

**Internal Model Validation MS14 - gap analysis Template**

	Evidence	Document reference	Audit Committee sign-off	SGAP	Rectification	Timetable
<b>Section 1: Validation Policy</b>						
<b>VAL 1.1 Maintenance of a validation policy</b>						
Managing Agents and Insurance companies shall establish, implement and maintain a validation policy which sets out the way in which they will validate the internal model, and explains why their approach is appropriate. Managing Agents and Insurance companies shall ensure that the validation policy specifies at least:						
<ul style="list-style-type: none"> <li>the purpose and the scope of the process;</li> <li>the processes and methods used to validate the internal model; (The validation policy must set out the validation tools that are used. The broad description of a validation tool is "any approach designed to gain comfort that the internal model is appropriate and reliable". It is up to each managing agent to decide which tools will be used. Many of the validation processes and tools described are mandatory under level 2 guidance, including stress and scenario testing, sensitivity testing, and back testing. It is strongly recommended that these tests should be applied to every major risk module of the standard SCR formula in order to validate the model including comparison against the standard SCR calculation. The use of the model for 'risk ranking' should also inform agents as to which risk areas should be tested as a priority.)</li> </ul>						
<ul style="list-style-type: none"> <li>for each part of the internal model, the frequency of regular validations and the circumstances which trigger additional validation;</li> <li>the persons who are responsible for each validation task;</li> <li>the procedure to be followed in the event that the validation process identifies problems with the reliability of the internal model and the decision-making process to address those concerns; (A key element of the validation process is the setting of pass/fail criteria for validation tests, since failures could indicate problems with the reliability of the internal model. The validation policy must set out how such cases are to be managed, including escalation as far as the Board, if appropriate. Validation failures may also lead to the recognition of model limitations and management add-ons to capital, the escalation process for which should also be covered by the validation policy.)</li> <li>an assessment by the managing agent of the quality of the validation process; and</li> <li>an assessment of the independence of the validation process. The validation policy must demonstrate that it sets out an independent validation process and must explain how independence is achieved.</li> </ul>						
<b>Section 2: Validation Governance</b>						
<b>VAL 2.1 Independence and objective challenge</b>						
Managing Agents and Insurance companies shall ensure that the validation process shall be independent from the development and operation of the internal model and subject to objective challenge. Managing Agents and Insurance companies shall ensure that:						
<ul style="list-style-type: none"> <li>the validation process and outcomes shall be subject to a level of objective review and challenge sufficient to justify the conclusions reached on the quality of the validation process; (The agent's definition of "independence" should be detailed and explained. One possible interpretation is that it is reviewed by individuals who were not involved in, and free from influence of, the model's design, development, parameterisation or operation, which could include external and internal staff. Independence does not require that only those with no connection to the model should be involved in the validation, only that all aspects of validation should incorporate an independent view. This certainly allows for the modelling team to conduct validation which can be used in the independent validation process, provided an adequate independent review element is incorporated. he independent review will require various skills and expertise and agents must be able to demonstrate that the process involves sufficient skills in all areas of the model to be validated. The managing agent should also explain the role of the internal audit function in the validation of the model where they are involved and show that it is not incompatible with the normal "third line of defence" role. Third party reviewers should have terms of reference making clear the nature of their role. Agents must also consider how independence is maintained over time. As an example, if model changes are implemented in response to an independent review, the review of the change by the same reviewer in future validation cycles may result in a decrease in independence over time. A proportionate approach to maintaining independence over time needs to be taken to ensure that it is manageable. Assessment of independence should explicitly cover as a minimum:</li> <li>in relation to the internal validation process, the responsibilities and reporting structure of the persons involved in the process; and</li> <li>in relation to any external validation process, the remuneration structure of the persons, including where applicable their employees or other persons acting on their behalf, who are involved in the process and any other mandates of these persons relating to the agent or Lloyd's Syndicate or Insurance company.</li> </ul> <p>The existence of objective challenge is crucial in maintaining an effective validation process. It is the responsibility of the risk management function to ensure that the tasks set out in the validation policy create and maintain independence, as noted above.</p>						
<ul style="list-style-type: none"> <li>the validation process shall incorporate governance to ensure that validation results are escalated where necessary; (Managing Agents and Insurance companies must be able to demonstrate the existence and use of a clear escalation path setting out how the results are escalated within the governance structure of the internal model. The escalation procedure followed for failed tests must be undertaken in compliance with the validation policy.)</li> </ul>						
<ul style="list-style-type: none"> <li>the escalation path for validation results shall also be independent of the development and operation of the internal model; and</li> <li>the risk management function has responsibility for testing and validating the internal model. (Article 44(5) of the framework directive sets out that the risk management function shall be tasked with testing and validating the internal model. Owing to the wide ranging scope of the internal model and of the validation of the internal model, it may be that the risk management function is not always in the best position to perform the tasks set out in the validation policy. It may be more practical in some cases for other parties to complete some of the tasks required in the validation process. The risk management function must remain responsible for co-ordinating the completion of the various tasks.)</li> </ul>						
<b>Section 3: Validation Process</b>						
<b>VAL 3.1 Frequency and scope</b>						
Managing Agents and Insurance companies shall ensure that the internal model validation shall be carried out on a regular cycle and cover all components of the internal model. Managing Agents and Insurance companies shall ensure:						
<ul style="list-style-type: none"> <li>the validation process shall apply to all parts of the internal model and shall cover all requirements set out in Articles 101, 112, 120 to 123, 125 and 126 of Directive 2009/138/EC; (The scope of validation is wide and covers the full scope of the internal model and not just the calculation kernel. For example any IT systems defined as being included within the internal model should by default be considered for inclusion within the scope of the validation. Managing Agents and Insurance companies will need to consider carefully where to draw the line between policies within the scope of the internal model and policies and processes that are linked to the internal model but outside the scope of the approval process. All areas within the scope of the model must be covered by validation.)</li> </ul>						
<ul style="list-style-type: none"> <li>they test the results and key assumptions of the internal model at least annually; and</li> <li>they test the results and key assumptions following events as identified in the model change policy.</li> </ul>						
<b>VAL 3.2 Compliance and confirmation</b>						
Managing Agents and Insurance companies shall conduct internal model validation in compliance with the validation policy. Managing Agents and Insurance companies shall ensure that:						
<ul style="list-style-type: none"> <li>the validation process shall be conducted and validation tools selected and applied in compliance with the validation policy; and</li> </ul>						
<ul style="list-style-type: none"> <li>the validation report shall be written and authorised in compliance with the validation policy, and shall support Managing Agents and Insurance companies in making the following confirmations:</li> </ul>						

o the validation has been conducted in compliance with the validation policy;						
o the validation process has been conducted with sufficient independence;						
o the internal model is reliable and its results appropriate; and						
o all material components and risks have been tested.						
<b>VAL 3.3 Validation results</b>						
The validation process shall support conclusions about the appropriateness and reliability of the internal model. Managing Agents and Insurance companies shall ensure that the:						
• validation tests shall result in conclusions about the appropriateness of the area being validated; (Validation is considered to be a critical part of demonstrating that the internal model is suitable for the expected uses, and in particular, setting capital for regulatory purposes. The validation process must lead to results which enable the Board to determine the reliability and appropriateness of the model for each use and provide appropriate escalation of any findings.)						
• tests giving results outside pre-defined requirements shall be addressed in accordance with the validation policy and shall be subject to escalation and further validation, if appropriate; and						
• the validation process shall cover all material limitations in the internal model and their impact on the appropriateness and reliability of the model.						
<b>Section 4: Validation Tools</b>						
<b>VAL 4.1 Basis of validation</b>						
Actuarial and statistical methods shall be tested on current information and practice and a detailed understanding of the model. The validation of the actuarial and statistical methods referred to in Article 124 of Directive 2009/138/EC shall be based on:						
• current information, including actuarial progress and the generally accepted market practice; and						
• a detailed understanding of the theory and assumptions underlying the methods.						
<b>VAL 4.2 Experience</b>						
Managing Agents and Insurance companies shall ensure that appropriate testing of the internal model against experience is undertaken. Managing Agents and Insurance companies shall:						
• assess the effect on the results of the internal model of changes in the key assumptions underlying the model; and						
• apply the tests to aggregated results and appropriate single elements of the results;						
• identify the reason for any significant divergence between assumptions and results; and						
• ensure actuarial and statistical methods are tested against current data and market practice based on a detailed understanding of the model.						