TERMS OF REFERENCE OF THE COMBINED WORKSTREAM OF THE PROFESSIONALISM COMMITTEE OF THE AAE ON DATA SCIENCE AND ARTIFICIAL INTELLIGENCE

Whereas,

- different areas on the use of novel technology ("Big Data", "Artificial Intelligence" etc.) are on fundamentally different phases of their development ("Big Data" is in many senses state of the art "Data Science", of course developing all the time, while "Artificial Intelligence" holds many promises of huge benefits, but might be more on the way to the through of disillusionment, to quote the Gartner graph),;
- on a theoretical level there is not interest only in Europe but across the world: the IAA, under its Scientific Committee, has the Big Data Working Group that is expected to look at the "scientific" aspect of novel technologies. It should raise questions of the more 'scientific' issues to be dealt with the IAA group and cooperate with it;
- the European aspect is dominated by different initiatives to look at the ethics of the use of data and the concept of data privacy. One demonstration of this is the General Data Protection Regulation ("GDPR"). The European approach might be said to be open to innovation and progress, while taking care of the advances being for the benefit of individuals and societies. Therefore, the GDPR is unique globally and might be one of the ways of making the utilization of novel technologies responsible;
- it could also be acknowledged that if insurance and pension industries do not use techniques of predictive analytics responsibly, there will be a global backlash, initiated by different scandals, that will make it impossible to reap the benefits of novel technologies;
- The AAE should both reactively and proactively work along with the EU agenda – it should react to what the EU proposes and also try to influence the agenda of different EU institutions. Taking into account of EU priorities this would most probably exhibit itself in the area of responsible or ethical use of the novel tools;
- different European actuarial associations have their own ways of keeping their members aware of developments and educating their members to use novel techniques – this workstream should aid in sharing experiences and spreading good practices among European associations;
- actuaries are concerned over imprudent practices of using novel technologies without the safeguards of codes of conduct. This workstream should consider the need for European standards of actuarial practice to establish qualified actuaries as a trustworthy partner in the responsible use of novel techniques;

the Workstream will consider, from the point of view of the actuarial profession, all matters relating to data science (DS) and artificial intelligence (AI) from a Europe perspective, report to the AAE Professionalism Committee (PC) and make proposals on actions required. In particular, the Workstream will:

1. present through the AAE the views of the actuarial profession in Europe on matters of concern to the profession in the fields of DS&AI to the European Institutions, particularly the European Commission, EIOPA and the European Parliament, and, where appropriate, to other organisations in Europe;
2. encourage and promote the development, maintenance and enhancement of professional actuarial practice in Europe
3. where appropriate, collaborate with and inform other Committees of the AAE in considering issues of joint concern, to ensure a coordinated approach, in particular when making submissions to the European Commission and other external organisations;
4. develop position papers on DS&AI issues for submission to interested organisations, including the European Insurance and Occupational Pensions Authority (EIOPA);

5. consider issues relating to the professional conduct of actuaries and the provision of actuarial services in Europe, including the need for ESAPs or EANs to be developed, and make recommendations to the PC as appropriate
6. promote and encourage the development of actuarial skills in DS&AI within the actuarial profession in Europe, having regard to the AAE's Core Syllabus for Actuarial Training in Europe, and make recommendations, wherever appropriate, to the AAE's Education Committee on subjects relating to DS&AI;
7. promote the AAE as a natural and credible professional association for (actuarially oriented) data scientists;
8. provide a meeting and discussion platform for actuaries working in the relevant areas;
9. liaise with the Big Data Working Group of the International Actuarial Association;
10. proactively identify new opportunities and relevant areas of interest.

WORKPLAN

- Operate as support to actuaries involved in the EIOPA group
- Karel will prepare a document explaining the expectations for the combined workstream (done already).
- Christophe will prepare a survey for the members of the professionalism committee to find out the status and expectations of the MA (?).
- Would it make sense to have a page on the AAE website offering an overview of what is done with the links to the IAA working group webiste, for example? Should be done, timetable?
- Would it make sense to have a page on the AAE website offering an overview of what is done with the links to the local FMAs websites, for example? Should be done, timetable?
- There is a Professionalism component of using those novel technologies and potentially the need to create a new model standard on the use of Big Data and Artificial Intelligence. Would it make sense for the work stream to make a proposal to the ProfC in Bratislava? Yes.
- Would it make sense to formulate an AAE Big Data/AI strategy (e.g. ethical use, need for regulation, etc.) which is validated by the Board and FMAs such that we can promote a unified view (if we get one from FMAs) on those topics on an E.U. level? For autumn 2020?
- What can the AAE do to support its FMAs with regards to the competition between Actuarial Science and Artificial Intelligence and Big Data to ensure that they attract the young talents in the future? Therefore, I was wondering whether it wouldn't be the role of the AAE – from a European standpoint – to support the FMAs on this topic and come with a recommendation? Defined in the strategy?
- would it make sense to agree with Frank Thooft/EA on publishing a series of article on the topic (which we can also use for our blogs and webinars) on the following basis:
    - Article 1: Reporting from the EIOPA working group on data ethics (if information can be shared) – This would be very interesting for the readers and would allow the workstream members to have more time to work on the other items for the next articles);
    - Article 2: What is the AAE strategy with regards to Big Data and Artificial Intelligence;
    - Article 3: Overview of the activities that AAE Member Associations are pushing which are related to Big Data and Artificial Intelligence;
    - Article 4: Professional judgement, Big Data and Artificial Intelligence and the idea of the new AAE standard on the use of data;
    - Article 5: Status update on what was achieved by the AAE with regards to Big Data and Artificial Intelligence.
    - Writers?