



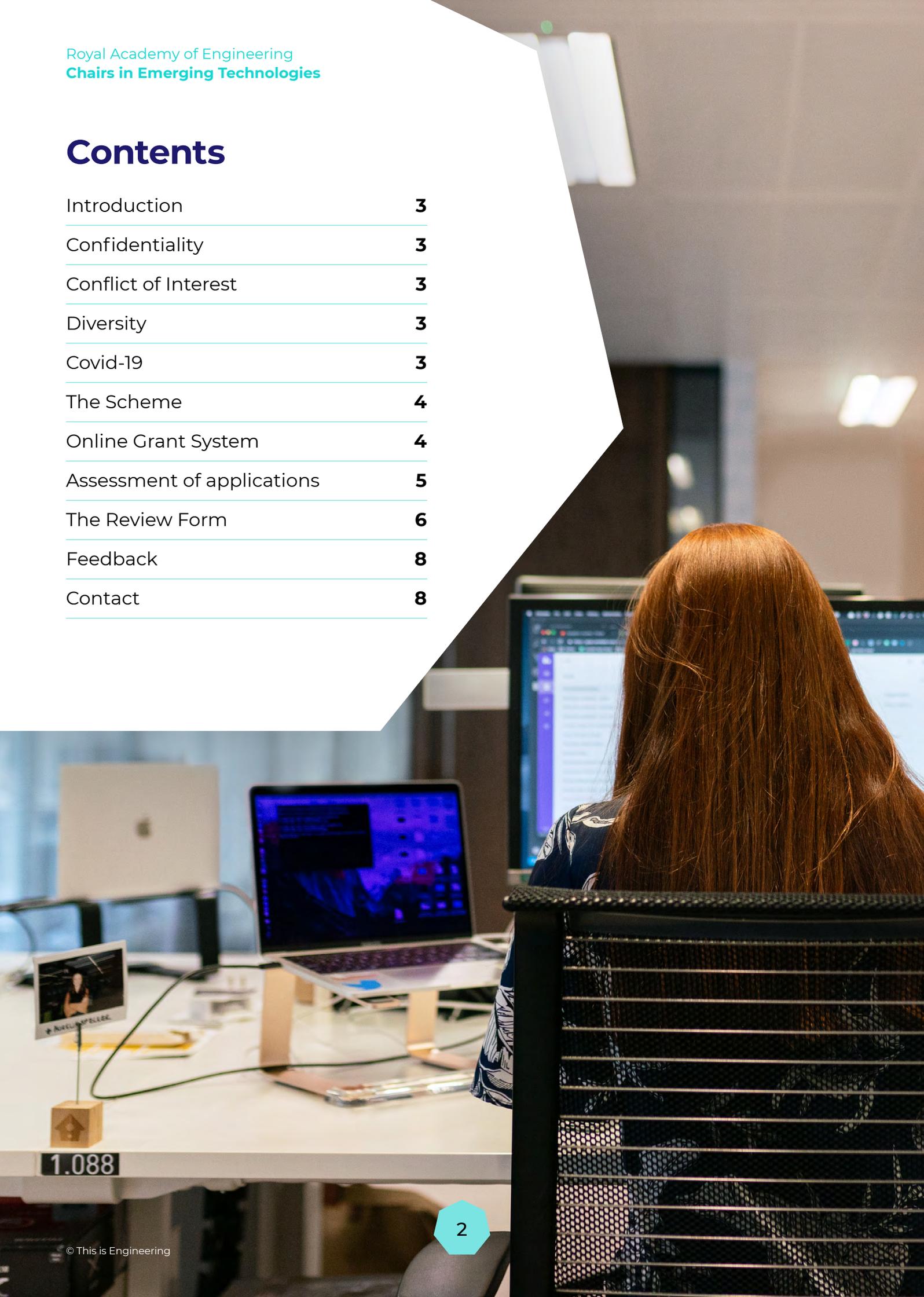
Royal Academy  
of Engineering

# Chairs in Emerging Technologies

Reviewer Guidance Notes 2023/2024

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## Introduction

The aim of this review stage is to provide expert peer review to the Panel, to enable the selection of candidates for interview. Reviewers should give an application a score out of 7, and a Yes/No recommendation on whether they should proceed to the interview stage.

The reviews should be submitted online through the Academy's Grant Management System.

## Confidentiality

Applications and reviews are submitted to the Academy in confidence.

- Reviewers should not discuss or share the application with any third party, without prior approval from the Academy.
- Reviewers should not discuss the application or have any contact with the applicant.
- Reviewers should not act upon any of the information they obtain through the applications and should not engage with applicants if approached about their review.
- Reviewers should not retain any copies of application documents once their role as reviewer has been completed.
- Any hard copies of application documents, or any electronic versions of application documents saved locally, must be destroyed/ deleted upon submission of the review.
- The identity of reviewers will not be made known to applicants but may be revealed to other members of the assessment process.

## Conflict of Interest

Reviewers should inform the Academy if they believe they have any conflict of interest or could be perceived by others to have a conflict of interest, which may affect their ability to provide a fair and independent review of an application. The Academy will then decide on the appropriate course of action. Conflicts include but are not limited to knowing the applicant outside of or through work, having a working relationship with their organisation, or having a commercial interest relevant to the application.

## Diversity

Reviewers are reminded that the Academy is committed to diversity and to increasing the participation of women and other minority and under-represented groups across science, engineering and technology. For more on Academy diversity activity and policy please visit <https://raeng.org.uk/diversity>.

## Covid-19

During these uncertain times, the Academy understands that some applicants will have their research activities severely hampered, or in some cases stopped, due to Covid-19 restrictions. We will try to ensure that individuals are not penalised for any disruptions to their careers that may have been caused by the pandemic. With this in mind, here are some general principles for reviewing applications:

Please take into consideration the unequal impacts that COVID-19 related disruptions might have had on individuals, universities and industry partners and bear in mind that they may not have chosen to disclose information.

Reviewers should assume that any changes that arise from the COVID-19 pandemic, post-submission, will be resolved and these should not affect their scores.



## The Scheme

Chair in Emerging Technologies is a highly prestigious scheme in the Academy's portfolio. This scheme is funded by BEIS and aims to identify global research visionaries and provide them with up to ten years of support to lead on developing emerging technology areas with high potential to deliver economic and social benefit to the UK. Applications are invited from world leading candidates, including those currently based outside the UK.

Reviewers must consider the potential of the area of emerging technology for economic and social benefit to the UK, and the wider strategic significance. This includes, but is not limited to, the four [Grand Challenges](#), [Sustainable Development Goals](#) and the areas highlighted in the [UK Innovation Strategy](#).

The Chair must be hosted by a UK university, and this can be in partnership with another UK organisation, such as national laboratories, research institutes, or innovation organisations, over the term of the award.

The appointed Chairs will:

- Lead major research, translation, and innovation programmes for key emerging technologies.
- Build world-leading centres of excellence in strategically important technologies, supporting their commercialisation and adoption.
- Build and maintain a strong network of industrial and other partners to facilitate technology commercialisation and the creation of significant UK economic and social benefit.

These will in turn allow the UK to gain comparative advantage across a range of disruptive or platform technologies and enable the opportunity for the nation to capture greater value from these advances.

## Online Grant System

Applications have been submitted through the online grants system at <https://grants.raeng.org.uk> and reviews must also be undertaken on the system.

You may already have an account with the Academy, e.g. from being a Fellow or when you applied for events or grants, and the same login details should be used.

Once logged into the system, you will be presented with the application you have been allocated to review. Clicking on the application reference number (in the format CiET-2324-xx) will take you through to the application summary page, where you can view the application and access the review form.

A visual step-by-step guide on using the system has been sent to you along with this document.



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## Assessment of applications

The application should make a clear case for long-term impact and alignment with challenge areas, sustainable development goals or UK Innovation Strategy. Applicants are asked to consider the novelty of the proposal in relation to the existing portfolio of existing awards (see Annex 1). The Academy may favour inward recruitment of international candidates who are currently based outside of the UK.

The Academy's research programmes are aligned with the Declaration on Research Assessment ([DORA](#)), which is a set of principles aiming to improve the ways in which the output of research is evaluated by funding agencies, academic institutions, and other parties. The outputs from research are many and varied, and as a funder of engineering research the Academy

needs to assess the quality and impact of these outputs to make awards – it is thus imperative that research output is measured accurately and evaluated wisely.

In the assessment of research output, we would like to emphasise that all outputs are welcome and considered valuable to the Academy. Outputs can include open data sets, software, publications, commercial, entrepreneurial, or industrial products, clinical practice developments, educational products, policy publications, evidence synthesis pieces and conference publications. Regarding research articles published in peer-reviewed journals, the scientific content of a paper is much more important than publication metrics or the identity of the journal in which it was published.



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# The Review Form

The review consists of the areas given below, and a score out of seven. Each application will be peer-reviewed by at least **three** experts in the subject area. This may, but not limited to Fellows of the Academy and external expertise can be sought. Following peer-review a Selection Panel (comprising of Fellows of the Academy) will be convened to evaluate all applications and select candidates for interview.

## 1 - Quality of the proposal

- The quality of the proposed research and innovation programme including its ambition, timeliness, novelty, and feasibility.
- Applicant's long-term vision for the technology and the applicant's contribution towards achieving this.

## 2 - Quality of the candidate

Based on the synopsis, CV, and applicant's track record, please comment on:

- The potential of the applicant to be a global leader in the emerging technology.
- Consideration of diversity and inclusion in research and team development.
- The applicant's plan to provide leadership through outreach and public engagement to promote the technology.

## 3 - Strategic significance

- The area of the emerging technology, its strategic significance, and its potential for the economic and social benefit to the UK.
- The long term wider strategic significance such as impact arising from the emerging technology if they address the four [Grand Challenges](#) and [Sustainable Development Goals](#) and the areas highlighted in the UK Innovation Strategy.

## 4 - Suitability and potential host university

Based on the university's (Dean/PVC or equivalent) letter of support, please comment on:

- The choice of host organisation, including its scale and significance in the UK.
- The host university's commitment to appropriately support the technology programme and the applicant over the ten-year term of the award.

## 5 - Suitability for award

- The chosen area of emerging technology and its suitability for being considered an 'emerging technology'.
- The proposal's suitability for a [Research Chair/ Senior Research Fellowship \(RC/SRF\)](#) award instead i.e., is the technology at a stage that industry would financially invest/match fund to develop it? This is a stage which is aimed to be achieved at the five-year mark of this ten-year award. Thus, applications that are already at this level will not be suitable to hold a Chair for Emerging Technologies title and recommended to apply for RC/SRF scheme instead.

## SCORE

Reviews must also give an overall score out of seven, with seven being the most positive. The score is for the application. The table below indicates the quality-thresholds required for each score.

Your score must be reflective of your 'Yes' or 'No' decision to proceed (i.e., an application receiving a score of 7, the recommendation would be a 'Yes'). Reviewers are encouraged to refer to these indicators in their comments and where possible to provide evidence from the application itself as this will greatly assist the Panel in the decision making and selection process.

Score	Rating	Indicators
7	<b>Outstanding</b>	Applicant is an excellent fit for the award, a leading academic in their field, head of a world leading research group, excellent choice of host university and strong support from host including additional funding. Wide reaching impact to the UK from the proposed emerging technology and the proposal is novel, ambitious and achievable. Applicant should progress.
6	<b>Excellent</b>	Applicant is a strong fit for the award, a proven academic in their field, head of a potentially world leading research group, excellent choice of host university, strong support from host. Proposal is novel, ambitious, achievable, and funding this emerging technology shows potential for significant wide-reaching impact for the UK. Applicant should progress.
5	<b>Very Good</b>	Applicant is a good fit for the award, a proven academic in their field, head of a potentially world leading research group, good choice of host university, strong support from host and proposal is strongly in an emerging technology. Proposal is novel, ambitious, achievable, and shows potential for wide reaching impact. Applicant should be considered and given an opportunity to address questions raised by reviewers in the application.
4	<b>Good</b>	Applicant is a reasonable fit for the award, a proven academic in their field, demonstrated leadership and team building qualities, good choice of host university, good support from host, and the proposal is within an emerging technology. Proposal is novel, ambitious, achievable, and shows some potential for impact. Worthy application but may not be competitive for this scheme.
3	<b>Average</b>	Applicant is not a good fit for the award, lacks evidence of proven track record and leadership ability, reasonable choice of host university, and standard support from host. Proposal cannot fully warrant being categorised as an emerging technology, is somewhat novel, ambitious, achievable, and shows some potential for impact. Applicant does not proceed.
2	<b>Below average</b>	Applicant is a poor fit for the award, lacks evidence of proven track record and leadership ability, poor choice of host university, little support from host. Proposal cannot fully warrant being categorised as an emerging technology nor is it novel, ambitious, achievable, and shows little potential for impact. Applicant does not proceed.
1	<b>Poor</b>	Applicant is a poor fit for the award, lacks evidence of proven track record, poor choice of host university, little support from host, and the proposal is not an emerging technology. Proposal is fundamentally incorrect and unachievable and shows no potential for impact. Applicant does not proceed.

Optional – additional comments

Please add any other comments you wish to make, for Academy use only.

For example, questions to ask at interview.

**To note:** scores form part of the review process and for the Selection Panel only and will not be shared with applicants.

The commentary provided should justify the mark given and should be written in such a way to enable the Academy to provide constructive feedback to applicants. This information will be used to inform the decision as to which applications should proceed to the next stage. Reviewers may be asked to provide additional information if their submitted comments do not contain sufficient information to validate the score given or for all panel members to assess and make an informed judgement.

Once a reviewer has completed a review form, the 'submit review' button will become available at the bottom left corner of the form. Please bear in mind that once submitted a review cannot be altered. Once complete, all reviews will be accessible by the Panel.

## Feedback

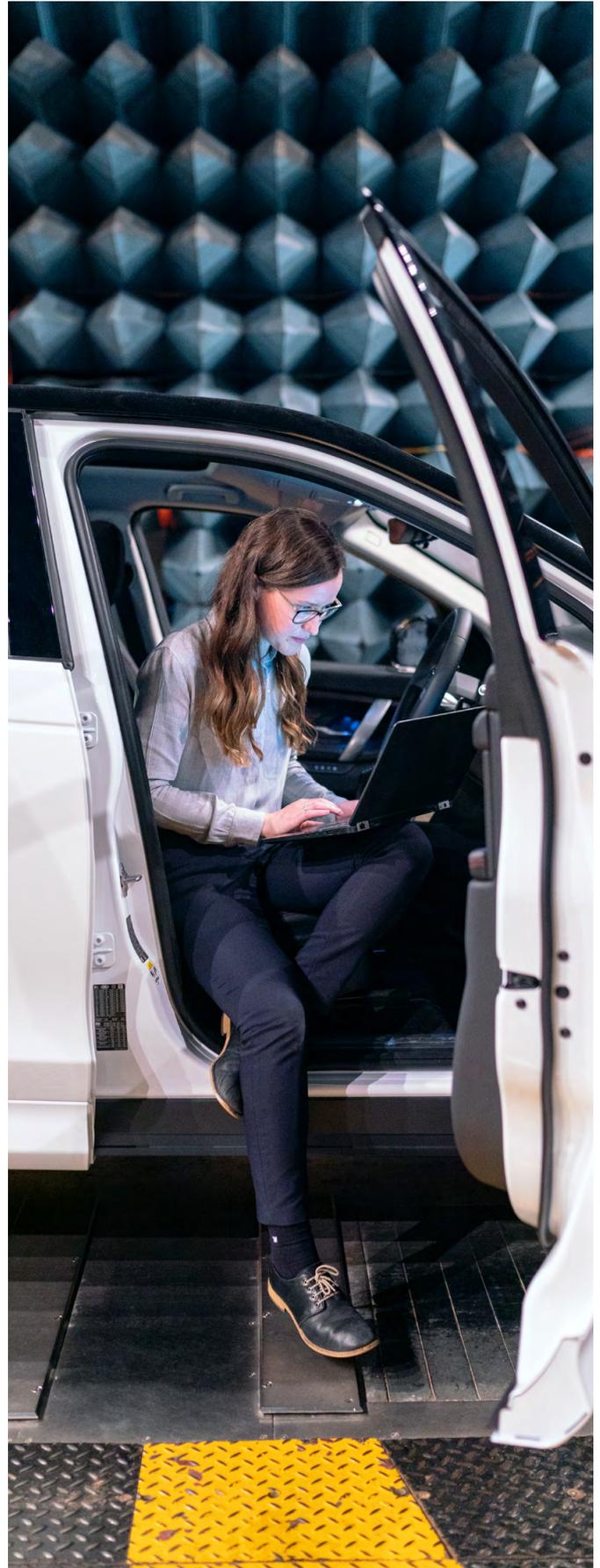
Where possible the Academy will provide feedback to candidates.

Please ensure that any comments provided are both complete enough and specific enough to allow the Academy to derive useful feedback.

Unsuccessful applicants may well go on to be successful in other activities with the right guidance.

## Contact

If you have any further queries on the review process or on using the grants system, please contact [research@raeng.org.uk](mailto:research@raeng.org.uk).



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# Royal Academy of Engineering

**The Royal Academy of Engineering** is harnessing the power of engineering to build a sustainable society and an inclusive economy that works for everyone.

In collaboration with our Fellows and partners, we're growing talent and developing skills for the future, driving innovation and building global partnerships, and influencing policy and engaging the public.

Together we're working to tackle the greatest challenges of our age.

## What we do

### Talent & diversity

We're growing talent by training, supporting, mentoring and funding the most talented and creative researchers, innovators and leaders from across the engineering profession.

We're developing skills for the future by identifying the challenges of an ever-changing world and developing the skills and approaches we need to build a resilient and diverse engineering profession.

### Innovation

We're driving innovation by investing in some of the country's most creative and exciting engineering ideas and businesses.

We're building global partnerships that bring the world's best engineers from industry, entrepreneurship and academia together to collaborate on creative innovations that address the greatest global challenges of our age.

### Policy & engagement

We're influencing policy through the National Engineering Policy Centre – providing independent expert support to policymakers on issues of importance.

We're engaging the public by opening their eyes to the wonders of engineering and inspiring young people to become the next generation of engineers.