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**Consultation Paper
On the Proposal for
Guidelines
On
Pre-application for Internal Models**

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Responding to this paper

EIOPA welcomes comments on the Consultation Paper on the Proposal for Guidelines on Pre-application for Internal Models.

The consultation package includes:

- The Consultation Paper on the Proposal for Guidelines on Pre-application for Internal Models; and
- Template for comments.

Please send your comments to EIOPA in the provided Template for Comments, by email CP-13-011@eiopa.europa.eu, by 19 June 2013.

Contributions not provided in the template for comments, or sent to a different email address, or after the deadline will not be processed.

EIOPA invites comments on any aspect of this paper. Comments are most helpful if they:

- contain a clear rationale; and
- describe any alternatives EIOPA should consider.

Publication of responses

All contributions received will be published following the close of the consultation, unless you request otherwise in the respective field in the template for comments. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure. A confidential response may be requested from us in accordance with EIOPA's rules on public access to documents¹. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by EIOPA's Board of Appeal and the European Ombudsman.

Data protection

Information on data protection can be found at www.eiopa.europa.eu under the heading 'Legal notice'.

¹ [https://eiopa.europa.eu/fileadmin/tx_dam/files/aboutceiops/Public-Access-\(EIOPA-MB-11-051\).pdf](https://eiopa.europa.eu/fileadmin/tx_dam/files/aboutceiops/Public-Access-(EIOPA-MB-11-051).pdf)

Consultation Paper Overview & Next Steps

EIOPA carries out consultations in the case of Guidelines and Recommendations in accordance to Article 16 (2) of the EIOPA Regulation.

This Consultation Paper is being issued as part of the preparation for the implementation of Solvency II by national competent authorities and insurance and reinsurance undertakings and groups.

This Consultation Paper presents the draft Guidelines.

The analysis of the expected impact from the proposed policy is covered under the Annex I - Impact Assessment.

Next steps

EIOPA will consider the feedback received, and expects to publish a final report on the consultation subsequently.

1. Guidelines

Introduction

- 1.1. According to Article 16 of Regulation (EU) 1904/2010 of 24 November 2010 (hereafter, EIOPA Regulation)² EIOPA is issuing Guidelines addressed to national competent authorities on how to proceed in the preparatory phase leading up to the applications of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II)³.
- 1.2. The present Guidelines apply to the pre-application process for internal models, where national competent authorities are expected to form a view on how prepared an insurance or reinsurance undertaking is to submit an application for the use of an internal model for the calculation of the Solvency Capital Requirement under Solvency II and to meet the internal models requirements set out in the Directive, in particular in Articles 112, 113, 115, 116, and 120 to 126.
- 1.3. In the absence of a political agreement on Omnibus II, European national competent authorities may be forced to develop national solutions in order to ensure sound risk sensitive supervision. Instead of reaching consistent and convergent supervision in the EU, different national solutions may emerge to the detriment of a good functioning internal market.
- 1.4. It is of key importance that there will be a consistent and convergent approach with respect to the preparation of Solvency II. These Guidelines should be seen as preparatory work for Solvency II by fostering preparation with respect to key areas of Solvency II in order to ensure proper management of undertakings and to ensure that supervisors have sufficient information at hand. These areas are the system of governance, including risk management system and a forward looking assessment of the undertaking's own risks (based on the Own Risk and Solvency Assessment principles), pre-application for internal models, and submission of information to national competent authorities.
- 1.5. Early preparation is key in order to ensure that when Solvency II is fully applicable undertakings and national competent authorities will be well prepared and able to apply the new system. For this, national competent authorities are expected to engage with undertakings in a close dialogue.

² OJ L 331, 15.12.2010, p. 48-83

³ OJ L 335, 17.12.2009, p. 1-155

- 1.6. As part of the preparation for the implementation of Solvency II, national competent authorities should put in place from 1st of January 2014 the Guidelines as set out in this document so that insurance and reinsurance undertakings take the appropriate steps.
- 1.7. National competent authorities should send to EIOPA, a progress report on the application of these Guidelines by the end of February following each relevant year, the first being by 28 February 2015 based on the period 1 January 2014 to 31 December 2014.
- 1.8. The EIOPA Guidelines on Pre-application for Internal Models aim to provide guidance on what national competent authorities and an insurance or reinsurance undertaking engaged in a pre-application process should consider in order that national competent authorities are able to form a view on how prepared this insurance or reinsurance undertaking is to submit an application for the use under Solvency II of an internal model for the calculation of the Solvency Capital Requirement. Under Solvency II an insurance or reinsurance undertaking applying for the use of an internal model to calculate the Solvency Capital Requirement will have to comply with the Directive requirements as further specified in the Delegated Acts when issued.
- 1.9. The Guidelines aim to increase convergence of supervisory practices during the pre-application process. They should also in turn help an insurance or reinsurance undertaking to develop its internal model framework and thereby prepare to submit an application to use an internal model under Solvency II. They also extend the pre-application process for an undertaking aiming at submitting an application for decision on the use of an internal model from the first day on which Solvency II is applicable.
- 1.10. In the case of pre-application process for groups, there should be appropriate level of communication between national competent authorities within the colleges, in particular between the national competent authorities involved.
- 1.11. Communication between national competent authorities and the insurance or reinsurance undertaking should continue throughout the pre-application and the future assessment of the application the undertaking may submit under Solvency II, and after the internal model is approved through the supervisory review process.
- 1.12. More provisions on the pre-application process are contained in CEIOPS' Level 3 Guidance on Pre-Application process for internal models (former CEIOPS Consultation Paper 80)⁴.

⁴ https://eiopa.europa.eu/fileadmin/tx_dam/files/consultations/consultationpapers/CP80/CEIOPS-DOC-76-10-Guidance-pre-application-internal-models.pdf

- 1.13. National competent authorities are expected to ensure that these Guidelines are applied in a manner which is proportionate to the nature, scale and complexity inherent in the risks and business of the insurance and reinsurance undertaking. The Guidelines already reflect the application of the principles of proportionality by having the principle embedded and also by introducing specific measures in certain areas.
- 1.14. All the Guidelines apply, unless otherwise explicitly stated, to the pre-application process for:
- An internal model, full or partial, that would be submitted for decision to use for the calculation of the Solvency Capital Requirement of an insurance or reinsurance undertaking under Solvency II.
 - An internal model for a group, full or partial, as defined below, which would be submitted for this decision.
- 1.15. For the purpose of the Guidelines of Section II the following definitions apply:
- “*Internal model(s) for a group (or for groups)*” should be understood as both an internal model that would be used under Solvency II for the calculation only of the consolidated group Solvency Capital Requirement (under Article 230 of Solvency II) and an internal model that would be used under Solvency II for the calculation of the consolidated group Solvency Capital Requirement as well as the Solvency Capital Requirement of at least one related undertaking included in the scope of this internal model for the calculation of the consolidated group Solvency Capital Requirement (group internal model under Article 231 of Solvency II).
 - “*The national competent authorities concerned*” should be understood as the national competent authorities of all the Member States in which the head offices of each related insurance and reinsurance undertakings included in the scope of a group internal model as referred to above (Article 231 of Solvency II) and for which the Solvency Capital Requirement would be calculated by the group internal model, are situated.
 - “*The national competent authorities involved*” should be understood as the national competent authorities of all the Member States in which the head offices of related undertakings included in the scope of an internal model for a group (both under Article 230 and Article 231 of Solvency II) are situated.

The *national competent authorities concerned* in the case of a group internal model under Article 231 of Solvency II are part of these *national competent authorities involved*.

- “*Expert judgment*” should be understood as the expertise of individual persons or committees with relevant knowledge, experience and understanding of the risks inherent in the insurance or reinsurance business.
- The concept of “*richness of the probability distribution forecast*” is determined mainly in two dimensions: the undertaking’s extent of knowledge about the risk profile as reflected in the set of events underlying the probability distribution forecast and the capability of the calculation method chosen to transform this information into a distribution of monetary values that relate to changes in basic own funds. The concept of richness should not be reduced to the granularity of the representation of the probability distribution forecast because even a forecast in form of a continuous function might be of low richness.
- The “*reference risk measure*” should be understood as the Value-at-Risk of the basic own funds subject to a confidence level of 99,5% over a one-year period as set out in Article 101(3) of Solvency II.
- “*Analytical closed formulae*” should be understood as a direct mathematical formula that links the risk measure chosen by the undertaking to the reference one as defined above.
- “*t=0*” should be understood as the date of which the Solvency Capital Requirement computation will be made by the undertaking according to its internal model.
- “*t=1*” should be understood as one year after the date of which the Solvency Capital Requirement computation will be made by the undertaking according to its internal model.
- A quantitative or qualitative aspect of an internal model should be considered as “*material*” when a change or an error of this aspect could generate an impact on the outputs of this internal model, which could influence the decision-making or the judgement of the users of that information, including the national competent authorities.

1.16. These Guidelines shall apply from 1 January 2014.

Section I: General Provisions for Guidelines

Guideline 1 - General provisions for Guidelines

- 1.17. National competent authorities should take the appropriate steps in order to put in place from 1 January 2014 the present Guidelines on Pre-application for Internal Models.
- 1.18. During the pre-application process, national competent authorities should take the appropriate steps in order to form a view on how prepared an insurance or reinsurance undertaking engaged in a pre-application process is to submit an application for the use of an internal model for the calculation of the Solvency Capital Requirement under Solvency II and to meet the internal models requirements set out in Directive 2009/138/EC, in particular in Articles 112, 113, 115, 116 and 120 to 126.
- 1.19. During the pre-application process, national competent authorities should form a view on how the insurance or reinsurance undertaking engaged in the pre-application process takes the appropriate steps to:
 - (a) build its internal model framework in a way that enables it to be prepared to use the internal model both, for risk management and decision-making purposes, and for the calculation of the Solvency Capital Requirement; and
 - (b) prepare for the eventuality that its internal model may not be approved and set up processes to calculate the standard formula Solvency Capital Requirement as well as to consider the capital planning implications.

Guideline 2 – Progress report to EIOPA

- 1.20. National competent authorities should send to EIOPA, a progress report on the application of these Guidelines by the end of February following each relevant year, the first being by 28 February 2015 based on the period 1 January 2014 to 31 December 2014.

Section II: Pre-application for internal models

Chapter 1: General Guidelines

Guideline 3 - National competent authorities' review

- 1.21. During the pre-application process, when defining and considering the extent of the reviews they carry out for the purposes of this process, national competent authorities should take into account at least:
- (a) the specificities of the undertaking engaged in the pre-application process, and of its internal model;
 - (b) the relation between the aspect of the internal model being reviewed and other parts of the internal model; and
 - (c) the proportionality principle as set out in Article 29(3) of Solvency II bearing in mind that proportionality principle should not, however, be understood as waving or lowering any of the internal models requirements set out in Solvency II. In particular, national competent authorities should take into account the proportionality principle by considering:
 - (i) the nature, scale and complexity of the risks to which an insurance or reinsurance undertaking is exposed; and
 - (ii) the design, scope and qualitative aspects of the internal model of this undertaking.
- 1.22. National competent authorities should provide feedback to the undertaking on the reviews they carry out on the internal model for the purposes of pre-application.

Guideline 4 - Changes to the internal model during pre-application

- 1.23. National competent authorities should monitor and, where appropriate, review changes that the insurance or reinsurance undertaking will make to its internal model after some reviews have been completed during the pre-application process.
- 1.24. To this end, national competent authorities should ensure that the insurance or reinsurance undertaking notifies to them any changes to the internal model or plan of changes the undertaking considers relevant.
- 1.25. National competent authorities should, in relation to the changes the insurance or reinsurance undertaking makes to its internal model during the pre-application process, form a view on, at least:

- (a) the governance the undertaking puts in place in relation to these changes, including the internal approval of changes, the internal communication, the documentation and the validation of the changes; and
- (b) the classification of changes the undertaking establishes.

Chapter 2: Model changes

Guideline 5 - Scope of the policy for model changes

- 1.26. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking, when establishing the policy for changing the model, covers all relevant sources of change that would impact its Solvency Capital Requirement, and at least the changes:
- (a) in the system of governance of the undertaking;
 - (b) in the undertaking's compliance with the requirements to use the internal model;
 - (c) in the appropriateness of the technical specifications of the undertaking's internal model; and
 - (d) to the risk profile of the undertaking.

Guideline 6 - Definition of a major change

- 1.27. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking develops and uses a number of key qualitative or quantitative indicators to define a major change, and whether the insurance or reinsurance undertaking sets out an objective approach for classifying changes as major.
- 1.28. Whilst the quantitative impact of a model change on the Solvency Capital Requirement or on individual components of the Solvency Capital Requirement may be one of the indicators an insurance or reinsurance undertaking plans to use to identify major changes, national competent authorities should form a view on how the undertaking ensures that other qualitative and quantitative indicators are also used.
- 1.29. National competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the indicators it develops take into account the specificities of the undertaking itself and of its internal model.

Guideline 7 - Combination of several changes

- 1.30. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking plans to evaluate the effect of each change in isolation and the effect of all changes combined on the Solvency Capital Requirement or its individual components.
- 1.31. National competent authorities should form a view on how the insurance or reinsurance undertaking plans to evaluate such effects in order to prevent individual impacts that offset one another and the combined impact of multiple changes from being overlooked.

Guideline 8 – Group internal model change policy (under Article 231 of Solvency II)

- 1.32. Through the pre-application process, in the case of a group internal model, the national competent authorities involved should form a view on how the insurance or reinsurance undertaking develops one model change policy.
- 1.33. The national competent authorities involved should form a view on how the insurance or reinsurance undertaking ensures that the model change policy includes a specification of major and minor changes with regard to the group, as well as each of the related undertakings which would use the group internal model to calculate their individual Solvency Capital Requirement.
- 1.34. National competent authorities should form a view on whether the insurance or reinsurance undertaking classifies a change that is major at an individual undertaking to be a major change within the policy.

Chapter 3: Use test

Guideline 9 – Assessment of compliance

- 1.35. Through the pre-application process national competent authorities should form a view on how prepared each insurance or reinsurance undertaking is to comply with the use test as set out in Article 120 of Solvency II, and in particular in relation to, at least:
 - (a) the different uses of the model;
 - (b) how the model fits to the business;
 - (c) how the model is understood;
 - (d) how the model supports the decision-making; and
 - (e) how the model is integrated with the risk management system.

1.36. National competent authorities should form this view taking into account that no complete and detailed list of specific uses should be prescribed to the insurance or reinsurance undertaking.

Guideline 10 – Incentive to improve the quality of the internal model

1.37. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking will ensure that the internal model is used in its risk-management system and decision-making processes in a way that creates incentives to improve the quality of the internal model itself.

Guideline 11 – Fit to the business

1.38. Through the pre-application process national competent authorities should, in forming a view on how the insurance or reinsurance undertaking ensures that the level of detail to which the internal model fits its business is appropriate, consider the following factors:

- (a) whether the uses of the internal model by the insurance or reinsurance undertaking in its decision-making process covers strategic decisions, more detailed key business decisions and any other relevant decisions;
- (b) the insurance or reinsurance undertaking's risk management system and how granular this is;
- (c) the granularity required for the decision-making process of the insurance or reinsurance undertaking;
- (d) the structure of decision-making fora in the insurance or reinsurance undertaking;
- (e) the internal record by the insurance or reinsurance undertaking related to the design of the output from the internal model; or
- (f) other relevant ones.

Guideline 12 – Understanding of the internal model

1.39. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures understanding of the internal model by the administrative, management or supervisory body and staff using the internal model for decision-making; including providing training, seminars or workshops on the internal model.

1.40. With the aim of forming a view on their understanding of the internal model national competent authorities should consider using interviews

of persons from the administrative, management or supervisory body and persons who effectively run the insurance or reinsurance undertaking.

- 1.41. National competent authorities should also consider reviewing the documentation of the minutes of the board meetings or appropriate decision-making bodies to form a view on how ready is the insurance or reinsurance undertaking to comply with the use test requirements.

Guideline 13 – Support of decision-making

- 1.42. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the internal model will be used both in decision-making and to calculate the Solvency Capital Requirement.
- 1.43. When the insurance or reinsurance undertaking uses additional tools to the internal model as part of the decision-making process, national competent authorities should form a view on how the insurance or reinsurance undertaking identifies inconsistencies and considers them as a potential basis to improve the quality of the internal model.

Guideline 14 – Support of decision-making

- 1.44. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the internal model gives prospective support to decision-making and provides retrospective verification of decision-making.

Guideline 15 – Support of decision-making

- 1.45. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking documents the use of the output of the internal model in decision-making and how the output is aligned with the decision.
- 1.46. National competent authorities should form a view on how the insurance or reinsurance undertaking captures as well in the documentation where the output of the internal model is not aligned with the decision.
- 1.47. National competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the internal stakeholders of the undertaking, in particular its administrative, management and supervisory bodies, receive regular internal model results that relate to the relevant business decisions.

Guideline 16 – Support of decision-making

- 1.48. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the internal model is at a minimum able to measure the

economic capital and to identify the impact on the risk profile of potential decisions for which the model is used.

- 1.49. National competent authorities should form a view on how the insurance or reinsurance undertaking also understands the effect such decisions will have on the Solvency Capital Requirement.

Guideline 17 – Frequency of calculation

- 1.50. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking develops a process to monitor its risk profile and how a significant change of the risk profile will trigger a recalculation of the Solvency Capital Requirement.

Guideline 18 – Group specificities

- 1.51. Through the pre-application process, in case of a group internal model, the national competent authorities involved should form a view on how the participating undertaking and the related undertakings which would use the group internal model to calculate their individual Solvency Capital Requirement cooperate to ensure that the design of the internal model is aligned with their business.
- 1.52. The national competent authorities involved should form a view on the evidence provided by the participating undertaking and related undertakings that, at least:
- (a) their individual Solvency Capital Requirement would be calculated with the frequency required by Article 102 of Solvency II and whenever it is needed in the decision-making process;
 - (b) they can propose changes to the group internal model, especially for components that are material to them or following a change in their risk profile or changes in local conditions; and
 - (c) the related undertakings possess the adequate understanding of the internal model for the parts of the internal model which cover the risks of that undertaking.
- 1.53. The national competent authorities involved should form a view on how insurance or reinsurance undertakings that would use a group internal model to calculate their Solvency Capital Requirement, ensure that the design of the internal model is aligned with their business and their risk-management system, including the production of outputs, at group level and at related undertaking level, that are granular enough to allow the group internal model to play a sufficient role in their decision-making processes.

Chapter 4: Assumption setting and expert judgement

Guideline 19 – Assumptions setting

- 1.54. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking sets assumptions and uses expert judgment in particular, taking into account the materiality of the impact of the use of assumptions.
- 1.55. National competent authorities should form a view on how the undertaking assesses materiality taking into account both quantitative and qualitative indicators and taking into consideration extreme losses conditions.
- 1.56. National competent authorities should form a view on how the insurance or reinsurance undertaking gives attention to the interrelation between the indicators considered as indicators that have limited impact in isolation may have a material impact in combination.

Guideline 20 – Governance

- 1.57. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that all assumption setting, and the use of expert judgement in particular, follows a validated and documented process.
- 1.58. National competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the assumptions are derived and used consistently over time and across the insurance or reinsurance undertaking and that they are fit for their intended use.
- 1.59. National competent authorities should form a view on how the insurance or reinsurance undertaking signs off the assumptions at levels of sufficient seniority according to their materiality, up to and including the administrative, management or supervisory body.

Guideline 21 - Communication and uncertainty

- 1.60. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the processes around assumptions, and in particular around the use of expert judgement in choosing those assumptions, specifically attempt to mitigate the risk of misunderstanding or miscommunication between all different roles related to such assumptions.
- 1.61. National competent authorities should form a view on how the insurance or reinsurance undertaking establishes a formal and documented feedback process between the providers and the users of material expert judgement and of the resulting assumptions.
- 1.62. National competent authorities should form a view on how the insurance or reinsurance undertaking makes transparent the

uncertainty of the assumptions as well as the associated variation in final results.

Guideline 22 - Documentation

- 1.63. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking documents the assumption setting process, and in particular the use of expert judgement, in such a manner that the process is transparent.
- 1.64. National competent authorities should form a view on how the insurance or reinsurance undertaking includes in the documentation the resulting assumptions and their materiality, the experts involved, the intended use and the start and revision date.
- 1.65. National competent authorities should form a view on how the insurance or reinsurance undertaking includes the rationale for the opinion, including the information basis used, with the level of detail necessary to make transparent both the assumptions and the process and decision-making criteria used for the selection of the assumptions and disregarding other alternatives.
- 1.66. National competent authorities should form a view on how the insurance or reinsurance undertaking makes sure that users of material assumptions receive clear and comprehensive written information about those assumptions.

Guideline 23 - Validation

- 1.67. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the process for choosing assumptions and using expert judgement is being validated.
- 1.68. National competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the process and the tools for validating the assumptions and in particular the use of expert judgement are being documented.
- 1.69. National competent authorities should form a view on how the insurance or reinsurance undertaking tracks the changes of material assumptions in response to new information and analyses and explains those changes as well as deviations of realizations from material assumptions.
- 1.70. National competent authorities should form a view on how the insurance or reinsurance undertaking, where feasible and appropriate, uses other validation tools such as stress testing or sensitivity testing.
- 1.71. National competent authorities should form a view on how the insurance or reinsurance undertaking reviews the assumptions chosen, relying on independent internal or external expertise.

- 1.72. National competent authorities should form a view on how the insurance or reinsurance undertaking monitors the circumstances under which the assumptions would be considered false.

Chapter 5: Methodological consistency

Guideline 24 - Consistency check points

- 1.73. Through the pre-application process, national competent authorities should form a view on how the insurance or reinsurance undertaking will ensure consistency between the methods used to calculate the probability distribution forecast and the methods that will be used for the valuation of assets and liabilities for solvency purposes.
- 1.74. In particular national competent authorities should form a view on how the insurance or reinsurance undertaking will check consistency at the following steps of the calculation of the probability distribution forecast, in case that they are relevant to the model part under consideration:
- (a) the consistency of the transition from the valuation of assets and liabilities for solvency purposes to the internal model for the purpose of Solvency Capital Requirements calculations;
 - (b) the consistency of the initial valuation of assets and liabilities in the internal model at the valuation date with the original valuation of assets and liabilities for solvency purposes;
 - (c) the consistency of the projection of risk factors and their impact on the forecasted monetary values with the best estimate assumptions of those risk factors used for the valuation of assets and liabilities; and
 - (d) the consistency of the re-valuation of assets and liabilities at the end of the time horizon with the initial valuation.

Guideline 25 - Aspects of consistency

- 1.75. Through the pre-application process, national competent authorities should form a view on how the insurance or reinsurance undertaking, when assessing consistency, will take at least the following aspects into account:
- (a) the consistency of the calculation methods applied in the valuation of assets and liabilities, and in the calculation of the probability distribution forecast;

- (b) the consistency of data and parameters that are used as input for the respective calculations; and
- (c) the consistency of the assumptions underlying the respective calculations, in particular assumptions on contractual options and financial guarantees, on future management actions and on expected future discretionary benefits.

Guideline 26 - Consistency assessment

- 1.76. Through the pre-application process, national competent authorities should form a view on how the insurance or reinsurance undertaking will conduct regular consistency assessments as part of its internal model validation process as set out in Article 124 of Solvency II.
- 1.77. National competent authorities should form a view on how the insurance or reinsurance undertaking will conduct the consistency assessment on a quantitative basis whenever possible and proportionate.
- 1.78. National competent authorities should form a view on how the insurance or reinsurance undertaking, in its consistency assessment, will identify and document any deviation between the calculation of the probability distribution forecast and the valuation of assets and liabilities.
- 1.79. National competent authorities should form a view on how the insurance or reinsurance undertaking will assess the impact of the deviations, both in isolation and in combination.
- 1.80. National competent authorities should also form a view on how the insurance or reinsurance undertaking will justify that the deviations will not result in an inconsistency between the calculation of the probability distribution forecast and the valuation of assets and liabilities.

Chapter 6: Probability distribution forecast

Guideline 27 - Knowledge of the risk profile

- 1.81. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the set of events of the probability distribution forecast underlying the internal model is exhaustive.
- 1.82. National competent authorities should form a view on the processes that are put in place by the insurance or reinsurance undertaking in order to maintain sufficient and current knowledge of its risk profile.
- 1.83. In particular, national competent authorities should form a view on how the insurance or reinsurance undertaking aims to maintain the knowledge of risk drivers and other factors which explain the

behaviour of the variable underlying the probability distribution forecast, so that the probability distribution forecast can reflect all relevant characteristics of its risk profile.

Guideline 28 - Probability distribution forecast richness

- 1.84. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking assesses the appropriateness of the actuarial and statistical techniques used to calculate the probability distribution forecast, and on how it considers the capability of the techniques to process the knowledge of the risk profile as an important criterion.
- 1.85. National competent authorities should form a view on how the insurance or reinsurance undertaking chooses techniques that generate a probability distribution forecast that is rich enough to capture all relevant characteristics of its risk profile and to support decision-making.
- 1.86. National competent authorities should also form a view on how the insurance or reinsurance undertaking as part of this methodological assessment considers the reliability of adverse quantiles estimated based on the probability distribution forecast.
- 1.87. National competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the effort to generate rich probability distribution forecast does not impair the reliability of the estimate of adverse quantiles.

Guideline 29 – Assessment of richness of the probability distribution forecast

- 1.88. Through the pre-application process, to form a view according to Guideline 28, and with a view to ensure a harmonised approach for the pre-application and model changes, national competent authorities should take into account at least:
 - (a) whether the probability distribution forecast reflects the risk profile of the undertaking;
 - (b) as a necessary but not sufficient condition, the current progress in actuarial science and the generally accepted market practice;
 - (c) with respect to the level of probability distribution forecast richness, any measures that the insurance or reinsurance undertaking puts in place to ensure compliance with internal model test and each of the standards set out in Articles 120 to 126 of Solvency II;

- (d) for a particular risk under consideration, the way in which the techniques chosen and the probability distribution forecast obtained by the insurance or reinsurance undertaking interact with other risks in the scope of the internal model as regards the level of richness of the probability distribution forecast; and
- (e) the nature, scale and complexity of the risk under consideration.

Guideline 30 – Probability distribution forecast enrichment

- 1.89. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking takes care not to introduce into the probability distribution forecast unfounded richness which does not reflect the original knowledge of its risk profile [cf. Guideline 27].
- 1.90. National competent authorities should form a view on how the methodology followed by the insurance or reinsurance undertaking to enrich the probability distribution forecast complies with the Statistical Quality Standards regarding methods, assumptions and data. Where these techniques involve the use of expert judgement the relevant Guidelines on assumptions setting and expert judgment should apply.

Chapter 7: Calibration - approximations

Guideline 31 - Knowledge of approximations

- 1.91. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking demonstrates a detailed understanding of the approximations that it will make.
- 1.92. In particular, national competent authorities should form a view on how the undertaking at least:
 - (a) considers the error that will be introduced by the approximations in the Solvency Capital Requirement;
 - (b) demonstrates that the approximations it will make will not result in a Solvency Capital Requirement that will be materially underestimated compared to the result of the calculation with the reference risk measure, in order to ensure that policyholders are provided with a level of protection equivalent to that provided in Article 101(3) of Solvency II; and
 - (c) challenges and justifies the stability of the output of approximations over time, and under extreme loss conditions, according to its risk profile.

- 1.93. National competent authorities should make clear to the insurance or reinsurance undertaking that they will not allow material uncertainty around approximations this undertaking will make to recalibrate the Solvency Capital Requirement if this uncertainty leads to an underestimation of the Solvency Capital Requirement.

Guideline 32 - Reference risk measure as an intermediate result

- 1.94. When the insurance or reinsurance undertaking can derive the reference risk measure directly from the result of the economic capital calculation process, through the pre-application process national competent authorities should form a view on how the undertaking will be able to demonstrate that this result will reflect appropriately its risk profile over the next year.

Guideline 33 - Use of another underlying variable

- 1.95. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking, if it will use for the calculation of the Solvency Capital Requirement the variation of an underlying variable different from the basic own funds, demonstrates:
- (a) either that the difference between the basic own funds and the underlying variable will not be material at $t=0$ and in any situation until $t=1$; or
 - (b) that there can be no significant variation of this material difference over the next year, even under extreme losses conditions, according to the undertaking risk profile.
- 1.96. National competent authorities should form a view on how the insurance or reinsurance undertaking, if it will use the variation of an underlying variable different from the basic own funds to derive the value of basic own funds, demonstrates that:
- (a) it will be able to reconcile the difference between the basic own funds and the underlying variable at $t=0$; and
 - (b) it will understand the difference between the basic own funds and the underlying variable in any situation until $t=1$.
- 1.97. National competent authorities should form a view on how the balance sheet for solvency purposes that will be run by the insurance or reinsurance undertaking will enable such undertaking to determine the amount of eligible own funds available to cover the Solvency Capital Requirement, irrespectively of the calculation method used to calculate this Solvency Capital Requirement.

Guideline 34 - Use of analytical closed formulae

1.98. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking, where it will use analytical closed formulae to recalibrate its capital requirement from the internal risk measure to the reference one, demonstrates that the assumptions underlying the formulae will be realistic and will also be valid under extreme losses conditions, according to the insurance or reinsurance undertaking's risk profile.

Guideline 35 - Management actions

1.99. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking, where it chooses in its internal model a time horizon longer than one year, will take into account management actions in the context of the Solvency Capital Requirement calculation, and will ensure that such management actions will occur and will have effects on the balance sheet for solvency purposes between $t=0$ and $t=1$, and will reasonably be expected to be implemented.

1.100. National competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the general principles about the valuation of assets and liabilities will hold at $t=1$.

Guideline 36 - Multiple approximations

1.101. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking, where it will have to make several approximations, will assess whether there will be any interactions between these approximations that will need to be allowed for explicitly.

Chapter 8: Profit and loss attribution

Guideline 37 – Definition of profit and loss

1.102. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking considers profit and loss as changes over the relevant period, not attributable to capital movements, in:

- (a) basic own funds; or
- (b) other monetary amounts used in the internal model to determine changes in basic own funds, such as the actual change in economic capital resources.

- 1.103. National competent authorities should form a view on how the insurance or reinsurance undertaking considers economic capital resources in this context as the surplus of assets over the technical provisions and other liabilities not treated as capital, on an economic basis.
- 1.104. When an undertaking uses a variable other than the basic own funds in its internal model, national competent authorities should form a view on how the insurance or reinsurance undertaking uses this variable for the purposes of profit and loss.
- 1.105. National competent authorities should form a view on how, through the profit and loss attribution, the undertaking identifies how changes in the risk drivers relate with the movement in the variable underlying the probability distribution forecast.

Guideline 38 – Application of profit and loss attribution

- 1.106. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the profit and loss attribution is consistent with the intended applications of the profit and loss attribution in the use test and in the validation process.

Guideline 39 – Application of profit and loss attribution and the use test

- 1.107. As the results of the profit and loss attribution provide valuable information for risk management and decision-making and therefore for forming a view on how prepared the insurance or reinsurance is to comply with the use test, through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking will evaluate and document on a regular basis, and at least on an annual basis, how these results might be appropriately used within its risk management and decision-making.

Guideline 40 – Application of profit and loss attribution and validation

- 1.108. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that information relating to how the model has performed in the past provided by the profit and loss attribution feeds into the undertaking's regular validation cycle.

Chapter 9: Validation

Guideline 41 – Validation policy and validation report

- 1.109. Through the pre-application process, national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the validation policy it establishes sets out at least:
- (a) the processes, methods and tools used to validate the internal model and their purposes;
 - (b) the frequency of regular validation for each part of the internal model and the circumstances that trigger additional validation;
 - (c) the persons who are responsible for each validation task; and
 - (d) the procedure to be followed in the event that the model validation process identifies problems with the reliability of the internal model and the decision-making process to address those concerns.
- 1.110. National competent authorities should form a view on how the insurance or reinsurance undertaking documents in a validation report the results of the validation as well as the resulting conclusions and consequences from the analysis of the validation.
- 1.111. National competent authorities should form a view on how the insurance or reinsurance undertaking includes in this report a reference to the validation data sets as mentioned in Guideline 52 as well as the sign-off from the main participants in the process.

Guideline 42 – Scope and purpose of the validation process

- 1.112. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking, when specifying the purpose and scope of the validation, clearly sets out the specific purpose of the validation for each part of the internal model.
- 1.113. National competent authorities should form a view on how the insurance or reinsurance undertaking covers both qualitative as well as quantitative aspects of the internal model within the scope of the validation.
- 1.114. National competent authorities should form a view on how the insurance or reinsurance undertaking, when considering the scope of the validation, in addition to considering the validation of the various parts of the internal model, considers the validation in its entirety and in particular the appropriateness of the calculated probability distribution forecast to ensure that the level of regulatory capital will not be materially misstated.

Guideline 43 - Materiality

- 1.115. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking considers the materiality of the part of the internal model being validated, not only in isolation but also in combination, when using materiality to decide on the intensity of the validation activities.
- 1.116. When the insurance or reinsurance undertaking does not validate specific individual parts of the internal model with a high level of accuracy because of their lack of materiality, national competent authorities should form a view on how the insurance or reinsurance undertaking nevertheless takes into consideration that those parts in combination may be material when it decides how they should be validated appropriately.
- 1.117. National competent authorities should form a view on how the undertaking considers sensitivity testing when determining materiality in the context of validation.

Guideline 44 – Quality of the validation process

- 1.118. Through the pre-application process, national competent authorities should form a view on how the insurance or reinsurance undertaking sets out all the known limitations of the current validation process.
- 1.119. Where there are limitations to the validation of parts which are covered by the validation process, national competent authorities should form a view on how the insurance or reinsurance undertaking is aware of them and documents these limitations.
- 1.120. National competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the assessment of the quality of the validation process explicitly states the circumstances under which the validation is ineffective.
- 1.121. National competent authorities should form a view on how the insurance or reinsurance undertaking also identifies the source of uncertainty related to the validation process, and if feasible, a quantification of the degree of those uncertainties.

Guideline 45 – Governance of validation process

- 1.122. Through the pre-application process national competent authorities should form a view on the governance the insurance or reinsurance undertaking puts in place around the communication of the results of the validation it carries out.
- 1.123. National competent authorities should form a view on how the insurance or reinsurance undertaking forms and communicates internally an overall opinion based on the findings of the validation process.

- 1.124. National competent authorities should form a view on how the insurance or reinsurance undertaking puts in place pre-defined criteria in order to determine whether the results, or part of the results, of the validation, are required to be escalated within this undertaking.
- 1.125. National competent authorities should form a view on whether the insurance or reinsurance undertaking specifies under which conditions the results of the validation process should be escalated; and on how the insurance or reinsurance undertaking clearly defines and sets the escalation path in such a way as to maintain an independent validation process.
- 1.126. National competent authorities should form a view on how the validation policy the insurance or reinsurance undertaking establishes sets out how the results of the different validation tools are reported, for both regular validation as well as specific validation carried out, and how they will be used if the tests show that the internal model did not perform as intended.

Guideline 46 – Roles in validation process

- 1.127. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking, if parties other than the risk-management function contribute to specific tasks in the validation process, ensures that the risk-management function fulfils its overall responsibility as set out in Article 44 of Solvency II, including the responsibility to ensure the completion of the various tasks within the validation process.
- 1.128. National competent authorities should form a view on how the insurance or reinsurance undertaking formally explains the role of each party in the validation process defined.
- 1.129. National competent authorities should form a view on whether the allocation of tasks for the entire validation process is covered by the undertaking in the validation policy it establishes.

Guideline 47 – Independence in validation process

- 1.130. Through the pre-application process national competent authorities should form a view on how the risk-management function of the insurance or reinsurance undertaking, in order to provide an objective challenge to the internal model, ensures that the validation process is done independently from the development and operation of the model and that the tasks set out in the validation policy it establishes create and maintain the independence of the validation process.
- 1.131. National competent authorities should form a view on how the insurance or reinsurance undertaking, when deciding the parties which contribute to the tasks related to the validation process, takes into account the nature, scale and complexity of the risks that this

undertaking faces, the function and the skills of people to be involved, the internal organisation of the undertaking and its governance system.

Guideline 48 – Specificities for group internal models

- 1.132. Through the pre-application process for a group internal model the national competent authorities involved should form a view on how the insurance or reinsurance undertaking considers the validation of the internal model in the context of the calculation of both the consolidated group Solvency Capital Requirement and the Solvency Capital Requirement of related undertakings which would be calculated with the group internal model; and on how the insurance or reinsurance undertaking explicitly sets out this consideration in the validation policy it establishes for the group internal model.
- 1.133. National competent authorities should form a view on how the participating undertaking and the related undertakings for which the Solvency Capital Requirement would be calculated with the internal model, establishes a single validation policy to cover the validation process both at group and individual level.

Guideline 49 – Universe of tools

- 1.134. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the qualitative or quantitative validation tools it uses are appropriate and reliable to validate the internal model for internal use, and will be also appropriate and reliable for the Solvency Capital Requirement calculation.
- 1.135. National competent authorities should form a view on how the insurance or reinsurance undertaking understands the validation tools it uses and acknowledges that different tools have different characteristics and limitations.
- 1.136. National competent authorities should form a view on whether the insurance or reinsurance undertaking considers which validation tools or combination thereof are the most appropriate to meet the purpose and scope of the validation, as set out in the validation policy it establishes.
- 1.137. National competent authorities should form a view on how the insurance or reinsurance undertaking puts a process in place to choose the appropriate set of validation tools in order to ensure a robust validation process. National competent authorities should form a view on how the insurance or reinsurance undertaking documents this process and whether it considers at least the following characteristics when selecting the validation tools:

- (a) level of complexity: validation tools ranging from simplified techniques to sophisticated methods;
- (b) nature: validation tools being qualitative, quantitative or a combination of both;
- (c) knowledge required: the extent of knowledge required by the persons performing the validation;
- (d) independence: the level of independence required by the person performing the validation;
- (e) information required: potential restrictions to the amount or the type of information available for external versus internal validation; and
- (f) cycle of validation: validation tools varying to cover every key assumption made at different stages of the internal model from development, to implementation and to operation.

Guideline 50 – Stress tests and scenario analysis

- 1.138. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking uses stress tests and scenario analysis as part of the validation of the internal model.
- 1.139. In particular national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the stress tests and scenario analysis it uses cover the relevant risks and are monitored over time.

Guideline 51 – Application of the tools

- 1.140. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking is able to explain which parts of the internal model are being validated by each of the validation tools used and why these validation tools are appropriate for the particular purpose by describing at least:
- (a) the materiality of the part of the model being validated;
 - (b) the level at which the tool will be applied from individual risks, modelling blocks, portfolio, business unit to aggregated results;
 - (c) the purpose of this validation task; and
 - (d) the expected outcome from the validation.

Guideline 52 – Validation data sets

1.141. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the selected data and expert judgement used in the validation process effectively allows it to validate the internal model under a wide range of circumstances that have occurred in the past or could potentially occur in the future.

Chapter 10: Documentation

Guideline 53 - Control procedures

1.142. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking ensures that the documentation of the internal model is kept up to date and regularly reviewed.

1.143. In particular, national competent authorities should form a view on how the insurance or reinsurance undertaking puts in place at least:

- (a) an effective control procedure for internal model documentation;
- (b) a version control procedures for internal model documentation; and
- (c) a clear referencing system for internal model documentation which should be used in a documentation inventory.

Guideline 54 - Documentation of methodologies

1.144. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking produces a documentation which is detailed enough to evidence detailed understanding of the methodologies and techniques used in the internal model, including at least:

- (a) the underlying assumptions;
- (b) the applicability of such assumptions given the undertaking's risk profile; and
- (c) any shortcomings of the methodology or of the technique.

1.145. National competent authorities should form this view also in case a methodology or any other technique used by the insurance or reinsurance undertaking in the internal model is documented by an external party.

1.146. National competent authorities should form a view on how the insurance or reinsurance undertaking, when documenting the theory, assumptions and mathematical and empirical basis underlying any methodology used in the internal model, in accordance with Article 125(3) of Solvency II, includes, if available, the history of the development of the methodology, as well as any other methodologies which were considered but not subsequently used by the insurance or reinsurance undertaking.

Guideline 55 - Circumstances under which the internal model does not work effectively

1.147. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking includes in its documentation an overall summary of the shortcomings of the internal model, consolidated in a single document, containing at least the following aspects:

- (a) the risks which are not covered by the internal model;
- (b) the limitations in risk modelling used in the internal model;
- (c) the nature, degree and sources of uncertainty connected with the results of the internal model including the sensitivity of the results for the key assumptions underlying the internal model;
- (d) the deficiencies in data used in the internal model and the lack of data for the calculation of the internal model;
- (e) the risks arising out of the use of external models and external data in the internal model;
- (f) the limitations of information technology used in the internal model; and
- (g) the limitations of internal model governance.

1.148. National competent authorities should also form a view on how the insurance or reinsurance undertaking includes in this summary the work done to identify the shortcomings of the model and any plans for model improvements.

Guideline 56 - Appropriateness to addressees

1.149. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking considers having documentation of the internal model that consists of more than one level of documentation for the internal model, commensurate with the different uses and target audiences.

Guideline 57 - User manual

1.150. Through the pre-application process national competent authorities should form a view on how, as part of its documentation of the internal model, the insurance or reinsurance undertaking puts in place a user manual for operation of the internal model which should be sufficiently detailed to allow an independent knowledgeable third party to operate and run the internal model.

Guideline 58 - Documentation of model output

1.151. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking documents and retains, not necessarily in a single document, the outputs of the model that are relevant to satisfy the requirements of Article 120 of Solvency II.

Guideline 59 - Software and modelling platforms

1.152. National competent authorities should form a view on how the undertaking, in its documentation, provides information about the software, modelling platforms and hardware systems used in the internal model.

1.153. National competent authorities should form a view on how the undertaking, where using software, modelling platforms and hardware systems, provides in the documentation sufficient information to be able to assess and justify their use, and enable national competent authorities to assess their appropriateness.

Chapter 11: External models and data

Guideline 60 – External data

1.154. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking, given the nature of external data, demonstrates an appropriate level of understanding of the specificities of external data used in the internal model including any material transformation, rescaling, seasonality and any other processing inherent in the external data.

1.155. In particular, national competent authorities should form a view on how the insurance or reinsurance undertaking at least:

- (a) understands the attributes and limitations or other peculiarities of the external data;
- (b) develops processes for identifying any missing external data and other limitations;

- (c) understands the approximations and processing made for missing or unreliable external data; and
- (d) develops processes to run timely consistency checks including comparisons with other relevant sources.

Guideline 61 – Understanding of the external model

- 1.156. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking demonstrates that all parties involved in the use of the external model have a sufficiently detailed understanding of parts of the external model relevant to them including assumptions, technical and operational aspects.
- 1.157. National competent authorities should form a view on how the insurance or reinsurance undertaking gives particular attention to the aspects of the external model that are more relevant to its risk profile.

Guideline 62 – Reviewing the choice of external model and data

- 1.158. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking periodically reviews its justification for selecting a particular external model or set of external data.
- 1.159. National competent authorities should form a view on whether the insurance or reinsurance undertaking is not overly reliant on one provider and on how the undertaking puts in place plans to mitigate against any failures of the provider.
- 1.160. National competent authorities should form a view on how the insurance or reinsurance undertaking pays attention to any updates of the external model or of the data that allows the undertaking to better assess its risks.

Guideline 63 – Integration within the internal model framework

- 1.161. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking demonstrates that the approach for incorporating the external model into the internal model framework is appropriate; including the techniques, data, parameters, assumptions selected by the undertaking, and the external model output or outputs.

Guideline 64 – Validation

- 1.162. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking performs its own validation of the material assumptions of the external model that are relevant to its risk profile and of the process for

incorporating the external model and data within its own processes and internal model.

1.163. National competent authorities should form a view on how the insurance or reinsurance undertaking assesses the appropriateness of the selection or the non-selection of features or options which are available for the external model.

1.164. National competent authorities should form a view on how, as part of its own validation, the insurance or reinsurance undertaking considers appropriate information and in particular the analysis performed by the vendor or other third party, and, when doing so, on how the insurance or reinsurance undertaking ensures at least that:

- (a) the independence of the validation process from the development and operation of the internal model is not compromised;
- (b) it is consistent with the validation process the insurance or reinsurance undertaking sets out and is clearly laid out in the validation policy; and
- (c) any implicit or explicit bias in the analysis performed by the vendor or other third party is taken into account.

Guideline 65 - Documentation

1.165. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking, when documenting external models and data, demonstrates that it meets the documentation standards.

1.166. National competent authorities should form a view on how the insurance or reinsurance undertaking produces documentation on at least the following:

- (a) the aspects of the external model and external data that are relevant for its risk profile;
- (b) the integration of the external model or external data within its own processes and internal model;
- (c) the integration of data, in particular inputs, for the external model, or outputs from the external model, within its own processes and internal model; and
- (d) the external data used in the internal model and its source and use.

1.167. If, as part of its own documentation, the insurance or reinsurance undertaking leverages on the documentation produced by the vendors and service providers, national competent authorities should form a

view on how the insurance or reinsurance undertaking ensures that its ability to meet the documentation standards would not be compromised.

Guideline 66 - National competent authorities' relationship with vendors of external models

- 1.168. Through the pre-application process national competent authorities should form a view on how the insurance or reinsurance undertaking keeps its responsibility for discharging its obligations related to its internal model and for the role of external model or data in the internal model and any other requirements.
- 1.169. National competent authorities should make clear to the insurance or reinsurance undertaking that any contact between national competent authorities and the vendors of an external model to inform national competent authorities' reviews of such model should not exempt the insurance or reinsurance undertaking from demonstrating that the external model fulfils the internal model requirements.
- 1.170. National competent authorities should form a view on the use of an external model entirely for each individual pre-application process.
- 1.171. National competent authorities should make clear to the insurance or reinsurance undertaking that they will reject any application for using an external model if the insurance or reinsurance undertaking fails to provide the specific information required in order for an assessment of the application to be carried out by national competent authorities.

Guideline 67 - Role of service providers when using external models and data

- 1.172. Through the pre-application process national competent authorities should form a view on whether the insurance or reinsurance undertaking uses an outsourcing agreement when it chooses not to operate the external model directly.
- 1.173. Similarly, national competent authorities should form a view on whether the insurance or reinsurance undertaking, through an outsourcing agreement, mandates a service provider to perform some tasks related to the external data.
- 1.174. National competent authorities should make clear to the insurance or reinsurance undertaking that it should not consider such outsourcing agreements to be a justification for exemption from demonstrating that the internal model fulfils the requirements.
- 1.175. National competent authorities should form a view on how the insurance or reinsurance undertaking ensures that any outsourcing agreement regarding the operation of an internal model or the performance of tasks related to the external data, in application of the

requirements set out in Article 49 of Solvency II, defines the duties of the parties.

1.176. National competent authorities should form a view on how the insurance or reinsurance undertaking, irrespective of which party actually performs the tasks associated with the service provided, retains overall responsibility.

Chapter 12: Functioning of colleges during the pre-application process for internal models for groups

Guideline 68 - Forming a view about the scope of the internal model during the pre-application process for internal models for groups

1.177. During the pre-application process for an internal model for a group, when forming a view about the appropriateness of the scope of the internal model, the group supervisor, the other national competent authorities involved and other national competent authorities identified by the college should consider at least in particular:

- (a) the significance of related undertakings within the group with respect to the risk profile of the group;
- (b) the risk profile of related undertakings within the group compared to the overall group risk profile;
- (c) if applicable, a transitional plan by the group to extend the scope of the model at a later stage and the timeframe to do so;
- (d) the appropriateness of the standard formula or another internal model under pre-application that would be used for the calculation of the Solvency Capital Requirement of any related undertaking included in the scope of the internal model but which Solvency Capital Requirement would not be calculated with the internal model for the group; and
- (e) the appropriateness of the standard formula or another internal model under pre-application that would be used for the calculation of the Solvency Capital Requirement of any related undertaking within the group but not included in the scope of the internal model for the group.

1.178. When forming a view about the appropriateness of the exclusion of related undertakings within the group from the scope of the internal model, the group supervisor and the other national competent authorities involved, should assess whether this exclusion by the undertaking could lead to:

- (a) an improper allocation of own funds based on individual undertaking Solvency Capital Requirements rather than contribution to risk profile of the group;
- (b) inconsistencies that would derive from the use of the internal model to calculate the group solvency capital requirement and the use of the standard formula or a different internal model under pre-application by any related undertaking within the group to calculate its Solvency Capital Requirement;
- (c) weaknesses in risk management of the group and related undertakings within the group resulting from the limited scope of the internal model; or
- (d) an inadequate group Solvency Capital Requirement in relation to the risk profile of the group.

Guideline 69 - Tasks of the group supervisor and the other national competent authorities involved and participating in the pre-application process for internal models for groups

- 1.179. During the pre-application process for an internal model for a group, the group supervisor and the other national competent authorities involved should agree on the most efficient and effective allocation of tasks among the different national competent authorities involved.
- 1.180. The group supervisor, in consultation with the other national competent authorities involved, should record the agreed allocation of tasks and set up a work plan and the communication rules to follow among the national competent authorities involved during the pre-application process.
- 1.181. When appropriate, the group supervisor, in consultation with the other national competent authorities involved, should update the work plan.
- 1.182. The group supervisor should ensure that the work plan covers the timeline, main steps and deliverables for the pre-application process.
- 1.183. The group supervisor should ensure that the work plan, at least:
- (a) establishes when and how to consult and involve in the pre-application process the other national competent authorities involved;
 - (b) establishes when and how to allow the other national competent authorities within the college of supervisors to participate in the pre-application process, bearing in mind that their participation would be limited to identifying and preventing circumstances where the exclusion of parts of the business from the scope of the internal model could lead to a material underestimation of the risks of the group, or where the internal model could conflict

with another internal model under pre-application that would be used for the calculation of the Solvency Capital Requirement of any of the insurance or reinsurance undertakings in the group; and

- (c) identifies the priorities for the assessment, taking into account the scope of the internal model, the specificities of each related undertaking within the group, the risk profile of the group and related undertakings within the group and the available and relevant information about the internal model.

1.184. Whenever a national competent authority involved identifies a substantial point of concern regarding the pre-application process, it should share its concern with the group supervisor and the other involved authorities as soon as feasible.

Guideline 70 - Joint on-site examinations carried out during the pre-application process for internal models for groups

1.185. During the pre-application process for an internal model for a group, the group supervisor and the other national competent authorities involved should propose and discuss when and how to organize joint on-site examinations to verify any information concerning the pre-application process, with the aim of ensuring the effectiveness of this process.

1.186. The national competent authorities proposing a joint on-site examination should inform the group supervisor by indicating the scope and purpose of this examination, taking into account the objectives of joint on-site examinations in relation to the pre-application process as defined by the national competent authorities involved.

1.187. The group supervisor should then notify the other national competent authorities involved in the pre-application process, EIOPA, and, where relevant, other national competent authorities within the college, national competent authorities of significant branches as referred to in Article 248(3) of Solvency II, and the national competent authorities responsible for the supervision of other branches.

1.188. Once the national competent authorities participating in the joint on-site examination have been identified, they should discuss and agree the final scope, purpose, structure and allocation of tasks of the examination, including who is leading the review.

1.189. The national competent authority organising the on-site examination, if other than the group supervisor, should provide the relevant documentation to the group supervisor.

1.190. The group supervisor should make the relevant documentation available to the national competent authorities involved in the pre-

application process, to the other national competent authorities participating in the joint on-site examination and to EIOPA. The group supervisor should provide the rest of college members and participants with a list of the relevant documentation received and provide them with the relevant documentation upon specific request.

- 1.191. On the basis of a report stating the main findings of the joint on-site examination, the national competent authority organising the on-site examination should discuss with the national competent authorities involved the outcome of the joint on-site examination and the actions to be taken.
- 1.192. The group supervisor should notify the rest of college members about the outcome and actions as part of the agreed communication within the college.
- 1.193. When they consider appropriate, the group supervisor or the national competent authority organising the on-site examination should also inform the undertaking of the outcome of the joint on-site examination.

Guideline 71 – Off-site activities on internal models during the pre-application process for internal models for groups

- 1.194. During the pre-application process for an internal model for a group, national competent authorities involved should share and discuss the main findings of their off-site activities with the group supervisor and the other national competent authorities involved.
- 1.195. The national competent authorities involved should share the approach they are following in the review of the elements of the internal model with the group supervisor and the other national competent authorities involved.
- 1.196. If, as a result of this sharing, the national competent authorities involved identify substantial differences in the approaches followed, they should discuss and they should agree on a process to develop consistent approaches when they consider appropriate to have this alignment.
- 1.197. When they deem appropriate, the national competent authorities involved should consider sharing the tools and techniques they are using for the review of the elements of the internal model with the other national competent authorities involved.

Guideline 72 - Involvement of third country national competent authorities during the pre-application process for internal models for groups

- 1.198. During the pre-application process for an internal model for a group, the group supervisor and the other national competent authorities involved should form a view on whether third country national

competent authorities should be consulted, in the case that the contribution of the third country undertaking to the group's risk exposure is material.

- 1.199. Before consulting the third country national competent authority, the group supervisor, with the support of the national competent authorities involved, should take appropriate steps to ensure that the legislative provisions on the confidentiality of information of the jurisdiction where the third country national competent authority is situated are equivalent to the professional secrecy requirements resulting from Solvency II, other EU Directives and national legislation applicable to the involved national competent authorities.

Compliance and Reporting Rules

- 1.200. This document contains Guidelines issued under Article 16 of the EIOPA Regulation. In accordance with Article 16(3) of the EIOPA Regulation, Competent Authorities shall make every effort to comply with guidelines and recommendations.
- 1.201. Competent authorities that comply or intend to comply with these Guidelines should incorporate them into their regulatory or supervisory framework in an appropriate manner.
- 1.202. Competent authorities shall confirm to EIOPA whether they comply or intend to comply with these Guidelines, with reasons for non-compliance, by [dd mm yyyy].
- 1.203. In the absence of a response by this deadline, competent authorities will be considered as non-compliant to the reporting.

2. Annex I – Impact Assessment

- 2.1. The EIOPA Guidelines on Pre-application for Internal Models aim to provide guidance on what national competent authorities and the insurance or reinsurance undertaking should consider, during the pre-application process, in order that national competent authorities are able to form a view on how prepared an insurance or reinsurance undertaking engaged in a pre-application process is to submit an application for the use of an internal model for the calculation of the Solvency Capital Requirement under Solvency II and to meet the internal models requirements set out in the Directive. These goals have been underlined by EIOPA in the “Opinion on interim measures regarding Solvency II” of the 20 December 2012⁵.
- 2.2. EIOPA Guidelines will help:
 - (a) National competent authorities to form their view during the pre-application process and increasing the convergence of supervisory practices in this respect; and
 - (b) Undertakings to prepare for submitting an application to use an internal model under Solvency II and to build their internal model framework in a way that enables them to be prepared to use their model both for risk management and decision-making purposes, and for the calculation of the Solvency Capital Requirement.

Proportionality

- 2.3. When developing the proposed policies EIOPA has considered the respective proportionality aspects and has provided reference as appropriate. For the overall approach to proportionality on the Guidelines under consultation, please see the “Cover note for the Consultation Paper on Guidelines on preparing for Solvency II”.
- 2.4. National competent authorities should take into account the proportionality principle when reviewing the internal model of the insurance or reinsurance undertaking engaged in a pre-application process in order to form a view on how prepared this undertaking is to fulfil the requirements for the use of internal models, bearing in mind that proportionality principle should not, however, be understood as waving or lowering any of the requirements.
- 2.5. In particular national competent authorities should take into account the proportionality principle by considering the nature, scale and complexity of the risks to which an insurance or reinsurance undertaking is exposed as well as the design, scope and qualitative

⁵ https://eiopa.europa.eu/fileadmin/tx_dam/files/publications/opinions/EIOPA_Opinion-Interim-Measures-Solvency-II.pdf

aspects of the internal model of this undertaking when deciding on the extent of the reviews.

Baseline Scenario

- 2.6. When analysing the impact from policies, the methodology foresees that a baseline scenario is applied as the basis for comparing policy options. This helps to identify the incremental impact of each policy option considered. The aim of the baseline scenario is to explain how the current situation would evolve without additional public intervention.
- 2.7. For the analysis of the potential related costs and benefits of the proposed Guidelines on Pre-application for Internal Models, EIOPA has applied as a baseline the current practice for the pre-application process including any preparation that has been made for implementing Solvency II and the provisions set out in the CEIOPS' Level 3 Guidance on Pre-Application process for internal models. EIOPA has taken into account that undertakings applying for the use of an internal model to calculate the Solvency Capital Requirement under Solvency II will have to comply with Solvency II requirements as further specified in the Delegated Acts when issued.
- 2.8. Taking into account this baseline scenario, EIOPA considers that only the following Guidelines add new requirements:
 - (a) Validation report;
 - (b) Documentation user manual; and
 - (c) Work plan for pre-application and setting out the tasks of the group supervisor and the other national competent authorities involved and participating in the pre-application process for internal models for groups.
- 2.9. Specific Impact Assessment reports for these Guidelines are included below.
- 2.10. The other Guidelines involve no additional requirements, taking into account that undertakings applying for the use of an internal model to calculate the Solvency Capital Requirement under Solvency II will have to comply with Solvency II requirements as further specified in the Delegated Acts when issued. Therefore they either do not create additional costs or create limited costs. Specific consideration of this can be found in the Appendix to this Annex.

I) Preliminary analysis of the opportunity of issuing Guidelines

- 2.11. Before analysing pros and cons of the proposed groups of Guidelines with respect to the baseline, it is necessary, on a logical basis, to justify the choice of issuing Guidelines now or not doing nothing and wait until the application of Solvency II.
- 2.12. For this null option it is possible to identify the following costs and benefits:

Option 0, not issuing Guidelines:

- 2.13. With regard to costs on the side of undertakings: it is expected that not having further details now on pre-application would make more difficult to be prepared for submitting an application under Solvency II to use an internal model, taking also into account the amount of resources undertakings are devoting in building their model. Moreover, without Guidelines on pre-application there may be less convergence in the national competent authorities' review of internal models, and this might increase costs in particular for groups established in several countries.
- 2.14. With regard to costs on the side of national competent authorities: it is expected that not having further details now on the review national competent authorities carry out during pre-application would make more difficult for national competent authorities and colleges to allocate resources in an efficient manner for the pre-application process. In the future, when the final application may be submitted by the undertaking, the decision process may be less smooth. There may be a lack of consistency in national competent authorities' practices and reviews of internal models during the pre-application process, which may affect in particular colleges.
- 2.15. With regard to benefits on the side of undertakings: taking into consideration the work performed until now during pre-application, it is expected that undertakings have already started their preparation for submitting an application, based on the already existing dialogue with national competent authorities as set out in the CEIOPS Guidance on Pre-application. The advantage for the undertaking could be that, now, it would not have to take into account new aspects or further elements during pre-application, while building its model in order to be prepared for submitting an application for the use under Solvency II. However, one can argue if that (not having guiding principles) is really an advantage.
- 2.16. With regard to benefits on the side of national competent authorities: taking into consideration the work performed until now during pre-application, national competent authorities have already started the dialogue with undertakings on the basis of the CEIOPS' Guidance on Pre-application. The advantage for national competent authorities could be that they would not have to take into account new aspects or further elements in the review they carry out during pre-application. However,

one can argue if that (not having guiding principles) is really an advantage.

- 2.17. For consumers: no immediate advantage as any costs that may be reflected on policyholders would also happen with normal preparation of Solvency II. And this is true also on the side of possible costs.

The balancing between cons and pros led to the final evaluation that is beneficial for all providing now Guidelines, to help undertakings and national competent authorities in preparing and organising during the pre-application phase.

II) Validation report

1: Procedural issues and consultation of interested parties

- 2.18. The Impact Assessment was prepared in the course of the policy drafting process, with the contribution of experts on internal models from different national competent authorities and EIOPA.
- 2.19. Selected stakeholders were pre-consulted in the preparation of the Guidelines.

2: Problem definition

- 2.20. Through the pre-application process national competent authorities should form a view on how prepared the undertaking is to fulfil the validation requirements. To this end, national competent authorities should in particular form a view on how the undertaking deals with the results of each validation cycle it carries out and with the conclusions and consequences of this validation.
- 2.21. National competent authorities need to form a view on the appropriateness of the approach followed by the undertaking.
- 2.22. Undertakings need to prepare for the validation of the internal model they would use under Solvency II for the calculation of the Solvency Capital Requirement.

3: Objective pursued

- 2.23. The "Opinion on interim measures regarding Solvency II" issued by EIOPA on the 20th December 2012 states that it is important that there will be a consistent and convergent approach with respect to the preparation of Solvency II. Pre-application of internal models is one of the key areas that need to be addressed during the run-up to the new system.
- 2.24. In the light of this general goal, the objective of the Guideline on "Validation report" is to determine the best way the results, conclusions and consequences of each validation cycle could be set out by the undertaking in order for the national competent authorities to form the view referred to above and for the undertaking to prepare itself for submitting an application for the use of an internal model under Solvency II.

4: Policy options

2.25. Two Options were foreseen:

Option 1: Putting in place a validation report by the undertaking, documenting the results for each validation cycle as well as the resulting conclusions and consequences from the analysis of the validation.

Option 2: Not putting in place a validation report, that would imply having ad-hoc requests by national competent authorities on the conclusions of each validation cycle of the undertaking.

5: Analysis of impacts

2.26. With respect to the baseline it is possible to identify the following costs and benefits for each of the options.

Option 1:

2.27. With regard to costs on the side of undertakings:

- (a) in preparing for submitting an application for the use of an internal model, they will need to devote time and resources from putting in place the formal validation report for each validation cycle;
- (b) the materiality of these costs will vary depending on the level of detail of the validation process performed, the tools used and the actions to be taken as a result;
- (c) formalising the report might require a longer and deeper work by the undertaking in its assembling and editing. Moreover, formalization may imply direct endorsement of the report by the managing board, who would be asked to pay attention and devote time to read and check it.

2.28. With regard to costs on the side of national competent authorities:

- (a) during pre-application process, they will have to dedicate specific resources to review the way the undertaking puts in place the report in order to form a view about its readiness to comply with the validation requirements;
- (b) in the future, in supervisory assessment of the on-going compliance of the internal model, the report produced by undertakings for each validation cycle could not fit to potential specific supervisory analyses. If it is the case, national competent authorities could find themselves in the need of asking additional information that cannot be immediately ready.

2.29. With regard to benefits on the side of undertakings:

- (a) with formal reports, the validation activity will be carefully recorded in order to be able to ensure the efficiency of the validation and be better prepared to comply with validation requirements;
- (b) each cycle of validation of the internal model will have its own formal report, so providing all information necessary to reconstruct and follow during time the evolution of the model and of the governance steps linked to it;
- (c) moreover, with a formal report there will be incentives towards more control around all the validation process, identifying the data sets used and the different parts involved and their roles;
- (d) if the results of the validation process are documented, it will be easier to report and escalate them within the undertaking in order to take the appropriate decisions and actions that may be needed in the internal model. From this point of view, a formal report works as a real tool to improve the governance around the validation process;
- (e) if the reports cover all possible information and elements that national competent authorities may be interested in, it will help in saving costs associated with extemporaneous ad-hoc requests.

2.30. With regard to benefits on the side of national competent authorities: national competent authorities would benefit in the future from being able to verify overall on-going compliance with validation standards directly in the report, avoiding ad-hoc requests and saving costs associated to such requests. In particular, information available in the report would assume the status of official information, and this would simplify the relationship between undertakings and national competent authorities, limiting the number of ad-hoc request, and most of all those to ask confirmation, on a legal basis, and endorsement of single data or single features.

2.31. No additional costs are expected for consumers, while they surely will benefit from the sounder governance and the higher level of transparency associated with formal validation reports.

Option 2:

2.32. With regard to costs on the side of undertakings:

- (a) undertakings may not regularly document the results of each validation cycle, and therefore it will be more difficult to communicate internally and adopt the appropriate actions that may be needed in the internal model as a result of each validation cycle;
- (b) undertakings may lose some control over the validation process, in particular regarding the tools, data set used and the participants involved;

- (c) make more difficult to prepare for the use of models under Solvency II and in particular for the validation requirements.
- 2.33. With regard to costs on the side of national competent authorities:
- (a) in the case that in the future the model is approved, there would be a need to assess at every validation cycle whether a report of the validation should be requested to the undertaking;
 - (b) more resources needed to determine what the content of the ad-hoc request would be.
- 2.34. With regard to benefits on the side of undertakings: some costs may be saved, as they would not have to produce the report in each validation cycle.
- 2.35. With regard to benefits on the side of national competent authorities: ad-hoc requests would fit the purpose of specific supervisory needs.
- 2.36. Consumers would suffer from a less sound validation process.

6: Comparing the options

- 2.37. In relation to Option 1 it has to be considered that a validation report would be requested to be included in the application package for the internal model application. This probably will help undertakings in producing the future reports for each validation cycle if their model is approved.
- 2.38. EIOPA considered, as an alternative option (Option 2), the possibility of not giving a formal nature to the report. The costs of having a formalized report compared to this alternative option are minor. Even if not formalized, the report would need anyway to be correct, complete and readable in all its information; so, all the costs of gathering data, analysing them and deriving management suggestions would be similar if the report was not formalised.

On the basis of these arguments, EIOPA opted for Option 1: National competent authorities will form a view on how the undertaking puts in place a formal validation report in order to stress the importance of the undertaking's validation procedure.

III) Documentation user manual

1: Procedural issues and consultation of interested parties

- 2.39. The Impact Assessment was prepared in the course of the policy drafting process, with the contribution of experts on internal models from different national competent authorities and EIOPA.
- 2.40. Selected stakeholders were pre-consulted in the preparation of the Guidelines.

2: Problem definition

- 2.41. Through the pre-application process national competent authorities should form a view on how prepared the undertaking is to fulfil the documentation requirements.
- 2.42. Undertakings need to prepare for the use of internal model they would use under Solvency II for the calculation of the Solvency Capital Requirement and for operating it in a proper manner.
- 2.43. Since the result from the internal model would form the Solvency Capital Requirement and would also form the basis for steering and making decisions (use test) in the undertaking on an on-going basis, it is necessary that documentation enables an independent knowledgeable third party to determine the state, appropriateness and reliability of the internal model at all times.

3: Objective pursued

- 2.44. The "Opinion on interim measures regarding Solvency II" issued by EIOPA on the 20th December 2012 states that it is important that there will be a consistent and convergent approach with respect to the preparation of Solvency II. Pre-application of internal models is one of the key areas that need to be addressed during the run-up to the new system.
- 2.45. In the light of this general goal, the objective of the Guideline on "Documentation user manual" is to determine the best way the undertaking could ensure that the operation of the model could remain appropriate at all times, and how documentation could help on this. Through the pre-application process national competent authorities will form a view on how the undertaking ensures this.

4: Policy options

- 2.46. Two Options were foreseen:

Option 1: Putting in place by the undertaking of a detailed user manual as part of the documentation of the model which should be sufficiently detailed to allow an independent knowledgeable third party to operate and run the model.

Option 2: Not doing anything in addition to the baseline.

5: Analysis of impacts

- 2.47. With respect to the baseline it is possible to identify the following costs and benefits for each of the options.

Option 1:

- 2.48. With regard to costs on the side of undertakings:

- (a) in preparing for submitting an application for the use of an internal model, they would need to devote time and resources to put in place a detailed manual as part of the documentation of the internal model;

- (b) the materiality of these costs would vary depending on the level of detail of the specific internal model.
- 2.49. With regard to costs on the side of national competent authorities: not foreseen.
- 2.50. With regard to benefits on the side of undertakings:
- (a) the different users of the model would be able to better understand how the model operates;
 - (b) a user manual for operation of the internal model is an important mitigant to key-person risk, which exists both at model design level and model operation level.
- 2.51. With regard to benefits on the side of national competent authorities: in the same direction as undertakings, national competent authorities would be able to more easily form a view on the appropriateness of the way the undertaking run the model.
- 2.52. No additional costs are expected for consumers, while they surely would benefit from a better way to operate the model by the undertaking.

Option 2:

- 2.53. With regard to costs on the side of undertakings:
- (a) the key-person risk would be increased;
 - (b) it would be more difficult to deep into the operation of the model by different users.
- 2.54. With regard to costs on the side of national competent authorities: it would be more difficult to form a view on the appropriateness of the way the undertaking runs the model.
- 2.55. With regard to benefits on the side of undertakings: they would not to dedicated resources to put in place the user manual.
- 2.56. With regard to benefits on the side of national competent authorities: they would not to dedicated resources to form their view on how the undertaking puts in place the user manual.
- 2.57. Consumers may be less protected as undertaking would be more exposed to the key person risk.

6: Comparing the options

- 2.58. The benefits of Option1 are higher than the ones of Option 2.
- 2.59. These benefits of Option 1 clearly overcome the costs related to its implementation.
- 2.60. Since the result from the internal model would form the Solvency Capital Requirement and will also form the basis for steering and making decisions (use test) in the undertaking on an on-going basis, it is necessary that documentation enables an independent knowledgeable

third party to determine the state, appropriateness and reliability of the internal model at all times.

- 2.61. If the documentation does not include a tool specifying the design and operational details which is not thorough enough, sufficiently detailed and sufficiently complete to be understandable by an independent knowledgeable third party, the undertaking could be faced with increased key-person risk.

Therefore it was decided to follow the Option 1: National competent authorities should form a view on how the undertaking puts in place a user manual for operation of the internal model.

IV) Work plan for pre-application and setting out the tasks of the group supervisor and the other national competent authorities involved and participating in the pre-application process for internal models for groups

1: Procedural issues and consultation of interested parties

- 2.62. The Impact Assessment was prepared in the course of the policy drafting process, with the contribution of experts on internal models from different national competent authorities and EIOPA.

2: Problem definition

- 2.63. Through the pre-application process national competent authorities should form a view on how prepared a group undertaking is to submit an application to use an internal model that would be used to calculate the consolidated group Solvency Capital (Article 230 of Solvency II), or to calculate the consolidated group Solvency Capital Requirement, as well as the Solvency Capital Requirement of at least one related undertaking (group internal model under Article 231 of Solvency II).
- 2.64. In the case of a pre-application process for an internal model for a group composed of several insurance or reinsurance undertakings which are supervised by national competent authorities of different Member states, during the pre-application process, those national competent authorities will work together in order to form a view about the internal model.

3: Objective pursued

- 2.65. The "Opinion on interim measures regarding Solvency II" issued by EIOPA on the 20th December 2012 states that it is important that there will be a consistent and convergent approach with respect to the preparation of Solvency II. Pre-application of internal models is one of the key areas that need to be addressed during the run-up to the new system.
- 2.66. In the light of this general goal, the objective of the Guideline on work plan for pre-application is to ensure that national competent authorities involved in the pre-application process for a group work in an effective and coordinated way.

4: Policy options

2.67. Two Options were foreseen:

Option 1: Setting out a detailed work plan for the pre-application process, covering the timeline, the steps, the deliverables and the priorities of the process for the pre-application process for an internal model for groups. This plan should be updated whenever necessary.

Option 2: Not doing anything in addition to the baseline.

5: Analysis of impacts

2.68. With respect to the baseline it is possible to identify the following costs and benefits for each of the options.

Option 1:

2.69. With regard to costs on the side of undertakings: no particular costs, as the costs are generated for the pre-application process per se and for the need to react on the requests the national competent authorities would make to the different undertakings within the group in order to form a view about the model under pre-application.

2.70. With regard to costs on the side of national competent authorities:

- (a) all national competent authorities involved in pre-application (and other national competent authorities in the colleges), in particular the group supervisor, would have to dedicate specific resources to prepare, discuss and agree on the detailed plan and on its update when necessary;
- (b) national competent authorities would have to stick to the work plan, so less flexibility can be expected.

2.71. With regard to benefits on the side of undertakings: the requests from national competent authorities involved would follow a logical sequence and the risk of receiving duplication of requests would be reduced.

2.72. With regard to benefits on the side of national competent authorities:

- (a) they would benefit from a clearer a more efficient pre-application process;
- (b) national competent authorities involved would know the tasks they are expected to perform;
- (c) the governance around the pre-application process would be increased;
- (d) the risk of duplication of tasks would be reduced;
- (e) an efficient pre-application would make easier the future approval process of the application the group may submit.

2.73. No additional costs are expected for consumers, while they surely would benefit from the more efficient process.

Option 2:

2.74. With regard to costs on the side of undertakings: in the lack of a detailed and coordinated planning, the risks of duplication of requests from different national competent authorities within the college would increase significantly.

2.75. With regard to costs on the side of national competent authorities:

(a) the pre-application process could become difficult to manage, making it less efficient and more demanding in terms of resources and timing;

(b) the risk of duplications of tasks would be increased.

2.76. With regard to benefits on the side of undertakings: not foreseen.

2.77. With regard to benefits on the side of national competent authorities: the process could be somehow more flexible.

2.78. Consumers could be penalised due to a less efficient process.

6: Comparing the options

2.79. A formal work plan, as set out in Option 1, is an extremely helpful tool to ensure the effectiveness of the pre-application process and to stress the importance of a full cooperation between national competent authorities involved and other national competent authorities in the college during the pre-application process.

2.80. EIOPA believes that, in the absence of this document (Option 2), the pre-application process could become difficult to manage, making it less efficient and demanding in terms of resources and timing, and increasing the risk of duplications of tasks.

2.81. The advantages of having clear and detailed work plan clearly overcome the costs of establishing such plan.

Bearing in mind the high importance of ensuring a good cooperation within the college during the pre-application process and that the national competent authorities within the college will have to agree in forming a view about the internal model, it was decided to follow the Option 1.

Appendix

2.82. The following Guidelines involve no additional requirements, and therefore they either do not create additional costs or create limited costs. In fact they simply work as clarifications and explications of the elements that national competent authorities and undertakings should take into account in order that national competent authorities form their view during the pre-application process on how prepared the undertaking is to submit an application to use an internal model for the calculation of the Solvency Capital Requirement.

General Guidelines pre-application

2.83. The aim of this group of Guidelines is to explain what national competent authorities and the undertaking need to consider, through the pre-application process, in order that national competent authorities are able to form a view on how prepared the undertaking is to submit an application for the use of an internal model for the calculation of the Solvency Capital Requirement under Solvency II and to meet the internal models requirements for this use.

2.84. The Guideline on national competent authorities' review only clarifies how national competent authorities should review the model for the purposes of pre-application, introducing the proportionality principle and the necessity to take into account the specificities of each undertaking.

2.85. The Guideline on changes during pre-application provides some light about what to do in the case of changes made by the undertaking to its model during pre-application. It might create costs to national competent authorities in respect of the need to monitor and, where appropriate, review changes to the internal model during the pre-application process, but this is necessary to form a view on the model for the purposes of this process.

2.86. No additional options were foreseen for the Guidelines.

Model changes

2.87. The aim of this group of Guidelines is to provide guidance about what national competent authorities and the undertaking need to consider, through the pre-application process, in order that national competent authorities are able to form a view about the relevance and the adequacy of the policy for changing the internal model the undertaking establishes (Article 115 of Solvency II).

2.88. The first Guideline of this Chapter explains that national competent authorities will form a view on how the policy for changing the model developed by the undertaking covers some relevant aspects. An alternative option would have been to include in the policy any change that would make necessary to alter the substance of the documentary evidence of the model compared with the last application for the use of such model. The option embedded in the Guideline was considered more useful and straightforward than the alternative one.

- 2.89. The second Guideline requests national competent authorities to form a view on how the undertaking develops a reliable system to identify major changes, taking into account quantitative and qualitative criteria. An alternative option would have been to specify and list what should be considered as major changes for all cases. This last option was not followed as it was considered not proportional: it gives no responsibility to the undertaking to choose its own set of indicators that would fit its risk profile and specific needs.
- 2.90. The final Guideline of the Chapter provides explanations for model changes and policy for model changes in the context of group internal models that would be used for the calculation of both the group Solvency Capital Requirement and the Solvency Capital Requirement of some related undertakings. An alternative option to the one embedded in the Guideline would have been to let every related undertaking in the group to develop its own policy. This alternative option was not selected because it was considered against the principle of economic unity of a group.
- 2.91. For the rest of Guidelines no alternative option was foreseen.

Use test

- 2.92. The aim of this group of Guidelines is to provide guidance about what national competent authorities and the undertaking need to consider, through the pre-application process, in order that national competent authorities are able to form a view on how prepared the undertaking is to comply with the use test as set out in Article 120 of Solvency II.
- 2.93. In the case of the first Guideline of this Chapter, it was foreseen as an alternative option that national competent authorities could form a view on how undertakings demonstrate a list of mandatory and specific uses that would have been applicable in any case. Since the internal model and its use are specific for each undertaking, this alternative option was not chosen.
- 2.94. Regarding the Guideline requesting the need to improve the quality of the internal model, an alternative option would have been the use of the internal model by the undertaking in the risk management system and decision-making without analysing any potential changes of the internal model that could improve it. This option was rejected as it does not incentivise the continuous improving of modelling practices, which is considered as EIOPA as a core principle of an internal model framework.
- 2.95. For the rest of Guidelines, no additional options were foreseen.

Assumption setting and expert judgement

- 2.96. The aim of this group of Guidelines is to provide guidance about what national competent authorities and the undertaking need to consider, through the pre-application process, in order that national competent authorities are able to form a view on how prepared the undertaking is to fulfil the requirements related to assumptions setting and expert judgement.

2.97. The Guidelines allow for a better control and knowledge by the undertaking around the assumptions made in the internal model and the use of expert judgment. No alternative options were taken into account.

Methodology consistency

2.98. The aim of this group of Guidelines is to provide guidance about what national competent authorities and the undertaking need to consider, through the pre-application process, in order that national competent authorities are able to form a view on how prepared the undertaking is to fulfil the requirements related to the consistency between the methods used for the calculation of the probability distribution forecast and the methods that would be used for technical provisions for solvency purposes.

2.99. Regarding the Guideline on consistency check points and the one on aspects of consistency, no alternative options were considered.

2.100. Regarding the Guideline on consistency assessment, the option on forming a view about how the undertaking carries out its analysis about consistency was preferred to the option of the setting out of a standardised way to assess it. The first option was considered as more flexible and it has the advantage that it adapts the consistency checks to the specificities of the undertaking.

2.101. For the rest of Guidelines no alternative options were considered.

Probability distribution forecast

2.102. The aim of this group of Guidelines is to provide guidance about what national competent authorities and the undertaking need to consider, through the pre-application process, in order that national competent authorities are able to form a view on how prepared the undertaking is to fulfil requirements related to the probability distribution forecast and knowledge of its risk profile by the undertaking.

2.103. The first Guideline of this Chapter allows for a better expectation management for undertakings in order that the probability distribution forecast can reflect all relevant characteristics of its risk profile. national competent authorities should form a view on how the undertaking ensures that. An alternative option would have been to ask for more specific information not up-front, but in the course of on-site inspections. This was considered more onerous and time-consuming and not less costly for the undertaking.

2.104. The second Guideline further elaborates on the topic dealt with in the first one.

2.105. The rest of Guidelines clarify how to form a view by national competent authorities on when requirements would be met by the undertaking in the case of some features that can affect the richness of the probability distribution forecast. No alternative options were considered.

Calibration - approximations

- 2.106. The aim of this group of Guidelines is to provide guidance about what national competent authorities and the undertaking need to consider, through the pre-application process, in order that national competent authorities are able to form a view on how prepared the undertaking is to fulfil the requirements related to approximations that would be used to derive the Solvency Capital Requirement from internal models adopting another risk measure than the reference one in the context of Article 122 of Solvency II.
- 2.107. No alternative options than the ones embedded in the Guidelines were considered.

Profit and loss attribution

- 2.108. The aim of this group of Guidelines is to provide guidance about what national competent authorities and the undertaking need to consider, through the pre-application process, in order that national competent authorities are able to form a view on how prepared the undertaking is to fulfil the profit and loss attribution requirements set out in Article 123 of Solvency II.
- 2.109. An alternative option has been considered only for the first Guideline of this Chapter. In this case, it could have been possible a link with the regulatory capital for the purposes of profit and loss, instead of the option embedded in the Guideline. It was decided to reject this option, as it was considered that undertakings should follow for these purposes what it makes sense for them from an economic point of view and internal purposes.

Validation

- 2.110. The aim of this group of Guidelines is to provide guidance about what national competent authorities and the undertaking need to consider, through the pre-application process, in order that national competent authorities are able to form a view on how prepared the undertaking is to fulfil the validation requirements set out in Article 124 of Solvency II.
- 2.111. Only the Guideline on validation report adds a specific new requirements: "National competent authorities form a view about how the undertaking documents the results of the validation as well as the resulting conclusions and consequences from the analysis of the validation, and how this report includes a reference to the validation data set as well as the sign off from the main participants in the process". So to prepare for the use of the model, undertakings will need to put in place validation reports at each cycle of the validation process it carries out on its internal model. This would apply even after the internal model has been approved. What EIOPA Guideline adds is the important specification of the formality and of the cyclicity. A detailed Impact Assessment for this Guideline is carried out in previous pages.
- 2.112. For the other Guidelines, no alternative options were taken into consideration. In some cases, though they do not add requirements, these

Guidelines may appear generating some limited costs, due to the fact that they make clear and explicit some elements in order to help national competent authorities to form a view on - and the undertaking to prepare itself for - the validation of internal models performed by the undertaking. Nevertheless the benefits for undertakings and national competent authorities clearly overcome these costs.

Documentation

- 2.113. The aim of this group of Guidelines is to provide guidance about what national competent authorities and the undertaking need to consider, through the pre-application process, in order that national competent authorities are able to form a view on how prepared the undertaking is to fulfil documentation requirements set out in Article 125 of Solvency II.
- 2.114. Only the Guideline on user manual adds new specific requirements. A detailed Impact Assessment for this Guideline is carried out in previous pages.
- 2.115. With respect to the rest of Guidelines, only the first one (Control procedures) does not add new costs, because it provides only further guidance on the elements that national competent authorities should take into account to form their view.
- 2.116. The other Guidelines may be source of some slight additional costs, but the benefits for undertakings and national competent authorities clearly overcome these costs.
- 2.117. The Guideline stating the need that national competent authorities form a view on how the undertaking evidences, through the documentation of the internal model, detailed understanding about some aspects of the model, further specifies some of the elements that have to be taken into account during the pre-application in relation to the documentation of the model. These elements can be seen as deriving from the need that national competent authorities form a view on how prepared the undertaking is to demonstrate a detailed understanding of the internal model and in particular a detailed understanding of the theory and assumptions underlying it.
- 2.118. In respect of the Guideline stating that national competent authorities should form a view on how the undertaking includes in the documentation an overall summary of the shortcomings of the internal model consolidated in a single document, and a summary of the work done to identify the shortcomings as well as any plans to improve the model, it should be noted that national competent authorities should also form a view on how prepared the undertaking is to fulfil the use test requirements, including the need that the undertaking's board is made aware of all possible shortcomings of the internal model. A slight cost may arise from the fact that undertakings will have to consolidate in a single document all the relevant information. Nevertheless this consolidation is useful for both undertakings to contribute to the efficiency of the documentation and for national competent authorities to be able to form a

view during pre-application on how prepared the undertaking is to fulfil the internal models requirements.

- 2.119. The Guideline stating that national competent authorities should form a view on how the undertaking considers establishing more than one level of documentation commensurate with the different uses and target audiences, aims at tailoring the documentation of the model to key bodies and key personnel. This is very important since it will facilitate more effective implementation and control of the internal model as well as more effective supervisory review. This Guideline can add some costs but, at the same time, it should be noticed that putting in place different levels of documentation is not statutory and is left to the consideration of the undertaking.
- 2.120. In respect of the Guideline stating that national competent authorities should form a view on how the undertaking documents the outputs of the internal model that are relevant for satisfying requirements of Article 120 of Solvency II, some costs may arise for the undertaking from the fact that they will need to retain and analyse these outputs. Nevertheless it should be noticed that this EIOPA Guideline simply makes more explicit an element that needs to be taken into account for forming a view in relation to the use test.
- 2.121. National competent authorities will form a view on how ready the undertaking is to fulfil the documentation requirements and uses also the documentation of the model to develop an understanding by all users at all relevant levels. The request for forming a view on the undertaking's documentations, possibly with different levels of details for different audiences, acts as evidence that the undertaking is preparing to acquire this understanding. A high level of understanding of all parts involved in the internal models is beneficial for all relevant parties: for undertakings it is essential in order to develop a sound governance system; for policy holders as they will have the guarantee that the most effective choices are implemented by the undertaking to manage risks; and for national competent authorities as the review of the internal model is made easier: crucial aspects of the internal model and its understanding by the undertaking are described in detail and summarized in documents formally endorsed by this undertaking.
- 2.122. EIOPA considered also different options for each Guideline.
- 2.123. For the first Guideline of the Chapter, the alternative option was not expecting undertakings to put any control procedure for the documentation. Here, giving further guidance to ensure convergent practices was preferred, given the importance of the issue.
- 2.124. For the second Guideline, it was considered the option of not to admit in the undertaking's documentation, documentation prepared by third parties. Bearing in mind that the fact that the undertaking relies on the documentation produced by an external provider does not exempt the undertaking to fulfil the documentation requirements, it was essential to clarify that national competent authorities should also form a view on how

the undertaking demonstrates a sufficient level of understanding of the documentation provided by third parties.

- 2.125. For the Guideline on the summary of shortcomings, the alternative option was not expecting undertaking to put in place an overall summary of all shortcomings of the internal models in a single document. This option was rejected because it was considered important that the undertaking puts in place a single document presenting shortcomings of the internal model. The cost of the option embedded in the final Guideline was considered to be overcome by the benefits it brings.
- 2.126. For the Guideline on tailored documentation, an alternative option would have been to expect from the undertaking a single level of documentation. Here, it was deemed more useful for the undertaking and national competent authorities to allow the undertaking to consider different levels of documentation according to users and of audience.
- 2.127. For the Guideline related to the outputs of the model, there were two alternative options: either not treating the issue at all, or expecting the undertaking to retain the complete set of all runs of the model (not only the outputs). An intermediate solution was chosen for the Guideline, this was considered more useful and straightforward for the undertaking.
- 2.128. Finally, regarding the last Guideline of the Chapter, the alternative options were again two: either to exclude platforms from the documentation, or to expect undertakings to fully include them. An intermediate solution was found again to ensure both an effective and a proportionate approach: national competent authorities form a view on the undertaking provides sufficient information about their IT systems used in the model.

External models and data

- 2.129. The aim of this group of Guidelines is to provide guidance about what national competent authorities and the undertaking need to consider, through the pre-application process, in order that national competent authorities are able to form a view on how prepared the undertaking is to fulfil the external models and data requirements set out in Article 126 of Solvency II. The use of external models or data does not exempt undertakings to comply with internal models requirements.
- 2.130. Only some limited additional costs may arise as a consequence of the fact that EIOPA Guidelines extend for external models and external data the general requirements and other Guidelines set out for other areas for internal models and internal data, such as statistical technical standards, use test, validation standards or documentation standards. These limited costs cannot be attributed to EIOPA Guidelines in a strict sense. EIOPA simply made them explicit, taking into account that external models and data are subject to the same requirements as models and data internally developed by the undertaking as set out in Article 126 of Solvency II.
- 2.131. The Guideline clarifying how supervisory review of external models and data should be carried out and their relationship with external vendors does not introduce new requirements as this is the normal process

national competent authorities should conduct to form a view on how ready the undertaking is to fulfil the internal model requirements.

2.132.No alternative options have been taken into consideration in the Guidelines.

Functioning of Colleges

2.133.The aim of this group of Guidelines is to explain how Colleges of supervisors should function during the pre-application process for internal models for groups submitted to pre-application that would be used to calculate the consolidated group Solvency Capital Requirement or both the consolidated group Solvency Capital Requirement and the Solvency Capital Requirement of some related undertakings.

2.134.Only the Guideline related to tasks of the group supervisor and of the other involved national competent authorities is expected to add a new concrete requirement: a written work plan that the group supervisor, in consultation with the other national competent authorities involved, should establish, covering the timeline, the steps, the deliverables and the priorities of the process for the pre-application process for an internal model for groups. A detailed Impact Assessment for this Guideline is carried out in previous pages.

2.135.The rest of Guidelines may create some costs for national competent authorities within the respective college but these are normal in the process to form a view in the context of internal models for groups. For these Guidelines no alternative options have been taken into consideration.