



Working Party Research Topic/Title:-	<b>General Insurance - Better Sensing and Responding to Change Working Party</b>
Practice Area Research Committee Member Shadow:-	Kathryn Moore
Source of idea/"Initiator":-	Chris Smerald
Working Party Chair:-	Chris Smerald
What issue is this research topic trying to address:-	The aim of this working party is to establish an Enhanced Actuarial Framework for reserving and other actuarial practices sensitive to unstable operating environments. This framework will provide a collaborative approach between actuaries and other professionals, leveraging change diagnostics and integrating systems science principles, language philosophy, statistical process control, and actuarial methods
Who will be the audience for this research:-  <i>(We need to understand who we believe this research will be of interest to – to ensure we have an end consumer for the research)</i>	<b>Primary Audience:</b> Actuaries and risk management professionals in the insurance industry.  <b>Secondary Audience:</b> Regulators, underwriters, and other stakeholders interested in actuarial practice.
What do we see as being the output/deliverables of this research:-	<b>Focus and Objectives</b> <ul style="list-style-type: none"> <li>• <b>Primary Focus:</b> Develop practical problem-solving strategies for actuaries in complex evolving situations.</li> <li>• <b>Secondary Focus:</b> Enhanced identification, communication and collaboration strategies for diverse stakeholders required to address complex evolving situations.</li> </ul> <b>Research Questions:</b> <ul style="list-style-type: none"> <li>• What role can change diagnostics play in anticipating system changes?</li> <li>• How can model inconsistencies that fall over under stress be identified and addressed before they fail?</li> <li>• How can models be supplemented by stakeholder interactions?</li> <li>• How can the properties of systems self-organisation be used to collaboratively anticipate and manage responses to change?</li> </ul> <b>Gaps to Fill:</b> <ul style="list-style-type: none"> <li>• Systems science is currently implicitly not explicitly applied in actuarial science</li> <li>• Lack of regular collaboration between actuaries and other disciplines.</li> <li>• Need for more responsive and adaptive actuarial models.</li> <li>• Need for better models of how the external environment changes.</li> <li>• Actuarial Science is anchored to stationarity-based statistics.</li> </ul>



**Practice Areas:** This research spans all areas of actuarial practice, with a focus on reserving and risk management.

**Cross-Practice Benefits:** The framework will benefit from input across multiple practice areas, including life insurance, general insurance, and pensions.



What are the time scales of this research:-	No set end date.
What previous work has been done in this area recently, within the profession please email <a href="mailto:libraries@actuaries.org.uk">libraries@actuaries.org.uk</a> , other professions/academia:-	To be confirmed.
Will 3 <sup>rd</sup> party data be used? If so a protocol will be developed to support you	<b>External Expertise:</b> Regular input from experts outside the actuarial profession, such as data scientists, systems scientists and futurists, would enhance the framework's applicability and innovation.
Proposed membership:-  <i>The IFoA is registered as a Data Controller in terms of the Data Protection Act 1998. The contact details provided (i.e. names and email addresses) will be shared among the members of this working party, the Practice Area Research Committee and the relevant Practice Area Board in relation to the research topic detailed above. The information provided will be used for the purposes of facilitating the completion of the proposed research. The IFoA will not pass your personal information to any other third party without your consent. If you would prefer that your details are not shared in this way, please contact a member of the Communities Team.</i> <a href="mailto:Professional.communities@actuaries.org.uk">Professional.communities@actuaries.org.uk</a>	<b>Resources Required:</b> We need actuaries who have strong technical experience and curiosity about how other disciplines approach problem solving. Funding needs will be low. This work is foundational to all areas of actuarial practice and data science and thus will overlap most research, however the research details originate mostly from outside the actuarial profession and data science so it does not overlap any in its approach.
If currently operational, add list of members:	N/A
Additional volunteers required:-	One Deputy Chair, members IFoA members and non members are welcome
Frequency and type of meeting:-	To be confirmed at the first meeting of the group.
Engagement with external stakeholders – Public Affairs will support and arrange for you	Unknown
IFoA resource and support required:-  <i>The Communities Team and Research and Knowledge teams can offer various levels of support during the life of your working party; however we would ask that a member of your working party be responsible for keeping minutes or action points from each of your meetings.</i>  <i>It is important that the working party provides updates to the Communities Manager on an on-going basis, preferably after every meeting. This will ensure that the Board and other committees are kept informed of the work of the working party.</i>	<b>Dissemination Outlets:</b> Conference presentations, academic publications, and practical guidance documents.



## Working Party Terms of Reference

(In conjunction with the 'Guidance for Member Led Research Working Parties' and the Volunteer Induction Pack)

### Legal Issues to Note

#### **Intellectual property issues**

As our members and the wider public will appreciate, we want to ensure that the work produced by our working parties remains the intellectual property of the IFoA and not of individual members, their employers or of the working party itself. This means that that work can be used and disseminated by the IFoA to its members, stakeholders and the wider public to advance all matters relevant to actuarial science and promote the work of the wider actuarial profession.

The IFoA is very grateful to the members and their employers for the time, effort and work which is devoted to the working parties for the shared benefit of all members and the public. However, we also appreciate that employers may have their own intellectual property rights in that material – or even license it to/from third parties – and we need to make sure that the working party is not using that material without the employer's, or third party's consent. Members should remember that they need to get the consent of their employer or relevant third party to bring that material to the working party to use.

In recognition of the support provided by individuals and their employers, all material which is permitted to be used will, of course, be credited – noting the sources or contributors by name in the final work product generated by our working parties. Employers can also raise their own profile by allowing staff to sit on working parties and to have their firms acknowledged as supporting contributors in the final products.

The IFoA has some very short consent forms for our members to use if they do wish to use their employer's or a third party's work which will enable the Executive to compile a list of contributors to be referenced in the final work product. Please approach your relevant Practices Manager for more details. Again, the IFoA cannot provide members with advice in relation to intellectual property law and members may need to consult their own in-house lawyers or external legal advisers about this if they are in any doubt as to their obligations or if they have any concerns.

#### **Further guidance**

- The [UK Intellectual Property Office](#) has some helpful guidance for members on basic intellectual property issues.
- The World Intellectual Property Office's website also provides some [helpful guidance on intellectual property matters](#).

#### **Competition law issues**

It is the IFoA's policy to comply with competition law – this applies both to the IFoA itself and to our members. Some working parties will come across competition law issues due to the nature of their research work. Members who are on such working parties must be aware of this issue and be prepared to take steps to avoid any breach of the relevant competition laws.

We have produced an informative video clip which sets out some helpful guidance that working party members should bear in mind regarding competition law. However, we cannot provide advice to members, individual members may need to consult their own in-house lawyers or external legal advisers about this if they are in any doubt as to their obligations or if they have any concerns.

For members who are interested, the IFoA has also produced a short note on competition law issues which may impact our working party members. (See Appendix B, page 15)

#### **Further guidance**

The Office of Fair Trading (OFT) investigates competition law issues and has some [handy guides](#) which members might find useful.

The OFT also mentions the [Competition Pro Bono Scheme](#) which offers some free legal advice to individuals and businesses who believe that their rights under competition law have been infringed or who are concerned that they may be in breach of any relevant laws. Members may also find this useful.

#### **Conflicts of Interest**

Consider any conflicts of interest issues which might arise by virtue of a member's membership on the working party and which might breach the [Actuaries' Code](#) provisions