

Identification and instructions		
Name of Individual:	Please indicate if your comments are personal, or represent your organization:	N/A
Name of organization		Society of Actuaries in Ireland
Disclosure of comments:	Please indicate if your comments should be treated as confidential, and if so why:	N/A
Instructions for filling in and sending the template	<p>Please follow the following instructions for filling in the template:</p> <ul style="list-style-type: none"> <li>• Do not write in the yellow shaded cells</li> <li>• Write in the white cells</li> <li>• When commenting on a specific paragraph: <ul style="list-style-type: none"> <li>o Please use a separate row for each paragraph, sub paragraph, or bullet.</li> <li>o Please include the full reference in the first column such as "Introduction 3rd paragraph 2nd bullet" or "2.6.1.b.ii"</li> <li>o Please insert/append extra rows as needed.</li> </ul> </li> </ul> <p>Please send the completed template, renamed with the organization's or individual's name, attached in Word Format, to ISAP1A.comments@actuaries.org</p>	

	Specific Questions asked by the ASC	Response
Q1.	Is the guidance clear and unambiguous? If not, how should it be changed?	<p>Section 1.1: It is not clear how all aspects of the scope and purpose are covered off in the guidance, for example, results being presented clearly and understandably for the various governance fora of the various model types it intends to cover.</p> <p>Section 1.2: A more explicit description of what "...the risks inherent in developing or using models" are considered to be would be useful.</p> <p>Section 2.1: The definition of model could be enhanced to include common actuarial models that would be in scope e.g. glm models used for pricing non-life business, reserving models, capital models, external cat models etc.</p> <p>Section 2.3: The guidance could clarify what is envisaged in "modifying an existing model". In particular, do new input data and recalibration of model parameters qualify?</p>

		<p>Section 2.4.1: requires documentation of the model “construction”. This requirement would be clearer if “construction” was omitted. The list of suggested inclusions makes sense, but the need to document “construction” is confusing.</p> <p>Section 2.4.2 &amp; 2.4.3: The need to validate “throughout the development process” creates some concern as model design is a creative and iterative process. This validation throughout could result getting caught up in control processes too early. There needs to be a period of “prototyping” which would form part of the development process but should not be subject to the same rigour of control processes i.e. the initial phases of model design may benefit from less control, with governance increasing as the model approaches “production”.</p>
Q2.	Is the guidance sufficient and appropriate? If not, how should it be changed?	<p>Section 2.2.2: The wording suggests that an Actuary should “understand” model limitations. The wording could be strengthened / made less ambiguous but this may be covered by 3.1.</p> <p>Section 2.2.4: This suggests that all models should be reviewed; will the principle of proportionality apply?</p> <p>Section 2.5.5 Is there a need to produce a “document” in all cases? Recognition should be given that for less critical models documentation can be integrated into good model design, auditability of models, comments within models, logical structuring, integrated controls etc.</p> <p>Generally, it is not clear how the principle of proportionality will be applied both in terms of the model governance and matching the complexity of the model to the intended use i.e. a model should only be as complex as it needs to be.</p>
Q3.	Is it clear how the guidance in the proposed ISAP relates to the guidance in ISAP 1? If not, how should it be changed?	No reference to where there is outsourcing/an external group and the reliance on third parties especially if these are in a separate jurisdiction. This is mentioned in ISAP1 in section 2.3 and should be referenced more explicitly in ISAP1A.
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?	
Q5.	Are there other matters that should be included in this standard on governance of models? Are there some included here that should not be?	
	<b>General Comments on the ISAP 1A Exposure Draft</b>	
	There is no mention of simplification of models in the governance. Should there be a statement regarding where and if simplification is being applied?	

	<p>Documentation mentions validation - these could be removed from sections 2.2-2.4 and placed in a section on general validation.</p> <p>Validation is only referenced in the development of the model. There should also be periodical validation - depending on size and complexity of the model.</p>
	<p>Broadly agree with the principles and concepts contained within ISAP1A. The general comments are:</p> <p>a) there could be more emphasis on proportionality. Rather than caveating each section with comments on proportionality, a stronger statement with respect to proportionality in the "Overview" section would likely suffice;</p> <p>b) the level of documentation of models should depend on who are the intended users of the model. There is far higher risk with models that are developed by actuaries and passed to others for use, compared to models that are used by the designers themselves. This should probably be an aspect of proportionality, but it would be useful to see it explicitly mentioned; and</p> <p>c) the Actuary should ensure he/she understands the model that he/she is using.</p>

<b>Comments on specific paragraphs of the ISAP 1A Exposure Draft</b>		
<b>Full paragraph reference</b>	<b>Change proposed to the paragraph (markup preferred)</b>	<b>Reason the change is needed (can be kept very brief or left blank if obvious from the change)</b>
2.1	<p>Overview  Model governance is important for all models, from simple spreadsheets to complex simulations. The level of governance should be proportionate to the risks associated with inappropriate processes used in modelling. <u><i>The Actuary in applying the requirements in the sections that follow in this ISAP, should have due consideration to the risk and purpose to which the model is being used, and proportionate responses to those requirements should be followed.</i></u>  This ISAP addresses how activities in which an actuary may be involved should be governed, rather than how these activities should be performed.</p>	<p>Document needs more emphasis on proportionality and having regard to the complexity of models and types of risk being modelled. Current interpretation could push the requirements to very simple spreadsheets with minimal risks.</p> <p>ISAP1 has wording on proportionality and materiality (paragraph 1.5.2 and 2.4) - these should be explicitly referenced in the ISAP1A.</p> <hr/> <p>"models" in section 2.1 isn't referenced to the Glossary as in other sections.</p>

2.5.4	Understand and, if appropriate, explain material differences between different runs of the model. In the case of stochastic models, be satisfied that there is an adequate control process for production runs and that a sufficient number of runs of the model are made, and understand the material differences between different runs of the model.	More clarity needed as to what "different runs" entails. Does the phrase "different runs" mean sensitivity tests on key assumptions and judgements? Or is it in relation to different step runs or updates to the model?  There should be reference to the need for sensitivity testing on key assumptions/judgements in the document.
2.5.5	Maintain adequate documentation of inputs, assumptions, expected values, intended uses, limitations, and model output.	Suggest that it is recommended to document model limitations. This would be related to intended uses, but sometimes the relationship between the two isn't always clear.  This section should be expanded to include the roles and responsibilities of the users of the model
3.1	The actuary should make any disclosures which the actuary considers to be appropriate so that the intended users are able to understand limitations and uncertainty in the results presented	"intended users" are defined as "actuary performs actuarial services to use the report". The document should also refer to actuaries developing the model or using the model without producing an actual report.

**Comments on specific definitions in the Exposure Draft of the updated Glossary**

**Note that only the proposed revisions are open for comment**

Defined Term	Change proposed to the definition (markup preferred)	Reason the change is needed (can be kept very brief or left blank if obvious from the change)