



Prize for the Creative Use of Actuarial Skills

(Draft) Competition Outline

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Executive Summary

The **Actuarial Association of Europe (AAE)** aims to enable actuaries to reach out into new areas of work, and to promote the profession and broaden its reach beyond the traditional areas where actuaries work.

Recognising that encouraging creative thinking is central to achieving this aim, the **Education Committee** is launching a prize for the best University student project that demonstrates a **creative use of the actuarial skillset**.

Projects should be relevant not just to actuaries but to a wider audience. Students are encouraged to consider areas beyond those where actuaries traditionally work (specifically insurance & pensions).

The winning team will receive specially commissioned medals, a cash prize of €5,000, and the opportunity to present their project at the European Congress of Actuaries in 2021.

What is an Actuary, and what is the actuarial skillset?

For the purpose of this competition, the Committee encourages students to think of an actuary as “**a professional with a skillset to use numbers to make judgements about the future**”.

This definition aims to encourage a greater range of potential areas outside the traditional ones where the actuarial skillset is extensively applied. Other definitions of what is an actuary exist, this definition was chosen because it is optimistic regarding the future potential of actuaries - and seeing greater potential is considered a key element when applying creativity.

With this in mind, the actuarial skillset is considered to be:

Multi-disciplinary

- Actuarial training covers **many disciplines** including mathematics, probability & statistics, data science, finance, economics, computer science and risk management.
- Making **judgements about the future**, in a responsible and professional manner, also involves judging likely future behaviours and trends. Understanding *human, political, ethical* and *leadership* aspects is important, as is *communication*.
- Just as actuaries don't need to be doctors to understand mortality, they don't need to be experts in other fields to apply their skills there. But applying actuarial skills in wider ways involves demonstrating a working knowledge and **big picture understanding** of those fields.

Quantitative

At its core, actuarial work involves **using numbers to make judgements about the future**, which often requires an understanding of the present value of uncertain future cashflows or outcomes.

Socially responsible

Actuaries have traditionally played a socially responsible role to protect the interests of insurance policyholders, pensioner scheme members and the general public.

Competition Details

The competition is open to **teams of 3-4 members**, comprised of students currently pursuing actuarial and related courses at universities in Europe.

Teams can be comprised of students from different universities (to encourage students to build networks and share ideas from different courses) or from the same university.

Entries

The deadline for entries for the inaugural 2021 prize is **31st March 2021**.

For their entry, each team is required to produce a competition submission which includes:

- A **4-6 minute video** presentation.
Outlining the submission concept. All team members must contribute in some way in the video presentation.
- A **written report** (5-10 pages).
Outlining the concept, and summarising any data analysis or calculations performed.
- Any **supporting data analysis** documentation/programmes.
The use of Excel/Matlab/R/Python etc is encouraged, but not essential.

In advance of this deadline, teams are asked to submit an **expression of interest** (to include a team name and list of members) by **31st January 2021**. Expressions of interest and competition entries should be submitted by email to **xxxxxx@actuary.eu**

Judging

The projects will be judged based on three criteria with equal weight given to each

- **Creativity / imagination / vision [1/3rd]**
- **Pathos / communication of concept [1/3rd]**
- **Analyses conducted [1/3rd]**

The judging panel will consist of members of a sub-committee of the Education Committee of the AAE along with other representatives from the AAE.

Prize

The prize for the winning project consists of:

- The AAE Medal for the Creative Use of Actuarial Skills.
- A team cash prize of €5,000.
- An opportunity to present the winning project at the European Congress of Actuaries.

The winning project will be announced by end **April 2021**. The prize will be presented at the European Congress of Actuaries in **June 2021**.

Competition Support

Should students wish to seek additional support with their project, they are encouraged to contact the AAE Competition Admin team (via **xxxxxx@actuary.eu**).

Summary Timeline

31st January 2021: Expressions of interest to be submitted.

31st March 2021: Final date for entries.

April 2021: Judging period.

June 2021: Award ceremony at the European Congress of Actuaries.

Additional Info

Sample Projects

Six examples of the kind of projects that the AAE would like to see are from the "UCD - Actuaries of the Future" projects presented at the Society of Actuaries in Ireland's 2019 Annual Convention...

Actuaries in Sustainable Development & Microinsurance

<https://youtu.be/SdqkqQlj-GQ>

Actuaries and Waste Management

<https://youtu.be/SLYrhxXRHUw>

Actuaries in Environment Finance

<https://youtu.be/olu3ojU0T-o>

Actuaries and Artificial Intelligence

<https://youtu.be/CjvbUDF6Q70>

Actuaries in the Energy Industry

https://youtu.be/ZTsQK9xLD_I

Actuaries in the Justice System - Calculating Criminal Punishment

<https://youtu.be/wlsieNHMo7k>