a record of each ORSA, describing in detail the methodologies, assumptions and parameters applied for the valuation of assets without a reliable market price, the valuation of the technical reserves and the definition of the sensitivity analysis, stress tests and reverse tests.
  - an internal report on each ORSA,

- To check regularly the dashboard implemented to identify whether the risk profile of the insurer has materially changed and hence if it is necessary to run a new ORSA process, updating the ORSA assessment, reviewing the ORSA policy and verifying the consistency of the new risk profile with the risk appetite and risk tolerances defined in the business model.

  At a first stage, this check might be carried out every six months. As soon as possible the insurer should perform the check, at least, on quarterly basis.

- To monitor that all assurance mechanisms are in place, having direct responsibility for verifying, at least, that the validations of the calculations underpinning the ORSA assessment are carried out by personnel (internal or external to the insurer) independent from those that made the calculations,

- To lead the training activities regarding ORSA (either specific or embedded in other training activities) and the activities addressed to all levels of the staff to inform on the outcomes of the ORSA process, of the monitoring of its functioning and of the actions approved by the Board to improve the ORSA policy or the ORSA process.

- To deliver on an annual basis to the Board the documentation necessary to make possible a well-informed review of the functioning of the ORSA process by the Board.

- To deliver to the Board the proposals regarding any mis-functioning on the ORSA process or flaws of the ORSA policy that the owner may be knowledgeable of.

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IV.C. ORSA: Risk management.

The insurer shall implement a risk control, risk mitigation, risk monitoring and review in accordance with the Risk Management Guidelines for Insurance Company, 2019 (2076) Beema Samiti.

Regarding mitigation, further than the referred guidelines, the ORSA policy should specify requirements that a mitigation technique must meet for it to be considered in the ORSA assessment for a reduction of the '*economic capital target*'. Those requirements shall be consistent with the risk appetite and risk tolerances of the business model of the insurer.

A mitigation technique should only be allowed to reduce the ORSA assessment of the '*economic capital target*' where at least all the following conditions are met

- there is a written contractual arrangement, and its content and the transfer of risk are legally effective and enforceable in all relevant jurisdictions,
- the transfer of risk is clearly defined and incontrovertible,
- there is no material basis risk, unless it is captured in the ORSA assessment. Basis risk in this context means the risk resulting from the situation in which the exposure covered by the risk-mitigation technique does not perfectly correspond to the risk exposure of the insurer,
- the insurer is able to ensure the effectiveness of the written arrangement and to address the risks related to that arrangement on an ongoing basis,
- the insurer has, in the event of a default, insolvency or bankruptcy of a counterparty or other credit event set out in the written arrangement, a direct claim on that counterparty,
- there is no double counting of risk-mitigation effects in the ORSA assessment of the '*economic capital target*',
- the risks emerging from the mitigation technique are adequately captured in the ORSA assessment of the '*economic capital target*'. For example, in the case of reinsurance the ORSA assessment should capture the counterparty risk for both the current balances with the reinsurer and for the balances that would appear during the time horizon of the ORSA assessment.

Regarding the monitoring and review, the ORSA assessment should develop severe but plausible stresses through scenario analysis appropriate to the risks considered in that assessment. For this purpose, the insurer may use one or several of the following techniques:

- sensitivity analysis, understood as an unfavourable deviation of a single risk or set of highly correlated risks,
- stress test, understood as an unfavourable deviation of several risks of different nature or source. The most appropriate approach to design a robust stress test is to build a stressed macroeconomic scenario having in mind the relationship among different marcoeconomic

variables considered in that scenario. From those upper-level shocks, the insurer would derive consistently the microeconomic stresses for its activities.

A particular case of stress tests are the stresses referred to the climate-change related risks (refer to section *III.J ESG Sustainability risks* of this toolkit)

- finally, the insurer may also consider the reverse stress test, understood as the approach where the insurer firstly assesses the volume of losses that would lead to a breach of its risk appetite or to a likely permanent discontinuity of its business. From those losses and moving backwards, the analysis derives the shocks that would be needed at macroeconomic and microeconomic level (sometimes labelled as '*killer scenarios*').

  Where it is plausible the '*killer scenario*' occurrence, the insurer should at its own initiative revise its business model and its overall capital resources needs.

In the case of macroeconomic scenarios, it is a common practice to use generally accepted scenarios (including those that the Insurance Regulatory Authority may set up). Nevertheless, the insurer needs to assess

Firstly, whether the macroeconomic scenario fits with the characteristics of the business model of the insurer and its actual risk-profile,

Secondly, the relationship of the macroeconomic scenario with the microeconomic scenario (i.e., the impact of the adverse evolution of macroeconomic scenarios on the current and future financial and solvency condition of the insurer).

IAIS ICP 16.2.- The supervisor requires the insurer's ORSA to:

• encompass all reasonably foreseeable and relevant material risks including, at least, insurance, credit, market, concentration, operational and liquidity risks and (if applicable) group risk; and

• identify the relationship between risk management and the level and quality of financial resources needed and available;

and, as necessary:

• assess the insurer's resilience against severe but plausible macroeconomic stresses through scenario analysis or stress testing; and

• assess aggregate counterparty exposures and analyse the effect of stress events on material counterparty exposures through scenario analysis or stress testing.

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IV.D. Internal and external reporting.

The usual operation of the ORSA requires an integrated set of reporting lines within the insurer to provide the inputs necessary to elaborate the ORSA assessment.

Further reporting lines are needed to move the ORSA assessment throughout the governance of the insurer.

A failure in these lines of reporting might jeopardize the timely completion or use of the ORSA assessment.

The ORSA policy should contain all the reporting lines within the insurer, describing the content of each line, the senders and addressees, deadlines and the storage of those reports and their supporting documents in the IT system of the insurer.

Furthermore, the insurer should have implemented adequate controls to verify that in each execution of the ORSA assessment the relevant reports are timely delivered with the required content. Such verification is direct responsibility of the *ORSA operational owner*, which should report her/his findings.

For further details refer to the section *II.E. Insurers: Internal reporting related to ORSA*.

It is also part of the ORSA process to deliver the external reports regarding the ORSA, with the main compulsory report being the *regular ORSA supervisory report*.

Furthermore, the insurer should report to third interested parties (shareholders, financial investors, reinsurers…) the relevant information about the ORSA assessment and its consistency with the business model set up by the insurer. The insurer will adapt the level of detail of the information publicly disclosed to the features of each interested third party.

The ORSA policy should deal with the external reporting lines of the ORSA process similarly as stated above for the internal reporting lines.

For further details regarding the regular ORSA supervisory report refer to the section *V.E. ORSA supervisory report*.

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IV.E. Actuarial role and ORSA.

It is expected that the actuarial function of the insurer:

a) provides input as to whether the insurer would comply continuously with the requirements regarding the calculation of technical reserves,

b) identifies potential risks arising from the uncertainties connected to this calculation.

It seems advisable that the actuarial function supports the ORSA process by participating to the relevant extent in the following tasks:

- □ Identification of any difference among the ORSA and the *regulatory Risk-Based Capital requirement*. In particular, whether the actual risk profile materially deviates from the assumptions underlying the calculation of the *regulatory Risk-Based Capital requirement*,
- □ Identification, measurement and modelling of risks applied in the calculation of the '*economic capital target*'. In particular, the actuarial function should contribute to the identification of risks regarding the valuation of technical reserves, underwriting and reinsurance,
- □ Analysis of the adequacy of overall solvency needs according to the risk appetite and risk tolerance of the insurer,
- □ Analysis of the effect of changes in the business model, strategic plan and policies on the '*economic available capital resources*' and the '*economic capital target*',
- □ Whether the ORSA is aligned with the framework relating to the adequacy of premiums,
- □ Assessment of the appropriateness of sensitivity analysis and stress tests to capture actual and emerging risks,
- □ Appropriateness of the consideration in the ORSA of any mitigating action, including future management actions,
- □ Assessment of the achievement of the strategic plan in respect of insurance portfolio development, new business and future participation features, including those of discretionary nature,
- □ Appropriateness of the methodology to identify any event that might trigger a non-regular ORSA assessment and report (e.g. due to material changes in the risk profile of underwriting, existing business or reinsurance or due to mergers and acquisitions).

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IV.F. Assurance of ORSA quality

Why assuring ORSA?

Assuring the high-quality of the ORSA is essential because the ORSA assessment is a key information for steering the insurer in line with the risk appetite and risk tolerances defined in the business model of the insurer.

Lack of quality of the ORSA assessment will mislead the insurer towards wrong decisions while keeping the insurer blind about the consequences, and eventually putting the continuity of the insurer as well as the interests of the policy holders and other stakeholders (shareholders, staff, financial system…) at severe risk.

Furthermore, due to the holistic nature of the ORSA process (involving all departments/activities of the insurer and all levels of it staff) there are several potential points of failure which hinder the achievement of the appropriate ORSA outcomes. This makes the assurance a more challenging exercise.

The Insurance Regulatory Authority pays important attention to the ORSA, to the extent that an appropriate functioning of the ORSA is an essential part of an appropriate risk management system (ERM) of the insurer, and consequently, a necessary component of a good governance of the insurer. Assuring the high quality of the ORSA improves the supervisory perception of the insurer.

Therefore, both the Board and the *ORSA operational owner* should show high interest in assuring the quality of the ORSA process.

Consequently, the ORSA policy should contain a detailed description of:

- the ways to assure the high-quality of the ORSA and
- the actions of the Board and of the *ORSA operational owner* in respect of the feedback provided by the assurance mechanisms.

How to assure ORSA.

Guideline 4.4. of the Risk Management Guidelines for Insurance Company, 2019 (2076) are fully applicable for the assurance of the ORSA.

Regarding the internal control a key element is the documentation of the calculations carried out as part of the ORSA process, and the validation of the calculations by persons different and independent from those that carried out the calculations.

The validation shall cover the following areas, having in mind what the ORSA policy sets up in respect of each area:

(a) the quality of the data used as inputs in the calculations,

(b) the appropriateness of the methods, assumptions and parameters, including the simplifications applied and any other application of the proportionality principle,

(c) the consistency of the stress tests applied,

(d) the lack of material error in the numerical operations,

(e) the plausibility of the assumptions made regarding the current and future '*economic available capital resources*'.

Regarding the internal audit, its scope should include:

- □ whether there is an effective internal control system that guarantees that ORSA complies with Directive Risk Based Capital and Solvency Directive 2022 (2078), the Risk Management Guidelines for Insurance Company, 2019 (2076), and this toolkit (unless justified reasons to diverge from this toolkit while achieving the outcomes and deliverables).
- □ whether there is an effective internal control system that guarantees the completeness and clarity of the ORSA policy, its regular review and the sign-off by the Board
- □ whether the functioning of the Board regarding the ORSA and the functioning of the *ORSA operational owner* is according to the regulatory framework and the ORSA policy,
- □ whether there is an effective internal control system that guarantees that the ORSA assessment is considered in the decision-making processes and there is written evidence of how that assessment is considered and to what extent has influenced the final decision.

  This assurance shall be carried out more frequently for the decision-making process of, at least, the capital resources management, of the business model and strategic plan, and of the product development and design.
- □ whether there is an effective internal control system that guarantees that the ORSA inputs meet the data quality standards set up in the ORSA policy,
- □ whether the processes for the documentation of the ORSA policy, the ORSA procedures, each ORSA assessment and the internal and external reports are consistent with the ORSA policy,
- □ whether the other lines of defense[39] are effective regarding the ORSA, and
- □ whether eventually the ORSA meets its goals as set up in section I of this tool.

Furthermore, the insurer should consider the relevance of an external review of the most critical parts of the ORSA assessment. In particular, the methodologies for risk measurement and aggregation of risks may be externally reviewed on pluriannual basis (e.g., every three years).

> *(IAIS ICP 16.11.1). Where appropriate, the effectiveness of the ORSA should be validated through internal or external independent overall review by a suitably experienced individual*

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[39] Guideline 4.4 of the Risk Management Guidelines for insurance company (2076) and related guidelines.

Chapter V. Supervision of the ORSA.

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Supervisors: Steps to implement the supervision of ORSA

Regulatory actions to implement ORSA

Organizational adaptations

Supervisory ladder

ORSA supervisory report

Supervisory review regarding ORSA

V.A. Supervisors: Steps to implement the supervision of the ORSA.

The following list contains an illustrative example of the steps to implement the supervision of the ORSA:

1st. step. Training of the Board and all levels of the supervisory staff of the Insurance Regulatory Authority regarding the role of the ORSA process in the governance of an insurer, the usual operation of the ORSA and the content of the ORSA policy. This toolkit may be used for this purpose.

2nd step. The Board of the Insurance Regulatory Authority is recommended to reflect in a written document the supervisory expectations from the implementation of the ORSA process by the supervised insurers. The public disclosure of those expectations will provide insurers with a clear description of the targets to achieve. The publication of this document, in particular its Chapter I, may be considered to fulfil this second step, without prejudice of the legal provisions on the ORSA.

3rd step. The Board of the Insurance Regulatory Authority should empower one or several senior supervisors to:

- ✓ develop an internal guidance addressed to supervisors regarding the methodology of supervision of the ORSA process and the ORSA policy, (refer to section *V.F. Supervisory review of the ORSA*).
- ✓ develop stressed scenarios recommended to insurers for their ORSA assessment according to their risk profile,
- ✓ adapt the IT system of the Insurance Regulatory Authority to allow for an orderly storage of the supervisory outcomes and the supporting documents derived from the supervision of the ORSA process and ORSA policy,

  It is recommended to schedule this task along several milestones, starting with simple IT solutions for the more urgent actions. Once gained experience the Insurance Regulatory Authority will be in a better position to identify the additional IT actions and the more relevant manner to implement such actions.
- ✓ integrate in the supervisory ladder those remedial actions that are relevant in light of the deficiencies that eventually be identified in the ORSA process.

4th step. Preparation of the legally binding regulations laying down the requirements to insurers regarding the ORSA process and the supervisory measures in case that process have material deficiencies[40]. Beema Samiti intends to issue in early 2023 a Directive reflecting the main concepts and components of the ORSA and the necessary supervisory empowerments for Beema Samiti and supervisory actions for the supervision of the ORSA according to a risk-based framework.

Usually these legally binding provisions are coupled with non-compulsory guidelines or toolkits that insurers may use as benchmarks with the proportionality principle.

[40] Directive (8) and Annexure 5.1 Own Risk Solvency Assessment of Risk Based Capital and Solvency Directive 2022 (2078).

5th step. The Board of the Insurance Regulatory Authority approves a supervisory handbook for the supervision of the ORSA process and the ORSA policy (refer to section *V.F. Supervisory review of the ORSA*).

6th step. The Board of the Insurance Regulatory Authority approves the supervisory procedure to apply when there are material deficiencies in the ORSA process or the ORSA policy of an insurer (refer to section *V.D. Supervisory ladder regarding the ORSA*).

7th step. Training of all levels of the supervisory staff of the Insurance Regulatory Authority regarding the new regulations, guidelines, toolkits, supervisory procedures and supervisory handbook regarding the supervision of the ORSA process and the ORSA policy.

8th step. The Board of the Insurance Regulatory Authority includes the supervision of the ORSA in its multi-year supervisory plan, and accordingly lists the concrete actions to carry out during the next year for the supervision of the ORSA process and the ORSA policy.

At an initial stage, it might make sense a complete supervisory review of the ORSA process and the ORSA policy of the supervised insurer.

In a second phase, it may be more effective and efficient to carry out supervisory actions limited to concrete areas of the ORSA. A list of those concrete areas might be (non-exhaustive list)[41]:

a) effective role of the Board regarding ORSA,

b) effective role of the *ORSA operational owner*,

c) appropriate reporting of ORSA, both internal within the insurer and external,

d) completeness and appropriateness of the ORSA policy,

e) adequate assurance of the quality of the ORSA,

f) methodology for the measurement of risks, including data quality and IT applications used,

g) risks regarding non-life insurance,

h) risk regarding life insurance,

i) investment risks,

j) asset-liability management and liquidity risks,

k) investment risks,

l) operational risks,

[41] Paragraph (71) of Annexure 5.1 Own Risk Solvency Assessment of Risk Based Capital and Solvency Directive 2022 (2078).

m) treatment of climate-change related risks in ORSA[42],

The Insurance Regulatory Authority should not use the outcomes of the ORSA process to set up increased capital requirements. Otherwise, the insurer would not have incentives for a better risk management and targeting up higher confidence levels. In fact, setting capital requirements with different confidence levels and time horizons would breach the level playing field.

Furthermore, supervision of ORSA should respect the freedom of insurers to organize its departments and business units provided the goals, deliverables and features of the ORSA process are achieved. Supervisors should facilitate the application of the proportionality principle. In other words, ORSA supervision should focus on the objectives of ORSA.

The ORSA process is neither designed nor operated for the Insurance Regulatory Authority. Neither the ORSA process nor the regular ORSA supervisory report are subject to the approval of Beema Samiti.

Notwithstanding, the supervisory review of the ORSA process is a key component of a risk-based supervision. Furthermore, the supervision of ORSA is much more than the review of the 'ORSA supervisory report'.

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[42] Directive (8) Risk Management - paragraph (3) of Risk Based Capital and Solvency Directive 2022 (2078) and Directive on Climate Related Risks Disclosures 2022 (2078).

V.B. Regulatory actions to implement the ORSA.

Beema Samiti intends to issue in early 2023 a Directive reflecting the main concepts and components of the ORSA, the necessary supervisory empowerments for Beema Samiti and the relevant regulations for the supervision of the ORSA according to a risk-based framework.

The legally binding regulations regarding the ORSA need to remain principle-based and focused on goals, deliverables and features, since by its own essence the ORSA only makes sense when tailored to the characteristics of each insurer. Developing detailed regulations lacks sense, regardless the general supervisory practice of issuing guidelines and toolkits to provide orientations or benchmarks that the insurers may use.

Insurers should have freedom to decide the most effective and efficient organization of its departments and business units to achieve the outcomes of the ORSA process and produce its deliverables. Nevertheless, the insurer should be able to explain by itself to the Insurance Regulatory Authority the rationale of the design of the ORSA process (i.e., leaving such explanation to a service provider is not appropriate).

Where the *proportionality principle* is applied to the ORSA, the insurer should be able to explain to the Insurance Regulatory Authority the manner in which the goals, the deliverables and the main features of the ORSA are retained and the manner in which the quality of the ORSA process is assured (i.e., leaving such explanation to a service provider is not appropriate).

Nowadays, the Nepalese regulations relevant for the ORSA process and the ORSA policy of insurers are:

- Paragraphs (9) and (10) of number 8 of Chapter 4 of Risk Based Capital and Solvency Directive 2022 (2078), and the corresponding provisions.
- Paragraphs (69) to (73) of Sub-section 5.1 of Annexure 5 of Risk Based Capital and Solvency Directive 2022 (2078).
- Risk Management Guidelines for Insurance Company, 2019 (2076).
- Directive on Climate Related Risks Disclosures, 2022.

This toolkit is not legally binding. Nevertheless, the Insurance Regulatory Authority expects that where the insurer does not apply any of the contents of this document, the insurer will be able to justify that its alternative approach preserves the goals, the deliverables and the main features of the ORSA process.

The main users of the ORSA process are the Board and the Senior Management of the insurer. The ORSA process is neither designed nor operated for the Insurance Regulatory Authority.

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V.C. Supervisors: Organizational adaptations for ORSA supervision.

An appropriate supervision of the ORSA process requires, on the one hand, an in-depth knowledge of the insurer (including sensitive areas) and a close and transparent dialogue between the insurer and its supervisors.

On the other hand, the supervision of the ORSA process needs a continuous follow-up of the usual operation of the ORSA process and the ORSA policy.

> Certainly, a supervisory review of the ORSA process in full may be relevant at an initial stage.
>
> Once the supervisory overview about the usual operation of the ORSA is understood, it seems more effective to focus the supervision successively on the weaknesses identified in the ORSA process.

Consequently, an appropriate supervision of the ORSA should be mainly based on on-site verifications, since only in that way it is possible to achieve the in-depth knowledge of the ORSA process and its usual operation.

> This does not preclude the possibility of carrying out some off-site supervisory activities based on specific requests of information. These requests of information may be more frequent as the supervisor has gained the relevant knowledge about the usual operation of the ORSA.

Having this in mind, Beema Samiti is considering to adopt the following organizational actions:

- One or several supervisors appointed to each one of the larger insurers of the Nepalese insurance market, identified according to their premiums, total assets, number of policies or any feature that may trigger a material impact in case of failure of the insurer.

  > The appointments are intended to be kept in the short and medium-term but after three to five years (or sooner where advisable) there will be regular changes in the appointments to enrich the supervision with different eyes and avoid familiarity in the supervision.

- The first supervisory activity regarding the ORSA will be to identify the state of art of the insurer according to the steps for the implementation of the ORSA as set out in section *II.B. Insurers: Steps to implement the ORSA*.

- At a second stage, the supervisors will allocate a supervisory risk scoring to the main areas of the ORSA process, according to the list contained in the previous section (*V.A. Supervisors: Steps to implement the supervision of ORSA)* and Guideline 5.3 of the Risk Management Guidelines for Insurance Company, 2019 (2076).

  > According to international practices and the referred Guideline 5.3, the scoring will rank from 0 (lowest level of supervisory risk) to 4 (extreme level of supervisory risk). The scoring will consider both the impact of the area and the current quality of the ORSA process in that area.

Where the insurer is at an earlier step of the implementation of the ORSA, the scoring might be not relevant, but rather the elaboration of a list of milestones of that implementation that have special supervisory interest.

□ The Insurance Regulatory Authority shall set up a fast track on-site supervisory procedure to carry out focused verifications on one or several of the areas of the ORSA process where material deficiencies have been identified or where the follow up of the implementation process by the insurer is considered of a key interest for the supervisor.

The fast track on-site supervisory procedures will intend to produce, within a deadline of four months since the initiation of the procedure, a supervisory decision on the outcomes the insurer should achieve.

Depending on the resources available the Insurance Regulatory Authority expects to carry out at least once fast track on-site supervisory procedure regarding ORSA every year for each of the larger Nepalese insurers.

□ Regarding the insurers without an appointed supervisor, the Insurance Regulatory Authority will consider whether to carry out ORSA-focused verifications or require to the insurer information on some areas of the ORSA or require an external assurance of the quality of the ORSA process (in full or partially) or a combination of those actions.

Where the insurer is at an earlier step of the implementation of the ORSA, the request of information may refer to the milestones of that implementation having special supervisory interest.

□ The Insurance Regulatory Authority shall set up an internal committee to:

- follow up the effective application within Beema Samiti of the governance adaptations described above and the progress in the steps listed in section *V.A. Supervisors: Steps to implement the supervision of the ORSA*,
- coordinate the supervisory findings about the ORSA process of the insurer with other areas of supervision for the same entity,
- propose to the Board of the Insurance Regulatory Authority specific actions regarding the ORSA, to be carried out as part of the working plan for the next twelve months,
- propose updates to the toolkit contained in this document or updates to the part of the supervisory handbook devoted to the ORSA.

Though these measures are referred to the internal organization and governance of the Insurance Regulatory Authority, the Authority expects that its public disclosure will encourage the preparedness of insurers to transparently and proactively cooperate during the supervisory actions envisaged.

Finally, since the supervision requires an in-depth knowledge and continuous supervisory monitoring, it is expected that the insurer at its own initiative and as soon as possible, will provide to the appointed supervisors any documentation of the Board activities regarding ORSA, of the activities of the *ORSA operational owner,* and also the main reporting delivered by the ORSA process.

The delivery of the information mentioned above should not be understood as application for approval of the activities of the insurer or as a request for supervisory allowance or opinion.

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V.D. Supervisory ladder regarding the ORSA.

The requirement for an ORSA process intends to provide good risk management incentives for a sound management of the entity's own objectives and to set up a supervision of the risk management system appropriate for the specific risk appetite of each insurer as reflected in its business model[43], strategic plans and policies.

Consequently, the ORSA process delivers neither a new legally binding capital requirement nor an increase of the *regulatory Risk-Based Capital requirement*. Otherwise, beyond disincentivising insurers to set up a sound and prudent business model, there would be regulatory capital requirements with different confidence levels and time horizons, thus breaching the level playing field.

Nevertheless, where the insurer has not implemented its ORSA process or it has material flaws, the Insurance Regulatory Authority must apply appropriate remedial actions. Such actions should be scaled in a '*supervisory ladder'* according to the factual findings.

The following points contain an illustrative '*supervisory ladder'* regarding the ORSA process. The supervisory measures listed may be applied in isolation or in combination.

Note that the supervisory actions listed below are based on **governance deficiencies of the ORSA process and ORSA policy**.

Note as well that the reasons for the application of each scale of the ladder are principle-based, according to the own essence of the ORSA.

- the softer supervisory measure is the issuance by the Insurance Regulatory Authority of recommendations, which may be addressed to an individual insurer or to the whole market.

  Among other situations, this supervisory action may be relevant where the Insurance Regulatory Authority wishes to introduce improvements in the ORSA that do not require urgent action or that are at an earlier stage of development.

  It is desirable that the insurer be compulsory required to disclose whether it applies the recommendations, and where this is not the case, to explain the reasons for not applying the recommendation of the Insurance Regulatory Authority.

- At a second degree of intensity, the Insurance Regulatory Authority may issue a compulsory request to the insurer for the achievement of certain outcomes or the production of certain deliverables within a given timeframe.

  Among other situations, this supervisory measure may be relevant where the ORSA process has deficiencies that jointly considered may impede to fully achieve any of the outcomes of the ORSA or to produce with adequate quality any of its essential deliverables. This option is relevant where those deficiencies do not put at risk in the short-term the protection of the interest of policy holders or jeopardize the financial and solvency condition of the insurer.

[43] Chapter I contains a glossary with the definition of '*business model*'.

□ Thirdly, the Insurance Regulatory Authority may prohibit the insurer certain operations or activities.

Among other situations, this supervisory action is relevant where the ORSA process is unable to deliver a robust and reliable assessment of risks with a material impact and/or there is evidence that those risks exceed the risk appetite and risk tolerances of the business model.

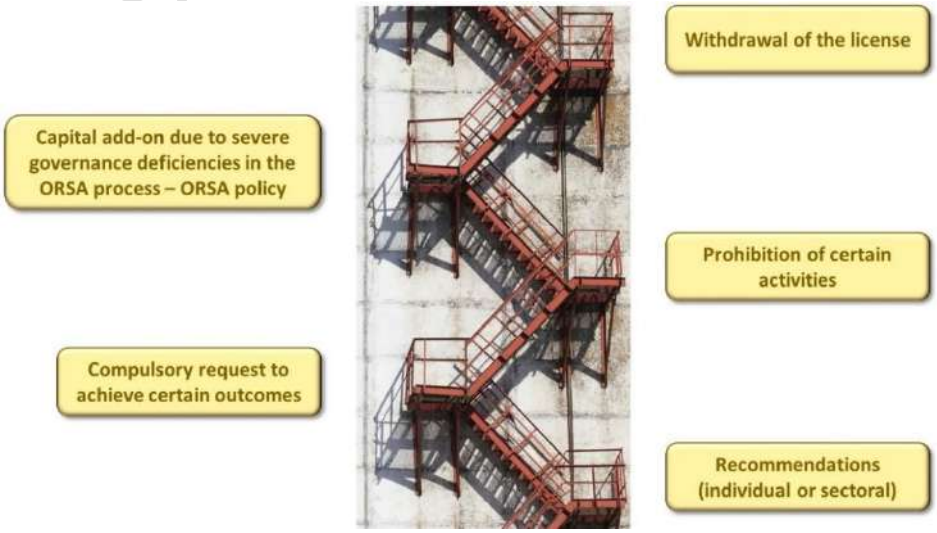
□ Furthermore, the Insurance Regulatory Authority may impose a capital add-on to the *regulatory Risk-Based Capital requirement*, where:

- there is evidence that the overall quality of the ORSA process does not allow for a reliable assessment of the financial and solvency condition of the insurer according to the risk appetite and risk tolerances defined in the business model, or
- where being reliable the ORSA process, their outcomes show that the actual risk-profile of the insurer is materially higher than the risk appetite and risk tolerances defined in the business model, and the insurer has failed in adopting the appropriate measures to recover the consistency among both, or
- where there are material deficiencies in critical components of the usual operation of process, such as the role of the Board, lack of the ORSA policy or major deficiencies in its content, lack of assurance of the ORSA process, deficient overall reporting (either internal or external).

In any case, Beema Samiti shall consider the application of any capital add-on as a transitional measure to last only meanwhile the insurer adopt the relevant remedial actions.

□ Finally, as an exceptional case the Insurance Regulatory Authority may withdraw the license in the extreme situation where the insurer lacks capacity to run the ORSA process and there is evidence that this puts at risk in the short-term the protection of the interests of policy holders.

The supervisory ladder as applicable to the ORSA process



V.E. ORSA supervisory report.

The supervision of the ORSA shall be based on the following sources:

- □ the policy for the ORSA,
- □ record of each ORSA,
- □ an internal report on each ORSA,
- □ the *ORSA supervisory report* that the insurer shall submit to the Insurance Regulatory Authority as soon as the Board approves the ORSA assessment (one month after the referred approval the latest).
- □ Any information that the Insurance Regulatory Authority may require from the insurer either as part of off-site supervisory verifications or in an on-site inspection. This information may include any section regarding the outsourced activities.

The insurer shall submit the *regular ORSA supervisory report* at least on annual basis and where the risk profile of the insurer has materially changed.

The *ORSA supervisory report* shall include in the most concise but complete manner a description of the following content:

A. Business model: Main features of the business model and description of the risk appetite and the relevant levels of risk tolerance, including the preferred '*economic available capital resources*'.

B. Information on the governance of the ORSA process

B.1. Entity to which the ORSA report refers to (or in the case of the ORSA at group level, the entities included in its scope, the entities excluded from its scope and the reasons for the exclusion).

B.2. Where the time horizon of the ORSA assessment is different from the time horizon of the *regulatory Risk-Based Capital requirement*, explanation of such difference.

B.3. Design of the ORSA process in the definition and monitoring phases and the internal reporting lines that intervene in the ORSA process, before and after the approval of the results by the Board.

B.4. Any changes made to the ORSA process or its governance, and to the ORSA policy, with respect to the last ORSA supervisory report.

B.5. Role and responsibilities assigned for ORSA purposes in the Board, the *ORSA operational owner*, the risk management function[44], the staff responsible for the compliance, the actuarial and the internal audit of the insurer, and in case of outsourced activities the staff of the insurer responsible of its monitoring.

[44] Guideline 5.9 of the Risk Management Guidelines for Insurance Company, 2019 (2076).

C. Detailed information on the ORSA.

C.1. Methods and assumptions underlying the assessment, in particular:

a. exposures to risks (risk map),

b. methods and assumptions used to calculate the '*economic capital target*' and the current and future overall '*economic available capital resources*'. Methods applied to allocate the overall '*economic capital target*' to the material risks.

c. risk mitigation techniques and management actions considered in the ORSA assessment,

d. quantitative analyses (sensitivity analysis, stress testing techniques) made on material risk factors, with the indication of the assumptions and results.

e. the results of the assessments carried out in terms of risk profile of the insurer.

C.2. Type and quality of the data used in the ORSA assessment of risks as well as for the description of the macroeconomic assumptions underlying the calculations.

C.3. Assessments carried out to verify whether there is a material deviation among the assumptions underlying the ORSA assessment and the assumptions underlying the *regulatory Risk-Based Capital requirement*, highlighting any material deviation.

C.4. Processes performed and assessments made by the insurer to verify ongoing compliance with the regulations on technical provisions, *regulatory Risk-Based Capital requirement* and regulatory '*available capital resources*'.

D. Conclusions and use of the ORSA

D.1. Impact of the assessments made on the solvency needs in a medium to longer term.

D.2. Detailed description of the conclusions drawn by the insurer on the basis of the assessments made, with the indication of the actions taken or planned.

D.3. Links between the results of the assessments made, the overall '*economic available capital resources*' needs and the risk appetite and risk tolerance thresholds set up in the business model.

D.4. Links between the results of the assessments made and the business model.

D.5. Estimate of the costs connected with obtaining any additional capital resources with respect to the current level in case of being necessary to cover the overall '*economic available capital resources*' needs.

D.7. Self-assessment of the ORSA, with indication of the areas of possible improvement both in terms of process and of actions regarding capital resources and organisation.

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V.F. Supervisory review of the ORSA.

Beema Samiti shall carry out the supervision of the ORSA of each insurer in order to achieve a sufficient confidence that the insurer, at its own initiative, has set up a business model, strategic plan, policies and decision-making processes that

- □ consider in a prudent manner all risks, and
- □ there are sufficient mechanisms to ascertain that the comprehensive and prudent consideration of the risks will continue in the future in consistency with the business model, and
- □ the financial and solvency condition of the insurer is preserved both currently and in the future under severe adverse scenarios.

(refer to section *I.B. Which are the goals of the ORSA process?* and section *I.H. Which are the main deliverables of an ORSA process?* for further detail)

Therefore, **the supervision of the ORSA is target-oriented**, and cannot be seen as a mere check-list compliance of requirements. Beema Samiti considers that to achieve the target referred above, the supervision needs to be appropriately intrusive and challenging the functioning of the Board, of the Senior Management of the insurer, and of the ORSA process.

Therefore, supervision of the ORSA is much more than the review of the 'ORSA supervisory report'.

The output of an insurer's ORSA should serve as an important tool in the supervisory review process by helping the supervisor to understand the risk exposure and solvency position of the insurer (IAIS ICP 16.16).

The supervisory review of the ORSA process and of the ORSA policy should be carried out according to the own essence of the ORSA, which means that the supervision should focus on the achievement of the outcomes, production of high-quality deliverables and, only where relevant, apply a compliance-based supervision.

The main beneficiaries and users of the ORSA process are the shareholders, the Board and the Senior Management of the insurer. The ORSA process is neither designed nor operated for the Insurance Regulatory Authority. Neither the ORSA process nor the regular ORSA supervisory report are subject to the approval of Beema Samiti.

The supervision of the ORSA needs to be closely coordinated with the supervision of the risk management system and risk management function of the insurer. The ORSA requirement focuses on goals, deliverables and features.

Neither the ORSA requirement nor the Insurance Regulatory Authority nor this tool impose a specific organizational structure to the insurer. **The insurer has complete freedom to organize its departments, business units, infrastructures provided the goals, deliverables and features of the ORSA process are achieved (beyond the rest of elements of the good governance of an insurer).**

Beema Samiti shall supervise ORSA allowing for the '*proportionality principle'.*

The '*proportionality principle'* means that while the goals, the deliverables and main features of the ORSA process remain everywhere, insurers should be allowed to achieve such goals, deliverables and features in a simpler manner depending on the risk profile of the insurer.

While Beema Samiti leaves to the insurer how to apply the *proportionality principle,* the insurer should be able to justify the manner such principle is applied and that its application does not jeopardize the goals, the deliverables and features of the ORSA process, having in mind the characteristics of the ORSA process.

Beema Samiti will supervise the compliance of the ORSA process with the relevant regulations and this toolkit and the IAIS ICP 16.

Where the insurer does not apply this toolkit, the insurer shall be able to explain that such departure does not jeopardize the goals, the deliverables and features of the ORSA process, having in mind the characteristics of the ORSA process.

Summarized sketch of the supervisory review of the ORSA process.

Regarding the ORSA policy, the supervision will focus on

- The ORSA policy is complete, clear and consistent with the business model and the strategic plan of the insurer (section *I.I. What is ORSA policy*),
- The ORSA policy is effectively implemented,

- The Board effectively owns the ORSA policy and plays an active role on its regular monitoring and update.

Regarding the governance of the ORSA, the supervision will verify how the insurer has materialized the content of the section *I.E. Who are responsible for ORSA* and of the section *II.C. Insurers: Governance adaptations to implement ORSA*. Furthermore, the supervision will assess the integration of the ORSA in the overall risk management of the insurer.

In case of outsourced elements of the ORSA, the supervision will also assess whether the insurer has set up an adequate oversight of the outsourcing. The insurer should at all times retain full control and knowledge of the outsourced activities.

Beema Samiti expects that before outsourcing any activity, the insurer shall:

- perform a detailed examination to ensure that the potential service provider has the ability, the capacity and any authorisation required by law to deliver the required functions or activities satisfactorily, taking into account the insurer's objectives and needs,
- ensure that the service provider has adopted all means to ensure that no explicit or potential conflict of interests may jeopardize the fulfilment of the needs of the insurer,
- require the outsourcing be entered into a written agreement between the insurer and the service provider, which clearly defines the respective rights and obligations of the insurer and the service provider,
- in case of outsourcing of critical activities ascertain that the general terms and conditions of the outsourcing agreement are clearly explained to the Board and authorized by it,
- verify that the outsourcing does not entail the breaching of any law in particular with regard to rules on data protection,
- verify that the service provider is subject to the same provisions on the safety and confidentiality of information relating to the insurer.

Regarding the usual operation of the ORSA, the supervision will verify how the insurer has materialized the content of Chapters III and IV of this toolkit.

Regarding the assurance of the quality of the ORSA and its effective implementation, the supervision will assess the outcomes and considerations in section *III.B. Use test of ORSA outcomes* and section *IV.F. Assurance of ORSA quality*.

Regarding the annual *ORSA supervisory report*, the supervision will assess its completeness, reliability and appropriateness to facilitate the supervisory review (see the previous section).

Once the above points are assessed, the supervisor will make a judgement on the degree of achievement of the outcomes of the ORSA as described in the section *I.B. Which are the goals of the ORSA process*.

Any supervisory review of the ORSA process should include a supervisory judgement of whether there are objective, verifiable and adequate reasons to apply any of the measures considered in the '*supervisory ladder*' regarding the ORSA (see the section *V.D. Supervisory ladder regarding the ORSA*).

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