**Submission**

The ISAP 5 Task Force of the ASC is pleased to submit this report. It documents the comments we received on the exposure draft of ISAP 5 (“ED”) and how we addressed those comments.

We would like to record our thanks to those commenters, both organizational and individual.

**Preamble**

The ED along with the amendments to the Glossary for the ED was published on the IAA website on 8 October 2015 with a comment deadline of 31 March 2016. A transmittal memo was published concurrently which requested answers to five specific questions. An MSWord template was provided to submit comments.

This report outlines the answers to our questions and other comments we received on the ED and what we did as a result. It is organized into four sections:

1. List of comments we received on the ED.
2. Detailed summary of the answers we received to our five questions and our responses.
3. Detailed summary of general comments received and our responses
4. Detailed paragraph by paragraph summary of the comments received and our responses.

This report was drafted by the ISAP 5 Task Force of the ASC and reviewed and edited by the ASC. Throughout the document “we” means the ASC.**I. List of comments we received on the ED**

We received the following comments which can be viewed in their entirety on the IAA website at

<http://www.actuaries.org/index.cfm?lang=EN&DSP=PUBLICATIONS&ACT=STANDARDS_EXPOSUREDRAFT-ISAP5>

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| --- | --- | --- |
| **Letter Number** | **Commenter** | **Date Received** |
| 1 | [Institute of Actuaries of Japan](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_IAJ_1Feb2015.pdf) | 01-Feb-16 |
| 2 | [International Association of Insurance Supervisors](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_IAIS_26Feb2016.pdf) | 26-Feb-16 |
| 3 | [Canadian Institute of Actuaries](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comments_CIA_29Feb2016.pdf) | 29-Feb-16 |
| 4 | [Casualty Actuarial Society](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_CasualtyActuarialSociety_17March2016.pdf) | 17-Mar-16 |
| 5 | [Society of Actuaries in Ireland](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_Ireland_24March2016.pdf) | 24-Mar-16 |
| 6 | [Actuarial Standards Board of Canada](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_ActStandardsBrdCda_28March2016.pdf) | 28-Mar-16 |
| 7 | [Dutch Actuarial Association](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_RDutchAA_29March2016.pdf) | 29-Mar-16 |
| 8 | Deutsche Aktuarvereinigung (Germany) - Additional comments on Glossary and ISAP | 29-Mar-16 |
| 9 | [Institute of Actuaries of Australia](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_IAAustralia_29March2016.pdf) | 30-Mar-16 |
| 10 | [Samuel Achord, FIA CERA (UK)](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_SAchord_FIACERA_30March2016.pdf) | 30-Mar-16 |
| 11 | [Institute and Faculty of Actuaries](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_IFOA_31March2016.pdf) | 31-Mar-16 |
| 12 | [Institute of Actuaries of Korea](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_IAK_31March2016.pdf) | 31-Mar-16 |
| 13 | [Actuarial Standards Board (US)](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_EDComment_ASB_31March2016.pdf) | 31-Mar-16 |
| 14 | [Institut des Actuaires France](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_IAFrance_31March2016.pdf) | 31-Mar-16 |
| 15 | [Financial Reporting Council (UK)](http://www.actuaries.org/CTTEES_ASC/ISAP5/EDComments_Received/ISAP5_Comment_FRC_31March2016.pdf) | 31-Mar-16 |

**II. Summary of the answers we received to our five questions**

We asked the following questions in the transmittal letter for the ED. Each question is shown in bold italic and followed by a summary of the responses we received. These suggestions were thoroughly considered in our redrafting.

**Q 1: Is the guidance clear and unambiguous? If not, how should it be changed?**

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| **Comment** | Nine of the fifteen commenters felt the ISAP was, in general, clear and unambiguous. |
| **Response** | No action needed. |
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| **Comment** | Two commenters suggested that a definition of “Enterprise Risk Model” be included in the ISAP. |
| **Response** | We agreed that a definition would improve clarity and we have added the definition of “Enterprise Risk Model” to the Glossary. |
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| **Comment** | One commenter suggested that there could be descriptions of a variety of methods that may be used in ERM modelling. |
| **Response** | We believe that descriptions of different modelling techniques are more appropriately left to educational material. No action was taken. |
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| **Comment** | One commenter recommended that material from the recent IAA publication *Actuarial Aspects on ERM for Insurance Companies* (January 2016) be included in the ISAP. |
| **Response** | We feel that the document mentioned is an excellent piece of educational material. ISAPs are designed to provide guidance and are not meant to be educational in nature. No action was taken. |
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| **Comment** | One commenter suggested that the ISAP should distinguish more clearly between solvency and ERM and that the definition of models covered in the Introduction does not seem the same as that described in section 1.2. |
| **Response** | We believe that solvency modelling and ERM modelling are neither mutually exclusive nor subsets of each other. There is clearly overlap. As outlined in the Statement of Intent that was approved by Council, ISAP 5 focuses on Insurer Enterprise Risk Models. As such, solvency modelling is discussed solely in this context. No action was taken.We agreed with the latter point and have introduced greater clarity and consistency within the ISAP when referencing enterprise risk models and their applications. |

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| **Comment** | Twelve of the fifteen commenters felt that, in general, the guidance is sufficient and appropriate. |
| **Response** | No action needed. |
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| **Comment** | One commenter suggested that this ISAP include material from the U.S. ASB standard ASOP 46. |
| **Response** | ASOP 46 is designed for broad applications of all ERM models. ISAP 5, as described in the SOI, is designed specifically for insurance entities. We believe no further material is needed and no action was taken. |
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| **Comment** | One commenter observed that the guidance has a strong focus on stress and scenario testing and suggested that several other techniques could be discussed. |
| **Response** | ISAPs are not the appropriate forum for an educational presentation of the variety of techniques which can be used in ERM modelling. We believe that the guidance provided in ISAP 1A is sufficient for other modelling techniques. We do not believe this is the case for stress and scenario testing and have addressed this issue in ISAP 5. No action was taken. |
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| **Comment** |  One commenter suggested that just as there is a need for ISAP 5 on ERM for insurers, there may be a need for another ISAP on solvency modelling for insurers. |
| **Response** | The Task Force referred this to the ASC to consider when soliciting ideas for further ISAPs. |

**Q2: Is the guidance sufficient and appropriate? If not, how should it be changed?**

**Q3: Is it clear how the guidance in the proposed ISAP relates to the guidance in ISAP 1 and ISAP 1A? If not, how should it be changed?**

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| **Comment** | Ten of the fifteen commenters felt that, in general, the guidance in the proposed ISAP is clear in how it relates to the guidance in ISAP 1 and ISAP 1A. |
| **Response** | No action required. |
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| **Comment** | Two commenters suggested that some guidance in ISAP 5 could also be applicable to other actuarial models as well and felt that this guidance could be placed in ISAP 1A instead. |
| **Response** | While some guidance may very well apply to other models, we believe that the guidance in ISAP 5 would not be applicable to every model and should therefore not be placed in ISAP 1A. No action was taken. |
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| **Comment** | One commenter suggested that a reference to ISAP 1A be added to Section 3.1. |
| **Response** | We agreed and the reference has been added. |
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| **Comment** | One commenter suggested that, due to the similarity of the work and its purposes, it would be desirable to have common guidance for both stress testing/scenario testing (section 2.4.) and other enterprise risk modelling techniques (section 2.1.). |
| **Response** | We agreed and, as mentioned below, we moved a modified list of these considerations formerly in 2.4.1. to a new 2.3.2. |

**Q4: Is the guidance at the right level of detail? If not, what text should be omitted because it is too detailed? In what areas do actuaries need more detailed guidance?**

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| **Comment** | Eleven of the fifteen commenters felt that, in general, the guidance was at the appropriate level of detail. |
| **Response** | No action required. |
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| **Comment** | One commenter felt that the current draft stays on a level of principles and suggested that there be more specific guidance. |
| **Response** | As has been articulated in the past, the ASC believes that ISAPs should be principles based and not prescriptive. No action was taken. |
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| **Comment** | One commenter suggested that overall the guidance was helpful. However, they felt that the list in Section 2.4.l. was too long/specific and is inconsistent with high level principles. |
| **Response** | We have chosen to remove the specific reference to “Economists” in 2.4.1.f. and have changed the last item to “f. Other subject matter experts”. As mentioned earlier, this modified list was then moved to a new 2.3.2. |

**Q5: Are there other matters that should be included in this standard? Are there some included here that should not be?**

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| **Comment** | Five of the fifteen commenters felt that no additional changes were necessary. |
| **Response** | No action required. |
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| **Comment** | One commenter suggested that the topic of validation of ERM models could also be considered in this ISAP. |
| **Response** | We point out that ISAP 1A addresses this issue. No action was taken. |
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| **Comment** | One commenter suggested that there be guidance on all the known model requirements in Solvency II. That commenter also felt that when expert judgement is expected, there should be a link to a description of common or best industry practice.  |
| **Response** | As to the first point, ISAP 5 is intended to provide guidance for all insurer ERM model work and should not focus on any one piece of regulation.As to references to “best practices”, we believe that ISAPs should provide clear guidance on appropriate practice and should not be used to provide educational material or references to common/best practice. No action was taken. |
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| **Comment** | One commenter suggested including material on “the spirit of ERM and thus the motivation of ERM models”. This commenter also noted that there is no mention of Asset Liability Modelling.  |
| **Response** | We believe that a discussion on “the spirit of ERM and thus the motivation of ERM models” is more appropriately handled by educational material. No action was taken.With regard to ALM, we recognize that this is a relevant component of ERM for insurers but this ISAP is not intended to provide an exhaustive list of applications of the models. We believe this is better handled by educational material. No action was taken. |
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| **Comment** | One commenter suggested that ISAP 5 could be improved in two areas: (1) policyholder behaviour and other difficult-to-quantify risks and (2) the importance of coherently incorporating qualitative risks into the ERM models.  |
| **Response** | We agreed that “policyholder behaviour” is an appropriate consideration and have added this item to paragraph 2.3.1.c. “Factors outside of management control such as policyholder behaviour, taxation, regulatory requirements and reserving requirements.”We believe that many “difficult-to-quantify risks” (interest rate movements, natural catastrophes, etc.) and “qualitative risks” (likely management actions, business environment, etc.) are involved in enterprise risk modelling and the approach to these risks is appropriately addressed in the current ISAP. No action was taken. |
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| **Comment** | One commenter noted that, under "Understanding of Risk and Uncertainty", there is no reference to the external environment and risks that the organisation cannot control.  |
| **Response** | We agreed that external factors are an important element of this guidance but we believe that the reference “2.1.1. Information about the financial strength, risk profile, business management and risk environment of the organization that is relevant to the assignment;” addresses this concern. No action was taken. |
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| **Comment** | One commenter felt that an assessment of whether a model is fit for purpose is fundamental to any actuarial services involving models and, while ISAP 1A may cover this concept, the commenter suggested explicit references to this concept within this ISAP to highlight its importance. |
| **Response** | A stated goal of the ISAP process is to explicitly avoid repetition/duplication of guidance. ISAP 5 presupposes compliance with ISAP 1A. While we agreed that “fit for purpose” is an important issue, we feel it is covered adequately in ISAP 1A. No action was taken. |
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| **Comment** | One commenter noted that it is important for the user to understand where risk-modelling assumptions include caution or optimism and, therefore, such provisions should be noted in the standard. |
| **Response** | We believe this is of general relevance to all actuarial services and is thus more appropriately handled in ISAP 1 and ISAP 1A. No action was taken. |

**III. Summary of general comments received and our responses**

Responses were intended both to assist the ASC and its ISAP 5 Task Force in taking a consistent approach to the comments received and to assist readers of this document in getting a thorough view of both the comments received and how they were addressed. We thoroughly considered each comment. We believe that the edits made to the ED, as detailed in section IV of this report, demonstrate this.

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| **Comment** | One commenter suggested that there is a need for further clarity in ISAP 5 regarding what is explicitly in its scope and what is out of the scope due to it being covered in other standards. Topics would include model scope, data quality, parameterization methodology, general provisions on model structure and theory, statistical quality standards and model calibration. This commenter also noted that the level of detail of the document seems mixed in that there are specific provisions for stress and scenario testing (a modelling approach) but no general provisions on various areas as noted above, and no specific provisions on stochastic modelling (another widely used modelling approach). |
| **Response** | Regarding the commenter’s first point, ISAPs are designed to provide guidance collectively and are drafted to avoid repetition. The topics such as data quality, statistical quality standards and model calibration are addressed in ISAP 1A. Other topics such as model scope, parameterization methodology and general provisions on model structure and theory are more appropriately addressed in educational material. No action was taken.Regarding the commenter’s second point, we agreed that stochastic modelling is a valuable tool that has application beyond merely enterprise risk modelling. In this context, appropriate guidance for this and other broadly applicable techniques’ governance is provided in ISAP 1A. Regarding ISAP 5, in response to other commenters’ suggestions detailed below, we have moved a modified list of considerations formerly in 2.4.1. to 2.3.2. to provide guidance for all enterprise risk modelling, not solely for stress tests and scenario tests. As suggested by the commenter, we believe this provides better balance in the ISAP between stress/scenario tests and other useful enterprise risk modelling techniques. |
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| **Comment** | One commenter felt that the ISAP is written assuming the actuary can independently choose methods and assumptions whereas the actuary may be working under the instruction of another person (who may or may not be an actuary) and who is ultimately responsible for the ERM model. The commenter was concerned that the ISAP places a responsibility on the actuary to reconcile the model in question to other models / stress tests developed by the same company, even if the actuary had no input in the design, calibration or use of the other models. |
| **Response** | This issue was also raised in the ISAP 1A Consultation Report. We believe this is an ISAP 1 issue. It is addressed in ISAP 1 1.4.3., but that subparagraph should be reviewed when ISAP 1 is next revised as that paragraph of ISAP 1 considers a team of actuaries only. No action was taken. |
| **Comment** | Two commenters felt that the current draft seems to have too much focus on stress and scenario testing. Also, it was noted that there was a lack of guidance with respect to i) testing that models are appropriate and validated and ii) requiring that the methods used in the models or their architecture are adequate. |
| **Response** | In response to these commenters’ observation, we have moved a modified list of considerations formerly in 2.4.1. to 2.3.2. to provide guidance for all enterprise risk modelling, not solely for stress tests and scenario tests. We believe this provides better balance in the ISAP between stress/scenario tests and other useful enterprise risk modelling techniques. Regarding the second observation, we point out that there is significant guidance on model validation and appropriateness provided in ISAP 1A. No action was taken. |
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| **Comment** | One commenter felt that some of the content of ISAP 5 might have been better placed in ISAP 1A “provided it does not incorporate too much expectation on the actuary working with simple models”. The commenter also suggested the Introduction could note that, although actuaries have a key role in ERM, it is beneficial for ERM teams to be multi-disciplinary to avoid one perspective dominating. In addition, this commenter suggested that ISAP 5 should focus on insurance company modelling as a whole, differentiating clearly between solvency and ERM and making clear how they are related (“For example, is one a subset of the other?”).  |
| **Response** | We believe incorporating some of the guidance from ISAP 5 into ISAP 1A would lead to precisely the problem the commenter has identified. ISAP 1A addresses all models while the guidance in ISAP 5 was developed for actuaries involved with ERM Models for Insurers. While it is true that some of this guidance may also apply to modelling other than ERM, it clearly would not be appropriate for all model applications. We feel that this guidance should remain in ISAP 5 and no action was taken.While we agreed that there is value in taking a multi-disciplinary approach to the ERM process, we do not think this observation is guidance to be included in a standard and no action was taken.We believe that solvency modelling and ERM modelling are neither mutually exclusive nor subsets of each other. There is clearly overlap. As outlined in the Statement of Intent that was approved by Council, ISAP 5 focuses on Insurer Enterprise Risk Models. As such solvency modelling is discussed solely in this context. It is not in the approved scope that we address “insurance company modelling as a whole”. We believe this is the appropriate approach and have taken no action. |
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| **Comment** | One commenter encouraged that there be strong alignment between this ISAP and ISAPs 1A and 6 (currently under development). Also they mentioned that this ISAP uses the term “organization” throughout and suggested using the term “entity”, a defined term, for greater consistency with other ISAPs. |
| **Response** | We note that the same Task Force charged with developing ISAP 5 is also in the process of creating ISAP 6 and they are very aware of the need for alignment of these ISAPs and ISAP 1A.We recognize the value of using consistent terminology and have reviewed the document and inserted “insurer” as the preferred choice where appropriate. |
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| **Comment** | One commenter suggested that the word “enterprise” is not necessary in the name or the scope of this standard as requirements could equally apply to risk modelling that is not enterprise-wide, or that models just an individual risk item (e.g. insurance risk). |
| **Response** | The exposure draft of ISAP 5 is based upon the Statement of Intent that was approved by Council. As such, the scope is precisely described as guidance for Insurer Enterprise Risk Models. While we agreed that there is much guidance included that may be applicable to other modelling applications, this ISAP is specific with respect to ERM models for insurers. No action was taken. |

**IV. Paragraph by paragraph summary of the main comments received and our responses.**

Many commenters suggested editorial changes to the ED. We have considered all such suggestions and adopted those that we felt improved clarity. Such suggestions are not detailed below.

**Preface**

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| **Comment** | One commenter suggested that the preface include the latest approved version of the wording, “This ISAP is a model standard of actuarial practice and, as such, is not binding on any actuary.”  |
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| **Response** | We agreed and the change was made. |
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**Introduction**

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| **Comment** | One commenter suggested a number of editorial clarifications.  |
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| **Response** | We reviewed the suggestions and a number of editorial changes were made. |

**Paragraph 1.1.**

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| **Comment** | Several commenters provided minor language or grammar edits.  |
| **Response** | We considered these comments and made the appropriate changes. |
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| **Comment** | One commenter suggested that a requirement of legislative and regulatory compliance be added. |
| **Response** | While ERM work at times involves regulatory work, ERM applications are much broader than this specific purpose. We believe this list is appropriate as it stands and no action was taken. |
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| **Comment** | One commenter questioned why the standard was limited to insurance entities. |
| **Response** | The ISAP 5 Statement of Intent (SOI) approved by Council has directed the ASC to develop a standard that focuses on “Insurer Enterprise Risk Models”. No action was taken. |
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| **Comment** | One commenter observed that in addition to “development and use “, the draft ED for ISAP 1A also references the activities of “selecting” and “modifying” models and suggested that the guidance would be improved if the references to the activities of the actuary were consistent between the ISAPs. |
| **Response** | We noted the validity of this comment and made changes to establish consistency between the ISAP 1A and ISAP 5 |
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| **Comment** | One commented questioned the use of the word “report”. |
| **Response**  | “Report” is hyperlinked to the definition in the ISAP Glossary and we believe it covers the use described in this ISAP. No action was taken. |

 **Paragraph 1.2.**

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| **Comment** | One commenter suggested that this ISAP should apply only to the most senior actuary in a team with clear responsibility for supporting an ERM process and not all actuaries involved in the process. |
| **Response** | We disagreed. As a key element of professionalism, standards are intended to be applicable to all actuaries involved in a process. While the degree of that involvement may vary among different actuaries (and non-actuaries), we believe that all actuaries are responsible for complying with the appropriate portions of standards which apply to their role in the provision of the actuarial services. This issue was also raised in the ISAP 1A Consultation Report. We believe this is an ISAP 1 issue. It is addressed in ISAP 1 1.4.3., but that subparagraph should be reviewed when ISAP 1 is next revised as that paragraph of ISAP 1 considers a team of actuaries only No action was taken. |
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| **Comment** | Two commenters observed that there appeared to be multiple categorizations / definitions of ERM models. |
| **Response** | We agreed that there is a need for more clarity and consistency. We have added a definition of “Enterprise Risk Model” to the Glossary and edited the text in the Introduction and Section 1 to maintain consistency among references to ERM models. |
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| **Comment** | One commenter pointed out that the definition of “actuarial services” uses the term “actuarial considerations” and this term could be interpreted in a number of ways. |
| **Response** | We believe that this is an ISAP Glossary issue that applies to all ISAPs, not just ISAP 5. We referred this issue for discussion at the ASC and no action was taken on ISAP 5. |
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| **Comment** | One commenter observed that ISAP 1A also references the activities of “selecting”, “modifying”, and “building” models and suggested that clarity would be improved if the references to the activities of the actuary were consistent between the ISAPs. |
| **Response** | We agreed and modified the text to be consistent with the proposed changes in ISAP 1A. |
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| **Comment** | One commenter suggested that the ISAP be restricted to “regulatory purposes” and that the term “enterprise” be removed as a modifier of “risk model”. |
| **Response** | The ISAP 5 Statement of Intent (SOI) approved by Council has directed the ASC to develop a standard that focuses on “Insurer Enterprise Risk Models” that will be applicable beyond merely “regulatory” purposes. No action was taken. |

**Paragraph 1.3.**

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| **Comment** | One commenter suggested that the more recent version of this paragraph be used. |
| **Response** | We agreed and the change was made. |
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| **Comment** | One commenter suggested that “and ISAP 1A” be added to the last sentence. |
| **Response** | We agreed and the change was made. |

**Paragraph 2.1.**

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| **Comment** | Two commenters suggested that an understanding of the internal business model should also be emphasized in both 2.1.1. and 2.1.3. |
| **Response** | We agreed and the phrase “business management” was added. |
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| **Comment** | Two commenters suggested that the phrase “risk management system” in 2.1.3. be replaced in the interest of clarity.  |
| **Response** | We agreed and the phrase “framework and approach” was substituted. |
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| **Comment** | One commenter suggested that the disclosure mentioned in 3.1. be made clear here. |
| **Response** | We agreed and the addition was made. |
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| **Comment** | Several commenters provided minor language or grammar edits. |
| **Response** | We considered these comments and made appropriate changes |
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| **Comment** | Two commenters suggested that 2.1.4. is contained in ISAP 1 and does not need to be repeated in ISAP 5. |
| **Response** | We agreed and 2.1.4. was eliminated. |
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| **Comment** | One commenter questioned the need in 2.1.3. to highlight any inconsistencies between 2.1.1. and 2.1.2. |
| **Response** | We believe that, if there has been an inconsistency between the stated ERM goals and the performance of the organization, there is a higher level of uncertainty around projections of management actions into the future.  Therefore, we felt that this guidance is necessary and no action was taken. |

**Paragraph 2.2.**

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| **Comment** | Two commenters suggested that this topic is covered sufficiently in ISAP 1 and should not be included here. |
| **Response** | ISAP 1, paragraph 1.5.2. refers to “the scope of the decision or the assignment to which it relates and the benefit that intended users would be expected to obtain from the [work](#work).” We believe that, in addition, the diverse risks analyzed within ERM models also deserve proportionality consideration. No action was taken. |

**Paragraph 2.3.**

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| **Comment** | Several comments provided minor language or grammar edits. |
| **Response** | We considered these comments and, where appropriate, made changes |
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| **Comment** | One commenter suggested adding “the purpose of the modelling” to the list of considerations.  |
| **Response** | While we agreed that this is relevant, we believe it is covered thoroughly under ISAP 1A, Section 2. No action was taken. |
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| **Comment** | One commenter suggested adding the phrase “or advising on the choice of” to the first sentence of 2.3.1. The commenter also suggested adding the phrase “or advised” to the last sentence of this paragraph after “The actuary’s chosen…”. |
| **Response** | We felt the first suggestion was an improvement and made the change. Regarding modifying the last sentence of 2.3.1., we felt that the wording was broad enough as it stands and no action was taken. |
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| **Comment** | One commenter suggested adding 2.3.1. “(d) Risk mitigation techniques and limitations to these techniques. For example, reinsurance and hedging.”  |
| **Response** | We felt the suggestion was an improvement and made the change. |
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| **Comment** | Five commenters suggested that 2.3.2. did not provide adequately for the recognition of anticipated future changes. |
| **Response** | We agreed and made the appropriate changes. |
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| **Comment** | One commenter suggested adding a reference to “internal policies and requirements” in the list in 2.3.1. |
| **Response** | We believe reference to “internal policies” improves the guidance and added the term. |
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| **Comment** | One commenter suggested that it should be made explicit that paragraph 2.3.2. requires actuaries to assess the validity of regulatory prescribed models like the standard formula under Solvency II or the definition of the EIOPA yield curve. |
| **Response** | We believe that this would be too specific and prescriptive for a broad ISAP on “Insurer Enterprise Risk Models”. No action was taken. |
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| **Comment** | One commenter suggested that a new subsection (2.3.3.) should be added to discuss setting assumptions under a different paradigm, namely using Bayesian networks with past data. |
| **Response** | We believe the current wording appropriately addresses the issue of working with historical data and no action was taken. |
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| **Comment** | One commenter felt that there should be explicit guidance for “qualitative” and “difficult to quantify” risks. |
| **Response** | We believe that the current wording provides guidance which also addresses these issues. No action was taken. |
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| **Comment** | One commenter suggested that any differences between the guidance provided in ISAP 5 and the specifications in Solvency II should be highlighted and explained. |
| **Response** | ISAP 5 has been drafted as guidance for “Insurer Risk Management Models” and comparisons to Solvency II or any other regulation/legislation would be beyond its scope. No action was taken. |
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| **Comment** | One commenter questioned the use of the term “policy language”. |
| **Response** | We agreed and changed “policy language” to “policy wording”. |
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| **Comment** | One commenter suggested adding to the list in 2.3.1. the phrase “d. Other relevant matters” since they felt that the list, as it appears, may be thought of as exhaustive. This commenter also suggested that “co-dependencies” should be considered in 2.3.2. |
| **Response** | We recognize that the list may be interpreted as exhaustive and, therefore, changed the wording of the lead paragraph to “the actuary should consider factors including but not limited to the following:”. We also agreed that a reference to co-dependencies would improve the guidance and added appropriate wording to the end of 2.3.3. |
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| **Comment** | One commenter felt that “reserving requirements” could be deleted from 2.3.1. “as they are a sub-set of regulatory requirements.” |
| **Response** | We believe that there are other audiences for reserving (e.g., rating agencies) beyond just regulators. No action was taken. |

**Paragraph 2.4.**

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| **Comment** | Three commenters suggested that the considerations defined in 2.4.2. could apply as well to all enterprise risk management modelling techniques, not just stress tests and scenario tests. |
| **Response** | As mentioned above in our discussion of General Comments, we have moved a modified list of considerations formerly in 2.4.1. to 2.3.2. to provide guidance for all enterprise risk modelling, not solely for stress tests and scenario tests. As suggested by the commenters, we believe this provides better balance in the ISAP between stress/scenario tests and other useful enterprise risk modelling techniques. |
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| **Comment** | One commenter suggested that 2.4.1.e. read “Requirements of law ***and, where relevant, any supervisory and regulatory requirements*”.**  |
| **Response** | The definition of “law” in the ISAP Glossary incorporates this concept. No action was taken. |
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| **Comment** | One commenter questioned whether 2.4.2. referred to all stress and scenario tests contemplated, not just the ones that were actually used to develop results. |
| **Response** | We believe that the wording and context is clear that this level of disclosure is required only for those tests that are utilized to produce results. No action was taken. |
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| **Comment** | One commenter suggested that the phrase “or advising on the construction of” be added to the first sentence. |
| **Response** | We agreed and added the phrase. |
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| **Comment** | Nine commenters observed that the sentence in 2.4.1., “The assumptions can be considered reasonable only if the impact of the stress(es) applied is significantly adverse and the occurrence of the stress(es) is plausible” is vague, may be misunderstood and is not appropriate guidance. |
| **Response** | We agreed and have deleted this sentence.  |
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| **Comment** | One commenter suggested that “stress and scenario testing is a form of risk modelling and hence that the requirements for stress testing and scenario testing should be consistent with the requirements for risk modelling” and that ISAP 1 and ISAP 1A would be sufficient. |
| **Response** | While we are committed to avoid redundancy in developing ISAPs, we believe that stress testing and scenario testing play unique and very important role in Enterprise Risk Modelling. As such, specific guidance for these techniques is appropriate and should be included in ISAP 5. No action was taken. |
| **Comment** | One commenter suggested that “the actuary should check if the model used to perform the stress test is valid for this purpose.”  |
| **Response** | We note that validation is addressed in ISAP 1A. No action was taken. |
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| **Comment** | One commented suggested that the following disclosure requirement be added to 2.4.2.: “The nature of the interactions or dependencies which have been assumed among the components of the stress test or scenario test” for the benefit of other actuaries and users of model output/documentation.  |
| **Response** | We agreed that Co-dependency is an important consideration and it has been included in 2.3.3. |

**Paragraph 2.5.**

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| **Comment** | Two commenters suggested adding a phrase for enhanced clarity in the first sentence. |
| **Response** | We agreed and added the phrase “for different purposes”. |
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| **Comment** | One commenter suggested that when external models and their outputs are used, additional care needs to be exercised to gain assurance that there is adequate and appropriate understanding of the modelling and its limitations so that outcomes can be appropriately interpreted and communicated.  |
| **Response** | We agreed that this comment is valid but point out that this issue is covered in ISAP 1A. No action was taken. |
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| **Comment** | Five commenters suggested that the term “reconciliation” in the second sentence was unclear and should be replaced. |
| **Response** | We agreed and the term “explanation” was substituted. |
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| **Comment** | One commenter suggested that a principal may or may not want the actuary to perform an assessment of the differences resulting from using multiple models undertaken. |
| **Response** | We believe that this assessment is important information to the intended user and that this is necessary guidance to an actuary providing a professional service. No action was taken. |
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| **Comment** | Two commenters suggested that in many cases (e.g. large entities) the actuary may not have access to enough information to perform an assessment of every model that is used |
| **Response** | We recognize the issue and have added the phrase, “Where practical,” to the beginning of the second sentence. |

**Paragraph 3.1.**

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| **Comment** | Two commenters suggested that the phrase “risk management system” in 2.1.3. be replaced in the interest of clarity. |
| **Response** | We agreed and changed “system” to “framework and approach” and in 2.1.3. We have also made the corresponding change in 3.1.1. |
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| **Comment** | Five commenters suggested that the multiple use of the term “reconciliation” in this section was unclear and should be replaced. |
| **Response** | We agreed and changed the term to “explanation” in each instance. |
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| **Comment** | One commenter suggested that the phrase “and ISAP 1A Section 3. Communication” be added to the first sentence. |
| **Response** | We agreed and made that change. |

**Glossary**

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| **Comment** | One commenter suggested that a definition of “Enterprise Risk Model” be added to the Glossary. |
| **Response** | We agreed and the definition has been included in the revised Glossary. |
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| **Comment** | One commenter suggested that some editorial changes be made to the definition of “Model” as proposed by the ISAP 1A Exposure Draft. |
| **Response** | We forwarded this to the ISAP 1A Task Force for their consideration. |
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| **Comment** | Two commenters suggested minor editorial changes to the definitions of “Scenario Test” and “Stress Test”. |
| **Response** | We reviewed these suggestions but believe that the current definitions are appropriate. |