



The Society of Actuaries in Ireland

Actuarial Standard of Practice PA-2, General Actuarial Practice

Classification

Mandatory

MEMBERS ARE REMINDED THAT THEY MUST ALWAYS COMPLY WITH THE CODE OF PROFESSIONAL CONDUCT AND THAT ACTUARIAL STANDARDS OF PRACTICE IMPOSE ADDITIONAL REQUIREMENTS UNDER SPECIFIC CIRCUMSTANCES.

Legislation or Authority

Council of the Society of Actuaries in Ireland

Application

This Actuarial Standard of Practice (*ASP*) applies to all members of the Society of Actuaries in Ireland.

Version	Effective from
1.0	1 st July 2017
1.1	1st April 2021

Definitions

Words in italics in this Actuarial Standard of Practice shall be construed in accordance with the following definitions:

Accepted Actuarial Practice: A practice or practices that is or are generally recognised within the actuarial profession as appropriate to use in performing *actuarial services* within the scope of this *ASP* or other applicable professional standards of practice.

Actuarial services: Services based upon actuarial considerations, provided to *intended users*, that may include the rendering of advice, recommendations, findings or opinions and may include part or all of a work assignment. For this purpose, services are based upon actuarial considerations if:

- the use of principles and/or techniques of actuarial science is central to the provision of the services, and
- the exercise of professional judgement is required.

Appropriate arrangements: These are not prescribed and may take one or many forms, depending upon the particular circumstances and taking into account any relevant legal duties. They might include, for example:

- the scope and extent of professional indemnity insurance (PII) applicable to the organisation's actuarial work
- the terms of the contract between the client and the *member* and/or his or her employer;

- the resources available to the *member's* employer; and/or
- the personal financial resources of the *member*.

ASP: Actuarial Standard of Practice issued by the Society of Actuaries in Ireland.

Code: The Code of Professional Conduct issued by the Society of Actuaries in Ireland (as updated from time to time).

Communication: Any statement (including oral statements) issued or made by a *member* with respect to *actuarial services*.

Entity: The subject, in whole or in part, of the *actuarial services*, including an enterprise, an insurer, a pensions or benefits plan, a social security scheme, an individual, a government department or agency, a group, etc.

Intended user: Any legal or natural person (usually including the *principal*) whom the *member* intends, at the time the *member* performs *actuarial services*, to use the *recorded communication* or other output of the *actuarial services*.

Law: Applicable acts, statutes, regulations or any other binding authority (such as accounting standards and any regulatory guidance that is effectively binding).

Member: A member of the Society of Actuaries in Ireland.

Model: A simplified representation of relationships among real world variables, entities, or events using statistical, financial, economic, mathematical, non-quantitative, or scientific concepts and equations. A model consists of three components: an information input component, which delivers data and assumptions to the model; a processing component, which transforms input into output; and a results component, which translates the output into useful business information.

Model Governance: The application of a set of procedures and an organisational structure designed so that *intended users* can place their confidence in the results of the *model*.

Model Risk: The risk that, due to deficiency in the *model* or in its use, an *intended user* of the results of the *model* will draw an incorrect conclusion from those results.

Principal: The party who engages the *member* (or the *member's* firm, as the context requires) to provide *actuarial services*. The *principal* will usually be the client or the employer of the *member*.

Professional judgement: The judgement of the *member*, based on actuarial training and experience.

Recorded communication: The *member's communication(s)* presenting some or all results of *actuarial services* to an *intended user* in any recorded form, including but not limited to paper, word processing or spreadsheet files, e-mail, website, slide presentations or audio or video recordings.

Responsible person: A *member* who is a partner, director, senior manager, or holds an equivalent senior position, within an organisation, or any *member* who is otherwise responsible for, or has material input into, determining any measures taken to compensate clients for loss caused by professional shortcomings.

Subsequent event: An event of which the *member* becomes aware after the date to which the *actuarial services* refer (e.g. the effective date of valuation of the liabilities of an insurance company or pension scheme) but before the *member's* final *communication* on the results of these *actuarial services* is delivered.

Work: All activities performed by a *member* related to *actuarial services*. It usually includes acquisition of knowledge of the circumstances of the assignment, obtaining sufficient and reliable

data, selection of assumptions and methodology, calculations and examination of the reasonableness of their result, use of other persons' work, formulation of opinion and advice, documentation, reporting and all other *communication*.

In addition:

Where the context requires, the word "should" is used to indicate that *members* must comply with a particular requirement or prohibition, unless the circumstances are such that the requirement or prohibition is inappropriate or disproportionate and non-compliance is consistent with the standards of behaviour, integrity, competence and *professional judgement* which other *members* or the public might reasonably expect of a *member*.

General

1.1. Purpose –The purpose of this *ASP* is to give *intended users* of *actuarial services* confidence that

- *Actuarial services* are carried out professionally and with due care;
- The results are relevant to their needs, are presented clearly and understandably, and are complete; and
- The assumptions and methodology (including, but not limited to, *models* and modelling techniques) used are disclosed appropriately.

1.2. Scope - Subject to the remaining provisions of this section 1.2, this *ASP* applies to all *actuarial services* performed by a *member* (regardless of whether or not such services could be performed by a person who has not completed actuarial education) unless a requirement herein is in conflict with *law* or is superseded by another *ASP* or relevant professional standard of practice or by *law*.

1.2.1. *Members* must exercise *professional judgement* to determine whether this *ASP* applies in any particular circumstances. If a *member* is unsure about whether the *ASP* applies, the *member* should consider whether it would be advisable, having regard to such factors as the type of assignment and the materiality of the matter at issue, to discuss the matter with another *member* who is suitably experienced and objective, before making a final decision in this regard.

1.2.2. Proportionality: Nothing in this *ASP* should be interpreted as requiring work to be performed that is not proportionate 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.

Members should exercise reasonable judgement in applying this *ASP*. In doing so, a *member* should have regard to:

- The spirit of the *ASP* and its intended purpose as set out in section 1.1.;
- The type of assignment;
- Appropriate constraints on time and resources; and
- Where work is performed by a team, any policies and processes established to ensure that the aggregate work is compliant with the *ASP*.

1.2.3 A *member* who is performing *actuarial services* may be acting in one of several capacities, such as an employee, management, director, external adviser, auditor or

supervisory authority of the *entity*.

- a. The application of this *ASP* is clear when an individual *member* is performing *actuarial services* on a consulting or contract basis for a client who is not affiliated with the *member*.
- b. There are at least two general cases which do not meet the criterion stated in 1.2.3 a.:
 - A *member* is performing *actuarial services* as part of a team of people (which may be a multi-disciplinary team); or
 - A *member* is performing *actuarial services* for an affiliated party (such as the *member's* employer or affiliated entities within a group under common control).
- c. When a *member* is performing *actuarial services* as part of a team of people, each *member* on the team should identify which provisions of this *ASP* are relevant to those parts of the work performed by the *member* and should comply with those provisions as appropriate – noting, however, that the requirements in some paragraphs (e.g. 2.1.1.) need not be met by every *member* on the team personally and may therefore be disregarded by a *member* if another team member has taken or will take responsibility for them.
- d. If a *member* is performing *actuarial services* for an affiliated party, the *member* should interpret this *ASP* in the context of practices that apply normally within or in relation to the affiliated party, except that, if there are substantive inconsistencies between these practices and this *ASP*, the *member* should endeavour to observe the spirit and intent of this *ASP* as fully as possible.
 - The *member* should consider the expectations of the *principal*. These expectations might suggest that it may be appropriate to omit some of the otherwise required content in the *recorded communication*. However, limiting the content of a *recorded communication* may not be appropriate if the *member* is aware or ought reasonably to be aware that the *recorded communication* or the findings in the *recorded communication* are likely to receive broad distribution.
 - If the *member* believes circumstances are such that including certain content in the *recorded communication* is not necessary or appropriate, the *member* should be prepared (e.g. if challenged by a professional actuarial body with jurisdiction over the *actuarial services*) to describe these circumstances and provide the rationale for limiting the content of the *recorded communication*.
- e. It is recognised that a *member* may act in a support role in which another person carries ultimate responsibility for the work performed. In this instance, the *member* should consider whether others (including colleagues / immediate superiors) may reasonably be expected to rely on work performed by the *member* and, if so, should apply this *ASP* to that work, with due regard to the proportionality principle set out in paragraph 1.2.2.

1.2.4 Any judgement required by this *ASP* (including implicit judgement) is intended to be the *member's professional judgement* unless otherwise stated.

1.3. Compliance – In any *recorded communication* relating to *actuarial services* that are completed

for the purposes of compliance with *law*, the *member must* explain his or her reasons for any material deviation from compliance with any obligations which, under this *ASP*, he or she “should” meet and which may reasonably be considered to be relevant to the *actuarial services*. In relation to any *recorded communication* or other *communication* relating to other *actuarial services*, the *member* should make similar disclosure unless doing so would be disproportionate or otherwise inappropriate in the context of the particular assignment.

Section 2. Appropriate Practices

2.1. Acceptance of Assignment

2.1.1. When providing *actuarial services*, the *member* should confirm with the *principal* the nature and scope of *actuarial services* to be provided, including:

- a. The role of the *principal*;
- b. Any limitations or constraints on the *member*;
- c. Any requirements that the *member* is required to satisfy;
- d. Identification of the schedule of *work* and (as relevant to the circumstances, including whether the *member* is engaged rather than employed by the *principal*) the expected cost and/or the resources needed (especially if they are substantial); and
- e. The information needed to be communicated to and by the *member*, especially if it is sensitive or confidential.

2.1.2. In accepting an assignment for *actuarial services*, the *member must*:

- a. Be satisfied that the assignment can be performed in accordance with the *Code*, including the provisions of the *Code* relating to Competence and Care; and
- b. Be satisfied that he or she will have the time, resources, access to relevant employees and other relevant parties, access to documentation and information, and the right to communicate information, as may be necessary for the *work* (unless exceptional circumstances apply, in which case the *member must* disclose any constraints and their consequences in his or her *recorded communication*).

2.2. Knowledge of Relevant Circumstances – The *member* should have or obtain sufficient knowledge and understanding of the data and information available, including as appropriate the relevant history, processes, nature of the business operations, *law*, and business environment of the *entity*, to be appropriately prepared to perform the *actuarial services* required by the assignment.

2.3. Reliance on Others – Subject always to any requirements of *law* that dictate otherwise¹: The *member* may use information prepared by another party, such as data, relevant contracts, insurance contract or pension plan provisions, opinions of other professionals, projections and supporting analyses. The *member* may select the party and information on which to rely, or may be given the information by the *principal*. The *member* may take responsibility for such information, or the *member* may state that reliance has been placed upon the source of this information and disclaim responsibility.

2.3.1. If the *member* selects the party on whom to rely, the *member* should consider the

¹ For the avoidance of doubt: this proviso applies to all of paragraph 2.3., i.e. including sub-paragraphs 2.3.1. – 2.3.4.

following:

- a. The other party's qualifications;
- b. The other party's competence, integrity and objectivity;
- c. The other party's awareness of how the information is expected to be used;
- d. Discussions and correspondence between the *member* and the other party regarding any facts known to the *member* that are likely to have a material effect upon the information used; and
- e. The need to review the other party's supporting documentation.

2.3.2. If the *member* uses information prepared by another party without disclaiming responsibility for that information, the *member*:

- a. Should, where relevant, determine that the use of that information conforms to *accepted actuarial practice* in the jurisdiction(s) of the *member's* services;
- b. Should establish appropriate procedures for the management and review of the information that the *member* intends to use; and
- c. Is not required to disclose the source of the information.

2.3.3. If the *member* states reliance on the information prepared by another party and disclaims responsibility for it, the *member* should:

- a. Disclose that fact (including identifying the other party) in any *recorded communication* or other appropriate *communication*;
- b. Disclose the nature and extent of such reliance;
- c. Examine the information for evident shortcomings;
- d. When practicable, review the information for reasonableness and consistency; and
- e. Report whether and if so how the *member* took steps to determine whether it was appropriate to rely on the information.

2.3.4. If the information was prepared by the other party under a different jurisdiction, the *member* should consider any differences in the *law* or *accepted actuarial practice* between the two jurisdictions and how that might affect the *member's* use of the information.

2.4. Materiality – In case of omissions, understatements, or overstatements, the *member* should assess whether or not the effect is material. The threshold of materiality under which the *work* is being conducted should be determined by the *member* unless it is imposed by another party such as an auditor or the *principal*. When determining the threshold of materiality, the *member* should:

2.4.1. Assess materiality from the point of view of the *intended users*, recognising the purpose of the *actuarial services*; thus, an omission, understatement, or overstatement is material if the *member* expects it to affect significantly either the *intended user's* decision-making or the *intended user's* reasonable expectations;

2.4.2. Consider the *actuarial services* and the *entity* that is the subject of those *actuarial services*; and

2.4.3. Consult with the *principal* if necessary.

2.5. Data Quality

- 2.5.1. Sufficient and Reliable Data – The *member* should consider whether sufficient and reliable data are available to perform the *actuarial services*. Data are sufficient if they include all of the appropriate information needed for the *work* or if any gaps in that information are insignificant. Data are reliable if that information is materially accurate.
- 2.5.2. Validation – The *member* should take reasonable steps to review the consistency, completeness and accuracy of the data used. These might include:
- a. Undertaking reconciliations against audited financial statements, trial balances, or other relevant records, if these are available;
 - b. Testing the data for reasonableness against external or independent data;
 - c. Testing the data for internal consistency; and
 - d. Comparing the data to that for a prior period or periods.

The *member* should describe this review in the *recorded communication*.

- 2.5.3. Sources of Data for Entity-Specific Assumptions - To the extent possible and appropriate when setting entity-specific assumptions, the *member* should consider using data specific to the *entity* for which the assumptions are being made. Where such data are not available, relevant, or credible, the *member* should consider industry data, data from other comparable sources, population data, or other published data, adjusted as appropriate. The data used, and any material adjustments made, should be described, in the *recorded communication*.
- 2.5.4. Data Modification - The *member* should disclose any modification of data before its use (such as interpolation, extrapolation, adjustment, or discarding of outliers) in the *recorded communication*.
- 2.5.5. Data Deficiencies – The *member* should consider the possible effect of any data deficiencies (such as inadequacy, inconsistency, incompleteness, inaccuracy, and unreasonableness) on the results of the *work*. If such deficiencies in the data are not likely to materially affect the results, then the deficiencies need not be considered further. If the deficiencies are likely to materially affect the results and the *member* cannot find a satisfactory way to resolve the deficiencies, then the *member* should consider whether to:
- a. Decline to undertake or continue to perform the *actuarial services*;
 - b. Work with the *principal* to modify the *actuarial services* or obtain appropriate additional data; or
 - c. Subject to compliance with the *Code*, perform the *actuarial services* as well as possible and disclose the data deficiencies in the *recorded communication* (including an indication of the potential impact of those data deficiencies).

2.6. Assumptions and Methodology

- 2.6.1. The assumptions and methodology may be
- a. Set by the *member* (2.7);
 - b. Prescribed by the *principal* or another party (2.8); or
 - c. Mandated by *law* (2.9).
- 2.6.2. Where the *recorded communication* is silent about who set an assumption or methodology, the *member* who authored the *recorded communication* will be

assumed to have taken responsibility for such assumption or methodology.

2.7. Assumptions and Methodology Set by Member – Where the *member* sets the assumptions and methodology, or the *principal* or another party sets an assumption or methodology that the *member* is willing to support:

- 2.7.1. Selection of Assumptions and Methodology - The *member* should select the assumptions and methodology that are appropriate for the *work*. The *member* should consider the needs of the *intended users* and the purpose of the *actuarial services*. In selecting assumptions and methodology, the *member* should consider the circumstances of the *entity* and the assignment, as well as relevant industry and professional practices. The *member* should consider to what extent it is appropriate to adjust assumptions or methodology to compensate for known deficiencies in the available data. The *member* should consider to what extent it is appropriate to use assumptions or methodology that have a known significant bias to underestimation or overestimation of the result.
- 2.7.2. Appropriateness of Assumptions – The *member* should consider the appropriateness of the assumptions underlying each component of the methodology used. Assumptions generally involve significant *professional judgement* as to the appropriateness of the methodology used and the parameters underlying the application of such methodology. Assumptions may (if permitted in the circumstances) be implicit or explicit and may involve interpreting past data or projecting future trends.
- 2.7.3. Margins for Adverse Deviations - The *member* should consider to what extent it is appropriate to adjust the assumptions or methodology with margins for adverse deviations in order to allow for uncertainty in the underlying data, assumptions, or methodology, having regard *inter alia* to any requirements under *law* (if applicable) and to the purpose(s) for which the *actuarial services* are performed. The *member* should disclose any incorporation of margins for adverse deviations in assumptions or methodology. Where such margins are implicit, the *member* should disclose at least the existence of margins and their broad effect.
- 2.7.4. Discontinuities - The *member* should consider the effect of any discontinuities in experience on assumptions or methodology. Discontinuities could result from:
 - a. Internal circumstances regarding the *entity* such as changes in an insurer's claims processing or changes in the mix of business; or
 - b. External circumstances impacting the *entity* such as changes in the legal, economic, legislative, regulatory, supervisory, demographic, technological and social environments.
- 2.7.5. Individual Assumptions and Aggregate Assumptions – The *member* should assess whether an assumption set is reasonable in the aggregate. While assumptions might be justifiable individually, it is possible that prudence or optimism in multiple assumptions will result in an aggregate assumption set that is no longer valid. If not valid, the *member* should make appropriate adjustments to achieve a reasonable assumption set and final result.
- 2.7.6. Internal Consistency of Assumptions – The *member* should determine if the assumptions used for different components of the *work* are materially consistent, and that any significant interdependencies are modelled appropriately. The *member* should disclose any material inconsistency in the *recorded communication*.
- 2.7.7. Alternative Assumptions and Sensitivity Testing – The *member* should consider and

address the sensitivity of the methodology to the effect of variations in key assumptions, when appropriate. In determining whether sensitivity has been appropriately addressed, the *member* should take into account the purpose of the *actuarial services* and whether the results of the sensitivity tests reflect a reasonable range of variation in the key assumptions, consistent with that purpose.

2.8. Assumptions and Methodology Prescribed – Where the assumptions or methodology are prescribed by the *principal* or another party:

2.8.1. If the *member* is willing to support the prescribed assumption or methodology (following paragraph 2.7 as applicable), the *member* may (but is not obliged to) disclose the party who prescribed the assumption or methodology and the *member's* support.

2.8.2. If the *member* is unwilling to support the prescribed assumption or methodology because:

- a. It significantly conflicts with what would be appropriate for the purpose of the *actuarial services*; or
- b. The *member* has been unable to judge the appropriateness of the prescribed assumption or methodology without performing a substantial amount of additional work beyond the scope of the assignment, or the *member* was not qualified to judge the appropriateness of the assumption;

then the *member* should disclose in any report that fact, the party who prescribed the assumption or methodology, and the reason why this party, rather than the *member*, set the assumption or methodology.

2.8.3. When the *principal* requests an additional calculation using an assumption set which the *member* does not judge to be reasonable for the purpose of the *actuarial services*, the *member* may provide the *principal* with the results based on such assumptions. In his or her *recorded communication*, the *member* should state the source of those assumptions and the *member's* opinion of their appropriateness and should further state that, if the results of the *work* are communicated to any party other than the *principal*, this information should be included.

2.9. Assumptions and Methodology Mandated by Law – When an assumption or methodology is mandated by *law*, the *member* should disclose in the *recorded communication* that the assumption or methodology was mandated by *law* and that the *recorded communication* should not be used for other purposes where the assumptions and methodology used are not appropriate (unless appropriately adjusted).

2.10. Model Governance

For the purpose of this paragraph and subparagraphs i and j in paragraph 3.2.2. “using” includes selecting, developing, modifying, and running *models*.

This paragraph applies to all *models* used when performing *actuarial services* which support decision making. It provides guidance to *members* on appropriate *model governance* to manage the risks inherent in using a *model*. *Model governance* is important for all *models*, from those using simple spreadsheets to those including complex simulations. The level of governance should be proportionate to the risk to the *intended users* as a result of an incorrect conclusion being drawn from the results of the *model*.

The *member* involved in using *models* should:

- 2.10.1. Be satisfied that the *model* risks have been identified, assessed, and that there are appropriate actions to mitigate these risks such as adequate *model* validation, documentation, and process controls.
- 2.10.2. Be satisfied that an appropriate validation has taken place. The *model* validation includes assessments that:
- a) The *model* reasonably fits its intended purpose. Items that the *member* should consider, if applicable, include the availability, granularity, and quality of data and inputs required by the *models*, the appropriateness of the relationships recognized, and the *model's* ability to generate an appropriate range of results around expected values;
 - b) The model meets its specifications; and
 - c) The full or partial results of the model can be reproduced or any differences can be explained.

The *model* validation should be performed by individual(s) who did not develop the *model*, unless to do so imposes a burden that is disproportionate to the *model* risk.

- 2.10.3. Understand the *model*, the conditions under which it is appropriate for the *model* to be used including any limitations of the *model* for the intended use, the context in which the *model* will be used, how *model* inputs will be provided, and how the *member* expects the results of the *model* will be used. The *member* should disclose relevant limitations or uncertainties and their broad implications in any report.
- 2.10.4. Be satisfied that there is adequate documentation of the *model* design, construction, and operation and of the conditions under which it is appropriate to use the *model*, including any limitations of the *model*. This documentation should include, where appropriate, scope, purpose, methodology, statistical quality, calibration, and fitness for intended purpose, and reflect changes to the *model* (if any) made by the *member*.
- 2.10.5. Be satisfied that the *model* is subject to appropriate controls. This should typically include a change control process that:
- a) Avoids unauthorized changes to the *model*;
 - b) Documents any changes made and any material impact on the *model*; and
 - c) Allows any changes to be reversed.
- 2.10.6. When the results or output of a *model* run are to be used:
- a) Be satisfied that the conditions to use the *model* are met;
 - b) Be satisfied that there are appropriate controls on inputs and outputs of the *model*;
 - c) Consider whether the *model* validation described in paragraph 2.10.2. should be performed in whole or in part;
 - d) Understand, and where appropriate explain, material differences between different runs of the *model*, and be satisfied that there is an adequate control process for production runs. In the case of stochastic *models*, be satisfied that a sufficient number of runs of the *model* are made and understand the significant differences between different runs of the *model*;

- e) Understand any management actions or responses assumed within the *model*. The *member* should disclose such management actions or responses assumed and their broad implications in any report; and
- f) Document, where appropriate, limitations, inputs, key assumptions, intended uses, and *model* output.

2.11. Process Management

- 2.11.1. Process Controls – The *member* should consider to what extent, if any, the procedures used to carry out the *work* should be controlled, and if so, how.
- 2.11.2. Reasonableness Checks – The *member* should review the results produced by the selected assumptions and methodology for overall reasonableness.

2.12. Quality Assurance

The *member* should ensure that processes are implemented to ensure that the *work* is of appropriate quality.

- 2.11.1 In deciding what quality assurance processes are appropriate and proportionate, whether different processes are appropriate for different elements of the *work* and when the processes should be carried out, the *member* should have regard to the relevant circumstances, including:
 - a. The degree of difficulty of the various elements of the *work* and its overall complexity;
 - b. The purpose of the *work* and the extent (if any) to which the *intended users* may reasonably be expected to effectively review and challenge it;
 - c. The significance of the *work* to the *intended users*;
 - d. The extent to which *professional judgement* and/or analysis is required in the *work*;
 - e. Whether the way in which the *work* is carried out makes it vulnerable to errors;
 - f. Whether there are legislative or regulatory requirements for the *work* to be peer reviewed; and
 - g. The desirability of assuring public confidence in the quality of the *work*.

This list is not necessarily exhaustive.

- 2.11.2 Where a second person is involved in reviewing the *work*, whether as an independent reviewer or otherwise, the *member* should take steps to ensure that there is clarity regarding each party's role and responsibilities and that the other person may reasonably be considered to have the competence and capacity to perform the review. Likewise where the review is performed by several people.
- 2.11.3 The *member* should ensure that the completion of quality assurance processes is suitably documented.

2.13. Treatment of Subsequent Events – The *member* should consider any *subsequent event* that has the potential of materially changing the results of the *actuarial services* if the event had been reflected in the *work*, and should disclose such an event in the *member's communication*.

2.14. Retention of Documentation

- 2.14.1. The *member* should retain, for a reasonable period of time, sufficient documentation

for purposes such as:

- a. Peer review, regulatory review, and audit;
 - b. Compliance with *law*; and
 - c. Assumption of any recurring assignment by another person.
- 2.14.2. Documentation is sufficient when it contains enough detail for another *member* qualified in the same practice area to understand the *work* and assess the judgements made.
- 2.14.3. Nothing in this *ASP* is intended to give any person access to material beyond the access that they are otherwise authorised to have.

Section 3. Communication

3.1. General Principles – Any *communication* by a *member* should be appropriate to the particular circumstances and take the skills, understanding, levels of relevant technical expertise and needs of the *intended user* into consideration, with a view to facilitating the *intended user* in understanding the implications of the *communication*.

- 3.1.1. Form and Content - The *member* should determine the form, structure, style, level of detail and content of each *communication*, such that the *communication* is appropriate to the particular circumstances, taking into account the *intended users*.
- 3.1.2. Clarity – The *member* should word each *communication* clearly and use language appropriate to the particular circumstances, taking into account the *intended users*.
- 3.1.3. Timing of Communication – The *member* should issue each *communication* within a reasonable time period. The timing of the *communication* should reflect any arrangements that have been made with the *principal*. The *member* should consider the needs of the *intended users* in setting the timing.
- 3.1.4. Identification of the Member - A *communication* must clearly identify the issuing *member*. When two or more *members* jointly issue a *communication*, at least some of which is actuarial in nature, the *communication* must identify all responsible *members*, unless the *members* judge it inappropriate to do so. The name of an organisation with which each *member* is affiliated also may be included in the *communication*, but the *member's* responsibilities are not affected by such identification. Unless the *member* judges it inappropriate, any *communication* must also indicate to what extent and how supplementary information and explanation (including access to any supporting information which is necessary to understand the results) can be obtained from the *member* or another party.

3.2. Recorded Communication – The *member* should complete a *recorded communication* unless any *intended users* will otherwise be adequately informed about the results of *actuarial services*. For material assignments, for which the results of actuarial services have significant consequences, the *member* should present all information with sufficient detail that another *member* qualified in the same practice area could make an objective appraisal of the reasonableness of the *member's work*.

- 3.2.1. Content - In the *recorded communication*, the *member* should include, if applicable:
 - a. The scope and intended use of the *recorded communication*;
 - b. The results of the *actuarial services*, including the potential variability of these results;
 - c. The methodology, assumptions, and data used;

- d. Any restrictions on distribution;
 - e. The date of the *recorded communication*; and
 - f. Information on the authorship of the *recorded communication*.
- 3.2.2. Disclosures - In the *recorded communication*, the *member* issuing the *recorded communication* should disclose, if applicable:
- a. Any material deviation from the requirements of this *ASP* (1.3);
 - b. Any reliance on information prepared by another party for which the *member* disclaims responsibility (2.3.3);
 - c. Any material omissions, understatements, or overstatements (2.4)
 - d. Any data modification, validation, adjustment and deficiencies (2.5);
 - e. The *member's* assessment of the uncertainty inherent in the information used by the *member* (2.5.5.c);
 - f. Any margins for adverse deviations in assumptions or methodology (2.7.3);
 - g. Any material inconsistency in the assumptions used (2.7.6);
 - h. Where the *recorded communication* contains the results of an additional calculation using an assumption set requested by the *principal* which the *member* does not judge to be reasonable for the purpose of the assignment (2.8.3);
 - i. Assumptions and methodology that have been prescribed by another party which the *member* does not support (2.8);
 - j. Assumptions and methodology that are mandated by *law* (2.9);
 - k. The limitations, and uncertainties, of any model used for the work, and their broad implications (2.10.3.);
 - l. The management actions or responses assumed in any model used for the work, and their implications (2.10.6.e.); and
 - m. Any relevant and material *subsequent event* (2.13).
- 3.2.3. Authorship - The *member* issuing the *recorded communication* should include in the *recorded communication*:
- a. The *member's* name;
 - b. If applicable, the name of the organisation on behalf of which the *member* is issuing the *recorded communication*, and the position held by the *member*;
 - c. The capacity in which the *member* serves;
 - d. The *member's* qualifications;
 - e. The code(s) of professional conduct and actuarial standards under which the *work* was performed, if there is any possible ambiguity; and
 - f. If applicable, attestations and reliances.
- 3.2.4. Form - A *recorded communication* may comprise one or several document(s) that may exist in several different formats. Where a *recorded communication* comprises multiple documents, the *member* should communicate to all *intended users* which documents comprise the *recorded communication*. The *member* should ensure that

recorded communication components (especially those in electronic media) are such that they can be reliably reproduced for a reasonable period of time.

- 3.2.5. Constraints - The content of a *recorded communication* may be constrained by circumstances such as legal, legislative, regulatory or supervisory proceedings or requirements. Constraints could also include other standards such as financial reporting standards or an *entity's* accounting policy. The *member* should follow the requirements of this *ASP* to the extent reasonably possible within such constraints.

Section 4. Compensation for professional shortcomings

- 4.1 A *member* who is a *responsible person* where *actuarial services* are provided to external clients must consider the potential for those clients to suffer reasonably foreseeable loss, whether direct or indirect, caused by negligence, breach of duty of care or equivalent legal liability in relation to the external *actuarial work* provided and ensure that *appropriate arrangements* are in place in relation to compensation for such loss.
- 4.2 A *member* who is a *responsible person* where *actuarial services* are provided to external clients must ensure that the *member* is in a position to justify the *appropriate arrangements* in place in relation to 4.1, if reasonably called upon to do so to.

Explanatory note Actuarial Standard of Practice PA-2, version 1.1

This Explanatory Note does not form part of the *ASP*.

Version 1.1, which replaces Version 1.0, introduces requirements concerning Compensation for Professional Shortcomings (in Section 4) and requirements concerning Models (in Section 2.10). It applies from April 1st 2021