

## ACTUARIAL ASSOCIATION OF EUROPE

### FEEDBACK TO THE HIGH-LEVEL EXPERT GROUP THE DRAFT ETHICS GUIDELINES FOR TRUSTWORTHY AI

Dear Mrs. Smuha,

Thank you for giving us the opportunity to react on the Draft Ethics Guidelines for Trustworthy AI by the AI HLEG.

We have read the draft ethics guidelines with big interest and we appreciate the quality of the document very much. The discussion about trustworthy AI is, for our profession, of utmost importance. Firstly, because our activities are affected and secondly because we can enrich the discussion with our high-level experience – especially in the financial world – and the long history of our Profession.

As it is always difficult to define ethical principles for an entire scientific discipline, the Actuarial Profession chose an approach – for its professionals – which focuses on the individual. For example, if you take the discipline of statistics – which is very close to the discipline of AI –, it is difficult to regulate the effects which can be achieved by doing statistics incorrectly, presenting statistical results in an inappropriate way or interpreting statistics wrongly (either by purpose or by lack of knowledge). Therefore, stakeholders of statistics as well as for AI have to address those challenges directly and in an appropriate manner. We would therefore prefer to analyse the different groups of stakeholders acting in the AI field in more depth and try to address the challenges that they are facing with concrete guidelines.

One of these stakeholders are certainly the modelers (designing, coding, testing/validating) which should have similar tasks and responsibilities as actuaries have. As an example, to fulfil our roles, the Actuarial Profession has established four tools:

1. Education standards: to become an Actuary, an education program has to be passed which has worldwide common minimum requirements and has more advanced requirements in Europe.
2. Continuous Professional Development: Actuaries have to ensure that they are up-to-date in the fields which are relevant to the Profession as the world is moving forward.
3. Code of conduct: all Actuaries in Europe follow the same code of conduct which is based on 5 principles: integrity, competence, compliance, impartiality and communication.
4. Standards: with technical standards (European Standards of Actuarial Practice (ESAP), International Standards of Actuarial Practice (ISAP)), we ensure that actuaries produce outcomes of high quality following the principles which are stated in the code of conduct.

We would appreciate to discuss our ideas further and explain in more depth how we believe the development of AI can be kept under control either via written communications but preferably in personal meetings with (parts of) your expert group.

We are looking forward to future conversation on this important subject.

Esko Kivisaari  
AAE Chairperson

*A brief description of Actuaries, Actuarial Science and the European Actuarial Association*

*Actuaries are mathematicians mainly based in the insurance and pensions industry but also in banking and more and more also in other industries. They are mainly responsible for calculating insurance rating schemes, for analysing financial positions, for evaluating required risk capital and provisions. In doing this, actuaries follow the principle of “fairness” to act as an objective intermediate between the financial industry and the customers. The actuarial system is therefore an important part of financial regulation not only in Europe but all over the world.*

*If you go back in the history to the roots of statistics, you will find some of the first applications in the field which nowadays are seen as actuarial. Therefore, a lot of developments and improvements in statistical analysis go back to activities and research done by Actuaries. From that, it is obvious that modern advanced statistical techniques like clustering, neural networks, etc. are already in the actuarial toolboxes for quite a while.*

*Actuaries need statistical techniques mainly for two basic tasks: to assess differences on one hand and to assess similarities on the other hand between objects, cash-flow-streams, risks and even persons. Actuaries need to know what are the reasons and factors that trigger financial demand for individuals and how these demands can be financed by a large group of people. Fairness for both, the individual as well as the collective, is our guideline for our technical work.*

*Actuarial Science is the discipline that applies mathematical and statistical methods to assess risk in insurance, finance and other industries and professions. In many countries, Actuaries must demonstrate their competence by passing a series of rigorous professional examinations.*

*Actuarial Science includes a number of interrelated subjects, including mathematics, probability theory, statistics, finance, economics and computer science. Historically, Actuarial Science used deterministic models in the construction of tables and premiums. The science has gone through revolutionary changes since the 1980s due to the proliferation of high speed computers and the union of stochastic actuarial models with modern financial theory. While actuaries’ tasks are technical, it is important that they can explain and communicate what they are doing to a wider audience. In fact, the products that actuaries deliver are used by decision makers who are not necessarily specialized in Actuarial Science. Therefore, actuaries need to be able to explain their product/results in a transparent and clear manner to ensure that decisions are taken on a sound basis.*

*As a consequence, the Actuarial Profession is based on a common understanding not only on what they should do but also on how they should fulfil their responsibilities technically and ethically. A common education system and a common ethic code of conduct are therefore the pillars on which our profession is built on.*

*The Actuarial Association of Europe (AAE) was established in 1978 under the name Groupe Consultatif to represent actuarial associations in Europe. Its primary purpose is to provide advice and opinions to the various organisations of the European Union - the Commission, the Council of Ministers, the European Parliament, the European Supervisors and their committees – on actuarial issues in European legislation. The AAE currently has 36 member associations in 35 European*

*countries, representing over 24,000 actuaries. Advice and comments provided by the AAE on behalf of the European actuarial profession are totally independent of industry interests. The Actuarial Association of Europe is registered in the EU Transparency Register under number 550855911144-54*