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| 1 | Please provide your name (note that anonymous responses will not be accepted)   | <b>DELETED FOR GDPR PURPOSES</b>   |
| 2 | Are you responding as an individual or on behalf of an organisation? If so, please list:  | Responding on behalf of the IFoA GI Pricing Research Group   |
| 3 | Please provide your email address so we can validate your response is legitimate.   | <b>DELETED FOR GDPR PURPOSES</b>   |
| 4 | Do you request confidentiality of your response?  | No   |
| 5 | To what extent have the TASs been effective in supporting high quality technical actuarial work?  | We agree that the principles of TAS 100 underpin high quality actuarial work. It enshrines basic actuarial principles that are core to GI pricing analysis, and we believe that actuaries would have followed these regardless of the existence of the TAS. In that sense the effectiveness may be limited. The exception to this statement may be that TAS 100 does encourage a greater level of communication and documentation than might otherwise have happened. While this is an important aspect of the quality of actuarial work, there may be some lack of clarity about the requirements, and some difficulties with full compliance, in a GI pricing context. |
| 6 | What aspects of the TASs have caused difficulties? Please explain what those difficulties were and how you were able to overcome them.  | In certain GI pricing contexts, the documentation requirements may cause difficulties. We note the principle that documentation should be proportionate, but many pricing actuaries are working in environments where they may have to make a choice between documentation compliance and the volume (and/or quality) of analyses they can deliver. Management pressure is likely to skew towards the latter; the supposed choice above may not really be a choice. The actuaries themselves, too, may feel there is clear benefit in doing the extra analysis vs producing documentation that no-one may ever look at.  |
| 7 | [For users of technical actuarial work] Have the TASs been effective in ensuring the quality and clarity of the actuarial information you receive is reliable to any decisions that you take based on that information? | n/a  |

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| 8  | Are there any aspects of the TASs that do not help to ensure the quality of actuarial information? Please explain your response with examples of where this has been an issue.   | n/a   |
| 9  | Is TAS 100 of sufficient detail to enable you to have a clear understanding of what is required in order to comply with this TAS? Are there areas of guidance which are vital to your understanding to the TASs?   | TAS 100 does seem to be written in the context of rather formal and arm's length relationship between 'user' and 'actuary'. GI pricing actuaries often work in a collaborative way with other professionals – notably with underwriters and brokers in case pricing – and may be dealing with a continuous flow of smaller analysis exercises rather than large discrete projects. It is unclear from TAS 100 itself how it applies in this circumstance, particularly as technical actuarial work 'supporting pricing frameworks' – which should include case pricing – is in scope of TAS 200 and therefore requires a TAS 100 compliance statement. We note, though, the guidance produced by the IFoA on the application of TAS 100; this includes two specific scenario case studies along these lines, and so is helpful in understanding the requirements. |
| 10 | [For users of technical actuarial work] Are there any areas where you would welcome further standards; in particular, new areas where an increasing number of actuaries are performing technical actuarial work?   | n/a   |
| 11 | Do you foresee any issues with the TASs being reviewed and updated in a staggered approach?  | No.   |
| 12 | Are there specific considerations or factors that actuaries should take into account when making professional judgements?  | Clearly there are, but these will depend greatly on the context. Even within a GI pricing context, the considerations may be very different from one case to another. We do not see benefit in including these in TAS 100.  |
| 13 | Does TAS 100 currently give sufficient direction on the nature of professional judgement and what it involves?   | Yes.  |
| 14 | [For users of technical actuarial work] In making your decisions based on the actuarial information requested, how much reliance do you place on the professional judgement made which resulted in the actuarial information, and has there been sufficient clarity of how these judgments are arrived at? | n/a   |

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| 15 | How has TAS 100 supported you in determining whether a model is fit for purpose?   | n/a   |
| 16 | How have changes in modelling techniques in recent years impacted on your models used in technical actuarial work? What changes should be made to TAS 100 to reflect these developments?   | Data science techniques are already fairly widespread in GI pricing work. These may be less transparent and harder to document in the level of detail required by TAS 100. Some of this analysis may be more experimental or exploratory in nature, so it may be helpful to clarify whether this qualifies as 'technical actuarial work'. We would note that we are competing with non-actuaries in this space. While professionalism can be a positive differentiator for actuaries, and a benefit for the controlled and ethical use of such models, burdensome requirements that others do not have to comply with may restrict our access to such projects. |
| 17 | How has TAS 100 supported you in determining whether sufficient controls and testing is in place for the models used in technical actuarial work?  | n/a   |
| 18 | How are recent or anticipated changes in modelling techniques, or other influences, changing the nature of model governance and validation? What changes should be made to TAS 100 to reflect these?   | The emphasis in model validation in the data science and machine learning world has shifted to outcomes and predictive accuracy rather traditional approaches e.g. validating the structural assumptions of the underlying model. Sometimes this may reduce to, in effect, we don't know why it works – but we can show that it does. While this does not quite seem in the spirit of TAS 100, the existing provisions are broad enough that it is not clear any specific changes are required. Any new material that is included around model validation should be written to avoid making this approach non-compliant.  |
| 19 | [For users of technical actuarial work]<br>How are recent or anticipated changes in modelling techniques affecting the communication of a) methods and measures used in the technical actuarial work and b) significant limitations to the models? | n/a   |
| 20 | Do you consider standardising the wording of the statement of TAS compliance would lead to better clarity on the quality of the work provided? Please provide rationale for your view.   | Sample wordings for different levels of compliance might be operationally helpful, but we would recommend this is provided as supplementary guidance rather than standardisation.   |

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| 21 | As an actuary completing a work review as defined in APSX2 , or as a user of technical actuarial work, is the evidence supporting the statement of TAS compliance clear and accessible, and how important is it to have this evidence available to you? | We do not think it is important that the documentation includes a specific section on evidence to support TAS compliance; in a GI pricing context, this should be clear from reviewing the overall work since the TAS principles are core to GI pricing analysis. |
| 22 | Have there been circumstances where you have experienced issues with making a statement of compliance with TAS 100? Please can you provide examples of such.  | n/a   |
| 23 | Should ISAP 4 be adopted by the FRC? Please provide your rationale supporting your view.  | We have not yet formed a view on this.  |
| 24 | If ISAP 4 is adopted as a UK standard, are there either additions or deletions that we should consider to ensure that it best reflects UK conditions?   | n/a   |