**Open Source Working Group of the  
Life Assurance Committee**

**Terms of reference**

**Background:**

There has been a massive explosion in big data technologies & open source programming languages. However traditional life valuation areas have seen limited benefit of these technologies. Most life valuation departments are tied into monolithic software solutions/vendors, the majority of which have not introduced the new technologies into their solutions.

Other professionals (e.g. engineers, statisticians, and physicists) have made the jump into big data technologies. This has been made possible by the development of open source libraries by the professionals themselves. Most of these developments have been done by professionals in academia.

**Scope**:

The scope of the Working Group is to develop open source solutions for actuaries working in the life insurance field.

**Objectives:**

* To investigate the need for open source actuarial modelling solutions in the South African life insurance environment.
* To design and develop a suitable open source modelling environment, including:
  + Open source software governance
  + Supporting architecture
  + Model development governance
  + Documentation requirements
  + Database management
  + User interface
* To develop open source libraries specific to life insurance modelling requirements, including (but not limited to):
  + Cashflow modelling
  + Stochastic modelling
  + SCR calculations
  + IFRS17 calculations

**Membership:**

The Working Group membership should reflect the size and expertise of membership to ensure that it has sufficient time, technical expertise and professional stature to address the objectives. This may include members who are not members of the Actuarial Society. Key skills include:

* Actuarial modelling
* Actuarial reporting
* Programming
* Software development
* Database management
* Model governance

The Working Group shall comprise at least 5 suitably qualified and experienced Actuaries of the Actuarial Society.

**Reporting:**

All scheduled (4 per annum) and unscheduled meetings have agendas with issues prioritized as need to be discussed and/or reviewed at each meeting. The Working Group maintains minutes of its meetings and these minutes are to be made available to LAC.

**Appendix: Membership (June 2020)**

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| **Name** | **Role** |
| TBC | Chairperson |
| TBC | Secretary |
| TBC | Member / Other Role |
| TBC | Member / Other Role |
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