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EUROPEAN ACTUARIAL NOTE x (EAN x)

ACTUARIAL FUNCTION FOR IORP II

Approved as educational material

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PREFACE

A European Actuarial Note (EAN) is an educational document on an actuarial subject that has been adopted by the Actuarial Association of Europe (AAE) in order to advance the understanding of the subject by readers of the EAN, including actuaries and others, who use or rely upon the work of actuaries. It is not a European Standard of Actuarial Practice (ESAP) and is not intended to convey in any manner that it is authoritative. EANs may be issued

a) To assist actuaries in complying with an ESAP, for example by offering practical examples of ways in which actuaries might implement an ESAP in the course of their work, or
b) To provide non-binding guidance on an actuarial topic for which the AAE has not developed an ESAP.

Because an EAN is not intended to be authoritative, its language will be chosen carefully. It will not contain words such as “should”. Rather, its style will be descriptive or will convey meaning by the use of examples of actual practice, without suggesting that these examples are comprehensive.

EXECUTIVE SUMMARY

This EAN is designed to provide non-binding guidance to actuaries who are writing reports for the actuarial function under the IORP II Directive.

There are five sections as follows:

1. General
2. Technical provisions
3. Underwriting policy
4. Insurance arrangements
5. Risk management

Section 1 outlines the purpose of the EAN in more detail and provides some general points that the actuary may wish to consider when drafting the report. Section 2 sets out the requirements of the IORP II Directive regarding technical provisions and provides items to consider regarding the calculations, methodology, data, assumptions and results.

The IORP II Directive requires the actuarial function to express an opinion on the underwriting policy and insurance arrangements where applicable. Sections 3 and 4 provide some points for the actuary to consider in this regard. The IORP II Directive also requires the actuarial function to contribute to the risk management system and section 5 provides some points for the actuary to consider on risk management. The appendix includes some definitions used in the EAN.

SECTION 1. GENERAL

1.1. Purpose

1.1.1 This EAN provides non-binding guidance to **actuaries** when performing the **Actuarial Function (AF)** in connection with Article 27 (1) of the **IORP II Directive**.

1.1.2 The holder of the **AF** may be asked to produce a written report, hereinafter called the **actuarial function report (AFR)**, regarding the work he has undertaken. It may be useful for the actuary to consider how often an **AFR** is required taking into account how often the calculations take place, local legislative requirements and the format for documenting the contribution to risk management.

Commented [JMKvS1]: Note that throughout this EAN "AF"is frequently used for "the actuary who holds the AF", so I changed "actuary" into "AF" in 1.2.1 and 5.2 for consistency reasons

1.2. Actuarial Function Report for IORP

1.2.1 In performing the **actuarial services**, the ~~actuary~~ AF will need to consider ~~his~~ its work in light of the following principles:

- Principle 1: Comply with the **IORP II Directive** and relevant law and with ESAP1 which covers general actuarial practice.
- Principle 2: Carry out work which is proportionate to the nature, scale and complexity of the underlying risks of the **IORP** (Principle of Proportionality).
- Principle 3: Ensure consistency with the code of professional conduct of the actuarial profession and with any applicable general actuarial standards.

Commented [2]: ESAP 3 is not binding the actuary unless his/her home association has adopted it. In this connection ("IORP II", "law") it can be interpreted to be binding. Remove or move into Principle 3 with softening wording

1.2.2 This document uses expressions whose precise meaning is defined in the appendix. Words and expressions which are included in the appendix are shown in **bold** elsewhere in the document. Headings are shown in bold whether or not they contain defined terms.

1.2.3 The form, structure, style, level of detail and content will need to be considered taking into account the **intended users**. The **AFR** can summarise all major tasks that have been undertaken by the **AF** and their results. If the **AFR** consists of several component reports focusing on specific content which may be provided to the **Administrative, Management or Supervisory Body** (**AMSB)** separately and at different points in time, reference can be made to this in the **AFR**.

1.2.4 The **AF** may wish to outline any actuarial standards that applied to the work that has been carried out and whether the work complies with those actuarial standards.

1.2.5 The **AFR** can identify the individuals responsible for its preparation and the person taking overall responsibility for its production, if applicable. The **AFR** can include information identifying relevant **conflicts of interest** and describing how they have been managed including any potential conflicts of interest between the ~~individual undertaking~~Sponsoring Undertaking and any group of which it is a part.

Commented [JMKvS3]: Some missing words here. I have added "conflicts of interest" to align with ESAP2 text.

1.2.6 Consideration might be given to including sufficient information, explanation and discussion about each area covered so as to enable the **intended user** to judge its implications. The **AFR** could also identify any deficiencies and give recommendations as to how such deficiencies could be remedied having regard to **materiality** and proportionality.

1.2.7 The key **data** used to reach the opinions expressed can be summarised. Attention could be drawn to any **material** areas of uncertainty and deficiency and their sources and any adjustments

that have been made, and also to any **material professional judgement** made in the assessments by the **AF**. This is especially important if the **AMSB** is taking action based on that key **data**.
1.2.8 The **AF** may wish to discuss conclusions and recommendations with the **AMSB** on finalising the **AFR**. The **AF** could document any relevant aspect that arises after the signing of the **AFR**. After submission of an **AFR** to the **AMSB**, the **AF** could seek feedback from the **AMSB** on the contents of the **AFR** and have regard to that feedback when preparing future reports.

1.2.9 Consideration might be given to documenting promptly the details of what recommendations in the **AFR** have been accepted and rejected and need to be summarised in the next **AFR**. Progress towards implementation could also be documented and significant implications outlined.

SECTION 2. TECHNICAL PROVISIONS

2.1 Article 27 of the **IORP II directive** states "...to provide for an effective **AF** to:

(a) coordinate and oversee the calculation of **technical provisions**
(b) assess the appropriateness of the methodologies and underlying **models** used in the calculation of **technical provisions** and the assumptions made for this purpose
(c) assess the sufficiency and quality of the **data** used in the calculation of **technical provisions**
(d) compare the assumptions underlying the calculation of the **technical provisions** with the experience
(e) inform the **AMSB** of the **IORP** of the reliability and adequacy of the calculation of **technical provisions**."

2.2 The **AFR** could include an assessment of the extent to which the **Technical Provisions** have been calculated in accordance with local regulations and advise if any changes are necessary in order to achieve compliance.

2.3 The **AF** could consider the objectives of the **IORP** and the purpose of the **Technical Provisions** in meeting these objectives. This may include consideration of the extent to which the **IORP** is intended to provide guaranteed benefits to members, or alternatively provide target benefits that can be adjusted up or down as necessary. In this regard, the **Technical Provisions** may determine the ability of the **IORP** to pay a target level of benefits to members. Alternatively, the **Technical Provisions** may be required to protect member benefits in the event of the **Sponsoring Undertaking** not being able to support the **IORP**. The **AF** could consider the suitability of the **Technical Provisions** to deliver the objectives of the **IORP**.

2.4 The **AF** could consider setting out the sources and degree of uncertainty in the estimates made in the calculation of the **Technical Provisions**. The **AFR** could explain the potential sources of uncertainty and, where appropriate, illustrate uncertainty by reference to possible scenarios and remedies if possible.

2.5 The **AFR** can include the factors, including risk drivers and assumptions, which have a **material** impact on the amount of **Technical Provisions**. Attention might also be drawn to any **material** judgements made in the calculation of **Technical Provisions**.

2.6 A broad overview of the overall process employed in the calculation of the **Technical Provisions** might be included in the **AFR**. The **AF** may want to express an opinion on the adequacy and reliability of the **T~~t~~echnical P~~p~~rovisions**. There is no explicit obligation to express an opinion under IORP II. The **AF** may wish to outline its conclusions regarding the adequacy and reliability of the **Technical Provisions** to achieve the objectives of the **IORP**. The conclusions could include any concerns the **AF** has in this regard and identify **material** shortcomings or deficiencies, with recommendations as to how these could be remedied.

2.7 It may be useful to set out in the **AFR** the opening and closing **Technical Provisions**. A commentary on the main items of movement in the **Technical Provisions** might also be considered.

2.8 In considering the adequacy and reliability of **T~~t~~echnical P~~p~~rovisions** in meeting the objectives of the **IORP**, the **AF** may also wish to consider the likely development of the **T~~t~~echnical P~~p~~rovisions** in the future, having regard to different economic scenarios and considering also the possibility that the **Sponsoring Undertaking** may not always be able to support the **IORP**.

2.9 The **AFR** could include an overview of the controls undertaken by the **AF** in assessing the **data** used in the calculation of **Technical Provisions** and an explanation of how the **AF** is comfortable that the **data** is appropriate, accurate, reliable and complete. The **AFR** could highlight the importance of storing the **data** in a secure environment so that it is readily available for future reference.

2.10 It may be helpful to identify any material uncertainties or limitations in the **data** and outline the approach taken to these in calculating the **Technical Provisions**. Limitations might include, but are not restricted to, the **data**'s fitness for purpose, consistency over time, timeliness, information technology systems, availability of individual **data** and of historical **data**.

2.11 An overview of the different benefit structures covered by the **Technical Provisions**, the split of **data** into meaningful groups and how this split has been assessed for appropriateness in relation to the underlying risks of the ~~undertaking~~ IORP could be included in the AFR.

2.12 Consideration can be given to the relevant information provided by financial markets and generally available and specific **data** on demographic risks and explain how it is integrated into the assessment of the **Technical Provisions**.

2.13 An overview could be provided of the appropriateness of the methods and **models** used in the calculation of the **Technical Provisions** with regard to the main drivers of risk, the categories of membership and the way in which the **IORP** is being managed.

2.14 Attention could be drawn to any unusual or non-standard method which has been used to calculate **Technical Provisions**, including a description of the rationale for the choice of method and if no unusual methods have been used, noting that only standard methods have been used.

2.15 Where the insufficiency of the **data** has prevented the application of a reliable actuarial method, the **AFR** could include an overview of the method(s) used to calculate **Technical Provisions.** The **AFR** could also include an assessment of the appropriateness of any approximations used in the calculations of **Technical Provisions**.

2.16 The **AFR** could include an assessment of the appropriateness of the methods and **model**s used in the allowance for options and guarantees included in the benefit structure. Consideration might be given to the options and guarantees underlying the insurance ~~contracts~~arrangements.

Commented [JMKvS4]: I had to read this a couple of time before understanding it. Better split the two messages into two sentences: "Attention could be … choice of method. If only standard methods have been used, the **AF** could consider to note this."

Commented [JMKvS5]: I have changed this from "insurance contracts" into "insurance arrangements". But actually I think reference to insurance arrangements is incorrect as well as an IORP not necessarily has insurance arrangements. That means text should be "… underlying the benefit structure"?

2.17 The **AF** could indicate whether the information technology systems used for the calculation of the **Technical Provisions** sufficiently supports the actuarial and statistical procedures.

2.18 Where the calculation of **Technical Provisions** depends on multiple **models**, the **AFR** could make reference to any **material** differences between the results according to these **models** and the allowance that has been made for these differences.

2.19 Any **material** changes in methods from those used in the previous **AFR** might be disclosed and justified and the effect on the **Technical Provisions** could be quantified.

2.20 The **AFR** could include a description of how the appropriateness of the **data** and methods used to determine the assumptions underlying the **Technical Provisions** have been assessed.

2.21 The key assumptions underlying the calculation of the **Technical Provisions** could be included in the **AFR** and their appropriateness explained in relation to the main drivers of risk likely to affect the **IORP**. It may be useful to outline any **material** changes made to the assumptions used compared to the previous **AFR**. Attention might also be drawn to any **material** judgements made in determining the assumptions. An overview of the process used to compare assumptions against actual experience could be included and attention drawn to any concerns the **AF** has in regard to the effectiveness of this process.

2.22 The **AF** could set out its review of the quality of past best estimates and the conclusions drawn from this in relation to the appropriateness of **data**, methods or assumptions used in the calculation of the **Technical Provisions**. In reviewing the quality of past estimates, it might be helpful to **intended users** that the **AF** draws attention to those areas where actual experience has deviated in a **material** way from the assumptions made, including an analysis of the financial impact and provide a commentary in this regard. This could include commentary as to whether the sources of the deviations are caused by internal or external factors. It may assist understanding if this commentary distinguishes between deviations which are judged to arise from volatility of the underlying experience and those which are viewed as relevant to the appropriateness of the **data**, methods or assumptions used. The **AFR** could disclose any **material** judgements when such a distinction is made.

2.23 The **AFR** could provide an analysis of the sensitivity of the **Technical Provisions** to each of the major risks underlying the obligations which are covered in the **Technical Provisions**.

SECTION 3. UNDERWRITING POLICY

Commented [JMKvS6]: See comment on "underwriting" in the Appendix

3.1 Article 27 of the **IORP II directive** states "...to provide for an effective **AF** to...
(f) express an opinion on the overall **underwriting** policy in the event of the **IORP** having such a policy."

3.2 An opinion on the overall **underwriting** policy in the event of the **IORP** having such a policy could be included in the **AFR**. It may be useful to set out how the **AF** has arrived at its opinion.

3.3 The **AFR** could explain any concerns which the **AF** may have as to the suitability of the overall **underwriting** policy. The **AFR** could outline the recommendations to remedy any deficiencies the **AF** has identified in relation to the overall **underwriting** policy having regard to **materiality** and proportionality.

3.4 The **AF** could assess the suitability of the overall **underwriting** policy in the following areas ~~for example~~: sufficiency of premiums or contributions, environmental changes, adjustments to premiums, adverse demographic trends and interrelationships.

SECTION 4. INSURANCE ARRANGEMENTS

4.1 Article 27 of the **IORP II directive** states "...to provide for an effective **AF** to...
(g) express an opinion on the adequacy of insurance arrangements in the event of the **IORP** having such arrangements." This would normally mean insurance being purchased by the **IORP**.

4.2 An opinion on the adequacy of the insurance arrangements in the event of the **IORP** having such arrangements could be included in the **AFR**. It would be appropriate if there is public knowledge available that reference is made to it. It would not be expected to include an assessment of the ~~insurer~~insurance undertaking.

4.3 The **AFR** could explain any concerns which the **AF** may have regarding the adequacy of insurance arrangements in the event of the **IORP** having such arrangements. The **AFR** could outline recommendations to improve the insurance arrangements where the **AF** has identified deficiencies, including actions which might be taken to eliminate inconsistencies in insurance coverage or extend coverage of **material** risks.

4.4 The **AFR** might outline the extent to which the insurance arrangements of the **IORP** are not consistent with the **IORP**'s risk appetite, **underwriting** policy and **T~~t~~echnical P~~p~~rovisions.** It could also include recommendations as to how any inconsistencies could be remedied.

4.5 The **AFR** might incorporate the **AF**'s comments on the credit standing of its insurance counterparties and the expected returns, if applicable, in the commentary on interrelationships.

4.6 The **AFR** could include an assessment of how the insurance arrangements, including any **SPV**s, might respond in a number of stressed scenarios or referring to where this is considered in the Own-Risk Assessment. The scenarios might include risk aggregations, reinsurance defaults and reinsurance exhaustion.

4.7 The **AFR** could include an indication of the amounts recoverable from insurance ~~contracts~~ arrangements and **SPV**s and the impact on the **IORP**'s own funds.

4.8 Consideration might be given to the impact of reinstatements or renewal of insurance arrangements and the potential unavailability of insurance arrangements.

4.9 Commentary could be included on the effectiveness of the insurance arrangements in mitigating the volatility of the **IORP**'s own funds.

Commented [JMKvS7]: I don't understand this. "Public knowledge" of which item? Should this read as "It would be appropriate to refer to public knowledge of the insurance counterparty of the IORP"?

Commented [JMKvS8]: "Its" can only refer to AF, but that does not make any sense. It seems to me that IORP is mentioned here.

Commented [JMKvS9]: What does this mean? Which returns? Which interrelationships?

Commented [JMKvS10]: IORP2 does not have any reference to SPV, so why not leaving out ", including any SPVs,"?

Commented [JMKvS11]: In the context of section 4 "Insurance arrangements", shouldn't this be referring to the insurance providers rather than reinsurance providers?

Commented [JMKvS12]: See comment 4.6 to refrain from referring to SPV

Commented [JMKvS13]: I don't think referring to reinstatements makes any sense as reinstatements is a contracting topic between (primarily Property & Casualty) insurance undertakings and reinsurance undertakings

SECTION 5. RISK MANAGEMENT

5.1 Article 27 of the **IORP II directive** states "...to provide for an effective **AF** to...
(h) contribute to the effective implementation of the risk management system."

5.2 The ~~actuary~~ AF may wish to describe the areas where the **AF** has made a **material** contribution to the implementation of the risk management system and the work performed. In particular, this could cover the contribution of the **AF** to the risk modelling underlying the calculation of the **T~~t~~echnical P~~p~~rovisions** and any recommendations for the risk management system.

5.3 Other examples might include the role of the **AF** and its contribution to the Own-Risk Assessment process, including its views in relation to the stress- and scenario-testing undertaken, as well as to the assessment of the overall funding needs of the **IORP**, especially when a recovery plan is necessary, where applicable; the assessment of the risks to members and beneficiaries relating to the paying out of their retirement benefits and the effectiveness of any remedial action taking into account, where applicable, the qualitative assessment of the mechanisms protecting retirement benefits, including as applicable, guarantees, covenants or any other type of financial support by the **Sponsoring Undertaking**, insurance or reinsurance in favour of the **IORP** or the members and beneficiaries. The **AFR** may also wish to draw attention to the reliance on the **Sponsoring Undertaking**.

5.4 The **AFR** could summarise the main findings of these activities, and in such cases provide a reference to reports from the risk management function where appropriate.

APPENDIX: DEFINITIONS

The terms below are used in this EAN.

Actuarial Function (AF): A single person or organisational unit to undertake the particular governance tasks described in Article 27 of the **IORP II Directive**.

Actuarial Function Report (AFR): The report from the **Actuarial Function** to the **AMSB** in connection with Article 27 of the **IORP II Directive** and associated regulations, standards and guidelines.

Actuary: An individual member of one of the member associations of the Actuarial Association of Europe.

Actuarial services: Services, based upon actuarial considerations, provided to **intended users** that may include the rendering of advice, recommendations, findings or opinions.

Administrative, Management or Supervisory Body (AMSB): For example, the Board of the **IORP** or the Trustees of the **IORP**.

Conflict of interest: Occurs when an individual or organisation is involved in multiple interests, one of which could possibly corrupt the motivation for an act in the other or result in work which is not, or is not perceived to be, objective and impartial.

Data: All types of quantitative and qualitative information.

Intended user: Any legal or natural person (usually including the party who engages the provider of **actuarial services** - the client or the employer of the **actuary**) whom the **actuary** intends, at the time the **actuary** performs the **actuarial services**, to use the communication from the **AF**, typically in report form.

Material: Matters are **material** if they could, individually or collectively, influence the decisions to be taken by **intended users** on the basis of the relevant information given. Assessing whether something is **material** is a matter of reasonable judgement which recommends consideration of the **intended users** and the context in which the work is performed and reported (similarly **materiality**).

Model: A simplified representation of some aspect of the world. A **model** is defined by a specification which describes the matters represented and the inputs and the relationships between them, implemented through a set of mathematical formulae and algorithms, and realised by using an implementation to produce a set of outputs from inputs in the form of **data** and assumptions, usually involving judgement of the **actuary**.

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

IORP II Directive: Directive (EU) 2016/2341.

Institution for Occupational Retirement Provision (IORP): This means an institution, irrespective of its legal form, operating on a funded basis, established separately from any **Ss**ponsoring **Uu**ndertaking or trade for the purpose of providing retirement benefits in the context of an occupational activity on the basis of an agreement or a contract agreed:

(a) Individually or collectively between the employer(s) and the employee(s) or their respective representatives, or
(b) With self-employed persons, individually or collectively, in compliance with the law of the home and host Member States,

and which carries out activities directly arising therefrom.

Technical Provisions: The **technical provisions** of an **IORP** calculated under the valuation principles of the **IORP II Directive** (Article 13) and local regulations.

Sponsoring Undertaking: any undertaking or other body, regardless of whether it includes or consists of one or more legal or natural persons, which acts as an employer or in a self-employed capacity or any combination thereof and which offers a pension scheme or pays contributions to an **IORP**.

Special Purpose Vehicle (SPV): This means any entity other than the **IORP** which assumes risks from insurance and which funds its exposure to such risks through other financing mechanisms.

Commented [JMKvS14]: See comment 4.6 suggesting to leave out any reference to SPVs

Underwriting: The process of defining, evaluating and pricing insurance or reinsurance risks, including the acceptance or rejection of insurance or reinsurance obligations.

Commented [JMKvS15]: This is the ESAP 2 definition. It needs to be adapted to fit into IORP2 context (using IORP2 terminology) and to ensure it is clear to what topics "underwriting" applies