



Comments by the Canadian Institute of Actuaries on Draft Statement of Intent to issue an International Standard of Actuarial Practice on Governance of Models (ISAP [1A])

1. Do you agree an ISAP is needed on governance of models?

<input checked="" type="checkbox"/>	Yes
<input type="checkbox"/>	No

2. Do you agree that the ASC should attempt to find a graceful way of merging ISAP [1A] into ISAP 1 at an appropriate time provided that can be done without disrupting the adoption of ISAP 1 or creating other problems for member associations?

<input checked="" type="checkbox"/>	Yes
<input type="checkbox"/>	No

3. Are any of the proposed topics inappropriate for inclusion in ISAP [1A]? If so, please explain why the particular topic should not be included.

Our views are divided on one aspect: whether or not the ISAP should cover governance in the area of model design and development. The (Canadian) Actuarial Standards Board (ASB, which is independent of the CIA) will shortly be issuing an exposure draft of a proposed standard on modelling. Its earlier notice of intent (NOI) included the following excerpt regarding this issue:

The modelling standard of practice in the UK expressly limits its scope to the use of models. The exposure draft in the U.S. includes within its scope both the construction and use of models. Our initial draft aligns with the UK, since we include use only. We have done so because:

- 1. The construction of a model is not an actuarial task as such, although an actuary may properly contribute substantially to the model specification. An actuary may do the entire task of construction, but a model which is useful to actuaries may be built without actuarial involvement.*



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2. *The focus of risk is around the decision on whether a particular model is suitable to the task at hand. This remains true whether the actuary constructed the model or is completely unfamiliar with how it was constructed.*
3. *There are well-accepted practices of other organizations for developing and maintaining software, of which generally models are a subset. There is little value in duplicating those practices within our standards.*

Do you support our reasons for limiting scope to use of models? If not, what value do you see in including model construction within scope?

It's interesting to note that all commenters on the Canadian ASB's NOI agreed with the Canadian ASB's preliminary conclusion to NOT include "construction" (aka "design and development"), although there was one suggestion that went slightly beyond use (but not necessarily fully into construction). No one suggested that there was value in including model construction, and we understand the Canadian ASB will then be excluding the area of model construction in its exposure draft, as advertised.

During discussions by the CIA group designated to approve this comment document to the IAA on its proposed SOI, several participants fully and passionately agreed with the points made above by the ASB in its NOI, and added others, including:

- A key question is, "How do models relate to actuarial work?" If models are essential to our work, then modelling is appropriate content for standards of practice (SOPs). It is clear that the use of models qualifies. It is hard to imagine any meaningful work that does not involve models. The definition of the "domain of actuarial practice" essentially requires models. It seems far less clear that the development of models is our work. How does the development of models, as distinct from the use of models, fit clearly within the definition of actuarial work?
- The definition seems to imply that an actuary will choose an appropriate model for work. If no appropriate model exists, many actuaries will take on the task of developing one. However, an equally valid choice would be to commission the construction of a model. Because the development is not a necessary part of the work ever, even though it may often be done by an actuary, it does not belong in SOPs.
- We don't have standards for the governance of design and development of insurance contracts or pension plans where actuaries are arguably perceived as experts. People do not look to us to be experts on model design and development; yes, model specification is related to the work we do, but that is already covered in the "use" aspect of the proposed ISAP.

A contrary viewpoint has been expressed by some members of the approval group of this document, including the following arguments:

- Actuaries are often involved in the design and development of the models that they (or other actuaries) use. Excluding these functions from the standards seems a significant omission, which would leave the standard to deal with only some aspects of model governance.



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- The line between design/development and selection/use is not always clear. For example, a third-party vendor system might require customization (perhaps as a condition for selection), which might be performed by the vendor or by actuaries involved in the selection and/or use.
- The standard could differentiate the governance responsibilities of the actuaries in design/development depending on the approach being taken (for example, if a third-party system would be used without modification, the actuary might be required to attain satisfaction that the design and development are being properly governed, perhaps through personal inquiry or independent assurance).
- Some actuarial models designed and developed by actuaries may not be “used” by them, but are then used by non-actuaries. It would seem strange that standards would not apply to such situations where non-actuaries are relying on those models. (However, if the decision is reached to not cover design and development, this could be dealt with by a clear definition of “use”, to include as “use” situations where the actuary has made models designed for others.)
- The provisions of the draft U.S. standard, which is intended to cover design and development of models as well as selection and usage, would not appear to cause undue difficulties for developers, and its provisions appear equally applicable.
- A more comprehensive standard on model governance may enhance the confidence of regulators, employers, clients, and other stakeholders in the work of actuaries.

As a group then, we are divided, and express these conflicting points of view and the rationale for them to enrich the IAA ASC’s decision process on this point. We are also informing the (independent) Canadian ASB of this submission of ours; it may wish to comment separately.

4. What other topics should be included in ISAP [1A]?

Please explain why you wish guidance in this area and if appropriate provide an example to illustrate the issue.

While not for the ISAP itself, one suggestion is that the IAA also prepare an IAN supporting ISAP 1A, and include specific encouragement to the actuary to be actively involved in the design and development stages (where possible—i.e., this would be more difficult for third-party vendor models) in order to maximize the actuary’s ability to use the model to support his/her professional opinions.

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Type of response	<input type="checkbox"/> Personal	<input checked="" type="checkbox"/> Organization
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IMPORTANT:

Please check if the relevant check boxes are ticked appropriately and save the file renamed with the organization's or individual's name (e.g., SOI_CommentTemplate_[NAME].Doc). E-mail the file as an attachment to SOI.ISAP1A.comments@actuaries.org, with "Governance of Models" in the e-mail header.