



Physical Sciences Grand Challenges – FAQs

Please read these Frequently Asked Questions carefully before submitting an application in any of the Physical Sciences Grand Challenge Areas. If you have any other questions regarding the application procedure, please get in touch with the appropriate portfolio manager.

1) What are the Grand Challenges?

Grand Challenges are defined as significant problems that need a long-term, coordinated approach from researchers to overcome. The Grand Challenges, which are community-led and driven, are a mechanism being used by EPSRC in a number of different research areas. The identified Chemical Sciences and Engineering Grand Challenges <http://www.epsrc.ac.uk/research/ourportfolio/themes/physicalsciences/introduction/chemscieng/> are:

'Dial-a-Molecule' - 100% Efficient Synthesis
Directed Assembly of Extended Structures with Targeted Properties
Systems Chemistry: Exploring the Chemical Roots of Biological Organisation
Utilising CO₂ in Synthesis and Transforming the Chemicals Industry

The identified Physics Grand Challenges <http://www.epsrc.ac.uk/research/ourportfolio/themes/physicalsciences/introduction/grandchallenges/> are:

Emergence and Physics Far From Equilibrium
Quantum Physics for New Quantum Technologies
Nanoscale Design of Functional Materials
Understanding the Physics of Life

2) What is the scientific remit of the Grand Challenges?

These Grand Challenges are part of the Physical Sciences Theme. The topic of any application submitted to these areas should fall principally (>50%) within the Physical Sciences research areas. Further description of the research areas can be found here (<http://www.epsrc.ac.uk/research/ourportfolio/themes/physicalsciences/Pages/physicalsciences.aspx>). If you are uncertain as to whether your research falls within the remit of the Grand Challenges, please complete a remit query form (<http://www.epsrc.ac.uk/files/funding/how-to-apply/funding-basics/remit-query-form>) and send it to physicalsciences@epsrc.ac.uk. For the Emergence and Physics Far From Equilibrium and Understanding the Physics of Life areas, it is a **requirement** that you submit an outline of your proposed research. This applies to both Standard Research and Fellowship proposals. For general queries regarding remit within EPSRC and cross-Council, please use the remit query service. (<http://www.epsrc.ac.uk/funding/howtoapply/basics/remit/remitqueries/>)

3) How do I apply?

Applications are made in the usual way through the JeS system. You should clearly identify within your proposal or in the accompanying cover letter that your proposal falls within the Grand Challenge area.

4) Are there additional requirements if I am submitting a fellowship application to the Grand Challenge areas?

It will need to be made clear in your Case for Support as to how the research would address the challenge particularly in relation to other relevant activity and what role the individual will play to help lead/push the Grand Challenge approach forward. Where new networks are key to addressing this challenge, the leadership role of the fellow in helping to develop and building these will need to be outlined.

5) How do the Grand Challenge Networks fit in?

EPSRC has funded Networks in a number of Grand Challenges in order to help build communities in these areas. Details and links to the websites of these Networks can be found on the webpages for the Physics

<http://www.epsrc.ac.uk/research/ourportfolio/themes/physicalsciences/introduction/grandchallenges/> and Chemistry Grand Challenges

<http://www.epsrc.ac.uk/research/ourportfolio/themes/physicalsciences/introduction/chemscieng>). The information and roadmaps on the Network websites may also be helpful to you when seeing how your proposed research aligns to the Grand Challenge.

6) I am intending to submit a proposal against a Grand Challenge which has an associated Network. Do I need to be a part of the Network in order to submit a proposal?

It would be expected that as part of their Fellowship proposal, the applicant would describe their role in helping to develop the Networks. Although it is not a firm requirement for Standard Research proposals, peer review will be assessing your proposal in the context of the Grand Challenges, and are likely to expect to see appropriate levels of involvement in the Network schemes.

7) I am submitting my proposal against a non-Grand Challenge research area. Can I still explain the relevance and alignment of my research to Grand Challenges?

Yes, you can highlight how your research fits to the Grand Challenge in the way same as for other research areas.