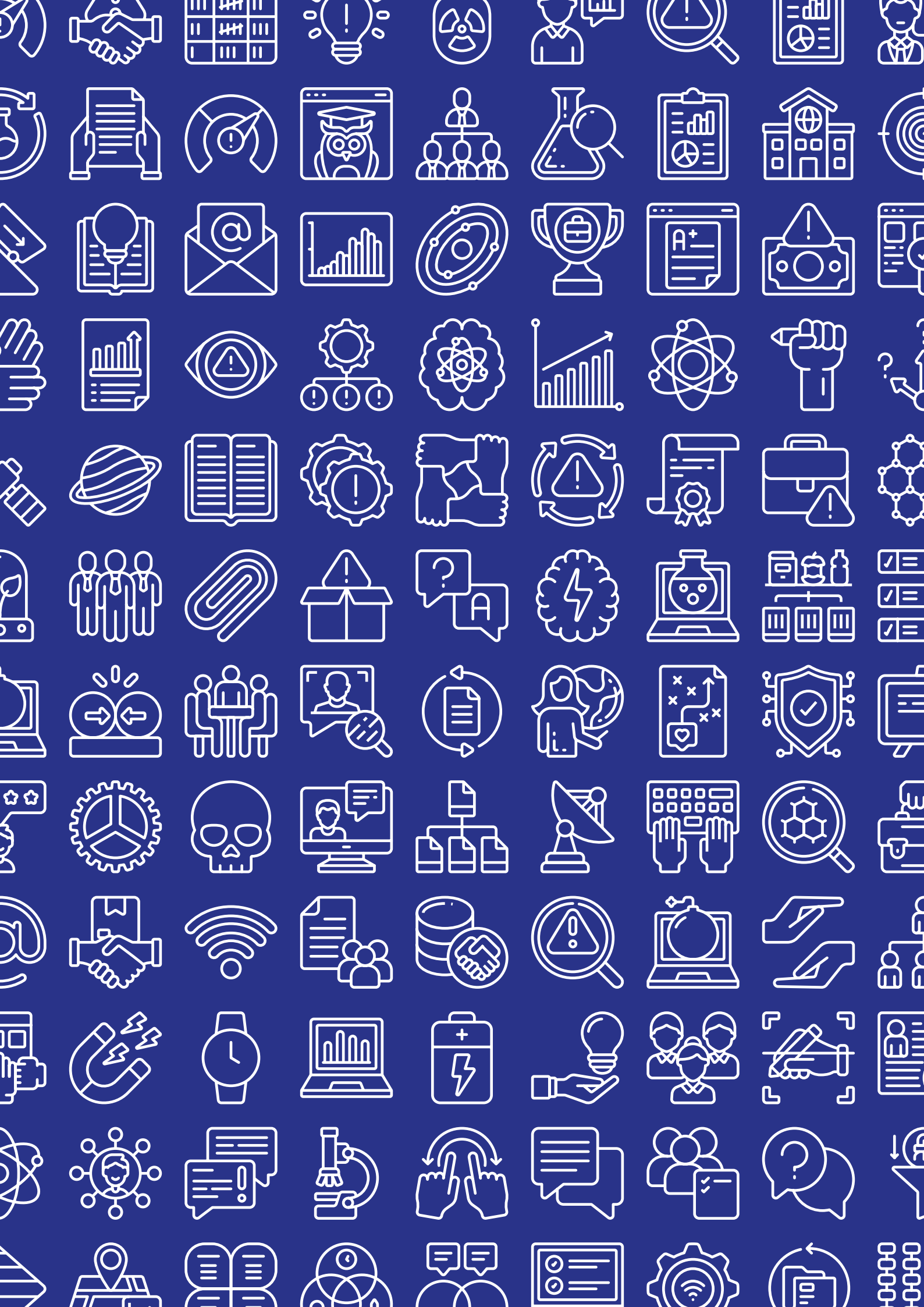
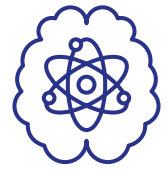




Chartered Scientist Application Guidelines



- 04 About professional registration
- 05 Eligibility Requirements
- 05 Meeting the standard
- 06 Demonstrating Competence
- 09 Application of knowledge and understanding
- 11 Personal Responsibility
- 13 Interpersonal Skills
- 15 Professional Practice
- 17 Professional Standards
- 18 The Chartered Scientist Standard Report: Five most common mistakes
- 20 Choosing your supporters
- 21 How is my application assessed?
- 21 Optional Interview
- 22 How long will my application take to process?
- 22 Document Checklist



Application of knowledge and understanding



Personal Responsibility



Interpersonal Skills



Professional Practice



Professional Standards

About professional registration

Professional registration is a peer-reviewed and internationally recognised confirmation of your achievements. Professional registration demonstrates a level of knowledge and experience that can be relied upon by employers and the wider community. It is recognition of your achievements and enhances your status.

By becoming professionally registered with the Institute of Physics (IOP), you agree to our Code of Conduct that reflects best practice. The code requires that our members not only show a high level of professionalism, but also advance their competence through continuing professional development (CPD).

The IOP awards its own professional registration of Chartered Physicist (CPhys). The IOP is also licensed by the Engineering Council to award Engineering Technician (EngTech), Incorporated Engineer (IEng) and Chartered Engineer (CEng), and by the Science Council to award Registered Science Technician (RSciTech), Registered Scientist (RSci) and Chartered Scientist (CSci).

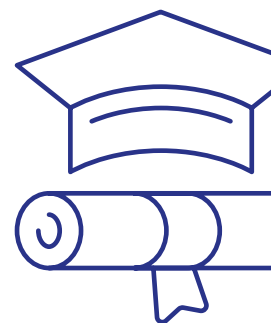
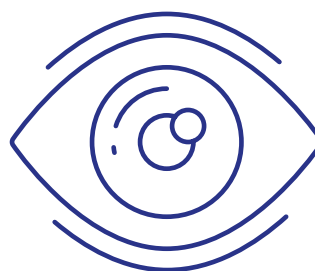
To be eligible to apply for Chartered Scientist through us you will need to be a member of the IOP and have a science-based qualification or equivalent knowledge and experience. If you are uncertain about your eligibility to apply for Chartered Scientist please contact us on registration@iop.org.

If you are not a member you will need to be elected to an appropriate grade of membership before your application for professional registration will be considered. For more information and to apply for membership please visit membership.iop.org.

This guidance document has been designed to guide you through the requirements and application processes for Chartered Scientist.

The application process is anonymous as such we request that when documents are uploaded personal identifiable information is not included. Supporting documents such as CV, organisational chart, the equivalence report or supporting statements or letters should not include the following information: name, contact details, address, date of birth, age, marital status, social media links etc. Degree certificates should not be anonymised as these are verified by IOP staff.

When completing your application, please avoid using your name or gender pronouns. References to publications, where relevant, should have all names removed but your level of involvement should be described.



Eligibility Requirements

Chartered Scientists represent the best professional scientists working in the UK and abroad. They demonstrate effective leadership, using their specialist knowledge and broader scientific understanding to develop and improve the application of science and technology by scoping, planning and managing multifaceted projects.

Chartership as a scientist reflects the wide variety of sciences and their practice, recognising high levels of skill and experience, independent of discipline.

To be eligible to apply for Chartered Scientist you will:

1. Have a good breadth and depth of scientific knowledge. You will demonstrate this by either:
 - Possessing an exemplifying qualification; or
 - Showing knowledge and understanding of equivalence to this
2. Have sufficient work experience to enable you to demonstrate the Chartered Scientist competences and provide examples of sustained experience at a responsible level. You will demonstrate this by completing the Professional Review Report.
3. Nominate supporters who can vouch for you. For all grades of professional registration, the IOP requires a minimum of two supporters. These supporters verify the content of your application and should be someone who knows your work.

How do I apply?

To apply for Chartered Scientist status, you will need to complete the online application form, which can be found at [applications.iop.org](https://www.iop.org/applications.iop.org).

Meeting the standard

Scientific knowledge

All applicants are required to demonstrate that they have the breadth and depth of scientific knowledge and understanding that is required for Chartered Scientist. Applicants need to demonstrate their competence across five areas by providing examples from their working life, usually within the last five years, that illustrates how they have met each standard. This is then assessed either online or in a face to face interview.

Applicants need to hold a level 7 qualification in a relevant scientific discipline (level 10 in Scotland) or equivalent level of learning. For example, a master's degree, a PhD certificate or a postgraduate certificate in education.

Non-UK qualifications

If you have a non-UK qualification, please contact us at registration@iop.org prior to applying and we will help you identify the right route.

The IOP will compare your qualification to a UK qualification using an international database, found at [enic.org.uk](https://www.enic.org.uk). The IOP uses this to verify the level of your qualification. Depending on how your qualification compares to the requirements for Chartered Scientist we will advise on the appropriate route of application which may include completing additional paperwork. If you have a qualification from an EU/EEA state or Switzerland, you may be eligible to apply through the Recognition of Professional Qualifications route.

If you have any questions, please contact us on **+44 (0)20 7470 4800** or email registration@iop.org.

Demonstrating Competence

Professional Review Report

All applicants are required to demonstrate that they have sufficient professional experience in a science-based role.

To enable a sufficient assessment of your professional experience, all applicants are required to submit a Professional Review Report. This report summarises and links your experiences to the competences for Chartered Scientist which are set by the **Science Council**.

Career length: There is no specific time-served requirement, but you will need to have been working for long enough to allow you to demonstrate all of the Chartered Scientist competences, and provide evidence of sustained work at the required level.

A template for the report is provided within the application form. It includes the following sections:

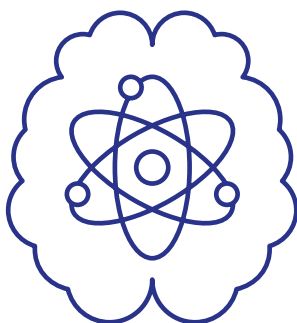
Introduction – A brief outline of your current role and its scientific content, around 200-500 words in length.

Organisational chart – An organisational chart or statement of accountability must be attached to your report. The chart or statement should detail your position within your organisation and display or describe any hierarchy, or matrix system, linking you to those you are responsible to and for. It should indicate your level of seniority within the organisation. If you work by yourself, for instance as a consultant, you must provide a supporting statement.

Competence and Commitment – You will need to supply evidence against each competency requirement, where you demonstrate how your experience meets each competency or commitment standard.

Each answer should be approximately 200-500 words. Within your answers, please provide several different examples of how you are using and applying your knowledge at a professional level.

A



Application of knowledge and understanding

B



Personal Responsibility

C



Interpersonal Skills

You should choose examples where you played a role that allows you to demonstrate how you have learned to apply your knowledge, your level of responsibility and how you have applied your professional judgment. We recommend that you provide at least two examples for each standard, one describing how you developed the competence or commitment and one describing your current level of experience and responsibility.

Continuing professional development (CPD) – Outline your training and development for the last few years as well as your plans for the next five years. This section should explain how you intend to maintain your competence once you are registered as a Chartered Scientist. This should be around 250 to 500 words.

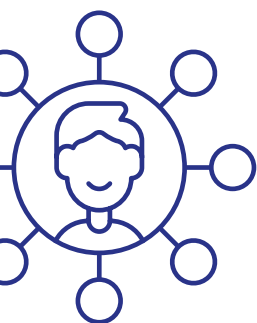
The Chartered Scientist Standard

Applicants for Chartered Scientist will need to demonstrate competence across five areas. Guidance on what the assessors will be looking for is provided

below, but the examples are just indicative – there will be many other valid examples you can choose.

The competences will largely be met during employment. For some applicants, professional development will be through participation in an IOP Accredited Company Training Scheme (ACTS) which will be structured in order to provide relevant experience and include the recording of evidence towards registration. However, it is recognised that many science graduates gain experience gradually over several years without undertaking formal training or participating in a professional development scheme and this is no barrier to attaining professional registration.

Competence is developed by a combination of formal and informal learning, and training and experience. However, these elements are not necessarily separate or sequential and they may not always be formally structured.



D



Professional Practice

E



Professional Standards

A



A: Application of knowledge and understanding

Identify and use relevant scientific understanding, methods and skills to complete tasks and address well defined problems

A1: Demonstrate how you use knowledge, experience, skills and broader scientific understanding to optimise the application of existing and emerging science and technology

You should provide sufficient detail here to show your deep understanding of your specialist scientific subject and how you have applied it. Further to this, include any examples of where your broader scientific understanding is applied to your area of practice. Examples could include but are not limited to:

- Writing and presenting internal papers, reports or standards
- Conducting appropriate research to facilitate design and development of scientific processes
- Writing primary journal articles and patents.

A2: Exercise sound judgement and understand principles of uncertainty in complex and unpredictable situations.

This competence is asking you to identify and be aware of the limit of your own knowledge and professional competence, to demonstrate an ability to manage your own strengths and weaknesses and to recognise the level of risk attached to your actions. Examples could include but are not limited to:

- When you have reacted and dealt with an unexpected outcome
- When you have approached a piece of work or project flexibly and in a novel or different way, or reacted to an unexpected outcome.

A3: Demonstrate critical evaluation of relevant scientific information and concepts to propose solutions to problems

You should think of this competence in terms of selecting the best methodology, the subsequent data analysis, evaluations and conclusions you draw and how you overcome any barriers or issues. Examples could include but are not limited to:

- Engaging in experimental design and testing
- Reviewing relevant literature, databases, manuals or designs
- Statistical analysis and numerical modelling.

B



B Personal Responsibility

Exercise personal responsibility in planning and implementing tasks according to prescribed protocols

B1: Work autonomously and take responsibility for the work of self and others

It is important for this competence to ensure you describe your contribution, responsibility and impact on a certain task or project and make it clear what you personally have achieved i.e. “I” not “we”. In formulating your answers and giving relevant examples, you should consider the following:

- You will be expected to undertake your work without day-to-day supervision, so you should demonstrate that you are able to achieve this
- You should demonstrate your understanding of when you may need to seek guidance from others and how you would obtain this guidance
- If you are responsible for managing the work of others, you should clearly describe how you discharge those responsibilities.

B2: Promote, implement and take responsibility for robust policies and protocols relating to health, safety and sustainability

You should demonstrate that you understand the policies and protocols related to health, safety and sustainability that apply to the work you are undertaking giving examples where you have implemented and promoted them and describe any responsibilities that you have related to this. In formulating your answers, you should consider the following:

- Demonstrate that you know where these policies and protocols are documented, and that you can apply them in your practice
- How your work contributes to the update and development of your departments/organisations policies and procedures
- How you “promote” the awareness and application of these policies and protocols with others, especially peers and more junior colleagues.

B3: Promote and ensure compliance with all relevant regulatory requirements and quality standards

You should demonstrate that you understand which regulatory requirements and quality standards apply to your area of work including data integrity and privacy. In formulating your answers and giving examples, you should consider the following:

- Describe what you do to ensure that these requirements and standards are being followed for those activities for which you are responsible
- Describe how you “promote” the awareness of regulatory requirements and quality standards amongst peers and more junior colleagues
- Describe how you safely store and handle data in line with national and international data protection and cyber security regulations.

B4: Oversee the implementation of solutions and demonstrate an understanding of potential and actual impacts of your work on your organisation, on the profession and on the wider community.

You should demonstrate an understanding of the potential and actual impacts of your work on your organisation, on the profession, on the public and on the physical environment. Examples could include but are not limited to:

- Indicating that you are aware of the sensitivity of your work and show how this understanding translates into the ways in which you carry out your work
- Showing an awareness of how your profession is portrayed and viewed by the public at large, and how you take responsibility for recognising this in the work you do
- Describing how you seek to avoid reputational damage related to the work you carry out
- Explaining how you set a good example to others in the way you discharge the responsibilities related to the work you undertake and the benefits to the organisation.

C



C: Interpersonal Skills

Demonstrate effective communication and interpersonal skills

C1: Demonstrate the ability to communicate effectively with specialist and non-specialist audiences

A non-specialist audience is anyone working outside of your area of expertise, so it would not necessarily be a non-scientist. Your example(s) should indicate how you have communicated in a way that is effective to each type of audience. In formulating your answers, you should consider the following:

- Not just the content of the message but also the mode or style of delivery that is adapted according to the audience
- The feedback loop to gauge understanding and improve future communications.

C2: Demonstrate effective leadership through the ability to guide, influence, inspire and empathise with others

This competence is about understanding your leadership skills and is not reserved for those in management roles, it is applicable to all. Examples could include but are not limited to:

- Experiences of mentoring or coaching you have had; you should consider how effective this was and the overall impact
- Considering when you have managed change within your organisation or overseen the implementation of any new processes; you should consider how effective this was and the overall impact.

C3: Demonstrate the ability to mediate, develop and maintain positive working relationships

You should describe or define the “working relationship” and provide at least one example that focuses on your handling of a challenging interpersonal situation and demonstrates your ability to mediate and achieve a positive outcome.

You should consider how through your approach you have changed or modified the behaviour or attitudes of others to positive effect. Examples could include but are not limited to:

- How you have managed the merger or integration of different teams
- Managing working relationships across different departments or organisations
- Interactions with committees, working groups or other professional body activities
- How you have managed and resolved a difficult relationship situation between members of a team for which you are responsible.

D



D: Professional Practice

Apply appropriate theoretical and practical methods

D1: Demonstrate how you scope and plan and manage projects

Using projects with which you have been involved as examples you should describe your roles and responsibilities in managing the activities to achieve the desired outcomes. Examples could include but are not limited to:

- Identifying the resources (people and/or money) needed to undertake the activities
- Monitoring and surveillance of the progress of the activities
- Identification, evaluation and implementation of changes that may be needed to ensure the activities are successfully completed
- Identification and management of risks that could impact on the successful completion of the activities.

D2: Demonstrate the achievement of desired outcomes with the effective management of resources and risks

Using projects with which you have been involved as examples you should describe your roles and responsibilities in managing the activities to achieve the desired outcomes. Examples could include but are not limited to:

- Identifying the resources (people and/or money) needed to undertake the activities
- Monitoring and surveillance of the progress of the activities
- Identification, evaluation and implementation of changes that may be needed to ensure the activities are successfully completed
- Identification and management of risks that could impact on the successful completion of the activities.

D3: Take responsibility for continuous improvement within a scientific or technical environment

Your examples should indicate what actions you take to make improvements to your organisation. This could be through encouraging the continuing development of junior staff or through improvements to processes within the organisation. Examples could include but are not limited to:

- Evaluation of the performance of specialist methods and tools used
- Development of recommendations for future enhancements or modifications to procedures or working practices to achieve performance improvements
- Description of examples where your actions have led to performance improvement by yourself or others.
- Identification of lessons learned from activities undertaken by yourself or by others for whom you are responsible, such as what went well, went badly or was lacking.

F



E: Professional Standards

Demonstrate a personal commitment to professional standards

E1: Comply with and promote relevant codes of conduct and practice

You should provide comprehensive examples of how you have applied and promoted the codes of conduct (e.g. IOP Code of Conduct) under which you practice and the outcome.

Examples you may wish to include but are not limited to equality, diversity and inclusion, reliability and integrity and ethical practices.

E2: Demonstrate a commitment to professional development through continuing advancement of your own knowledge, understanding and competence.

Your answer should provide specific examples of what you have already done in terms of continuing professional development (CPD) and your plans for the coming year. In your examples you must describe how your engagement in CPD has benefited your practice and the users of your work and reflect on its impact.

Examples can be taken from any of the five categories of activity (work-based learning, professional activity, formal/educational, self-directed learning and other). Examples could include but are not limited to:

- Application of knowledge acquired on an external course that has benefitted the business – how you acquired the knowledge of a new technology and how you planned, implemented and reviewed its success in your organisation
- Your work to promote careers in the STEM area including the design of materials and reflection on success.

We are not looking for a list of courses here but evidence of how your CPD benefits your practice and benefits others. All registrants will need to comply with the Science Council CPD Standards, and you should familiarise yourself with them and ensure your plan for CPD in the future will meet these.

The Chartered Scientist Standard Report: Five most common mistakes

1

We, not I

Now's your time to shine! We are awarding registration to you, not your team, so in all your explanations, you need to be clear on what your individual role was. If your entire answer references "us" and "we" with no "I" or "me," then you will need to reformulate what you've written.

2

Being too brief

After you've written your response, read it back and think about whether an assessor would be able to visualise what your role was. If they can't, you have not provided enough detail.

3

Lacking depth

It isn't just about what you did; it's about how and why you did it. You can only be awarded registration when our assessors are sure you know the impetus behind, and results from your work.

4

No outcomes

You need to demonstrate that you understand the difference that your work makes long-term. If you have improved a procedure, what does that mean in real terms? How do your colleagues benefit? What happens to the standard of your results?

5

Not referencing the heading

The competence report is broken into five sections with several sub sections. Read the section heading thoroughly before you write your response. You need to make sure you have fully absorbed what the standard is asking.

!

Personal details included

As the application process is anonymous, make sure all personal details are removed from your supporting documents and your application.

Refer to [our website](#) for further advice on completing your application.

Choosing your supporters

Along with your written application, you are required to supply details of two supporters who can verify the information in your application and comment on your suitability for Chartered Scientist. Sometimes you may find it necessary to provide the details of a third supporter in order to adequately cover the content of your application. Please note your supporters do not need to be professionally registered.

Please consider the following when choosing your supporters:

First supporter – This must be someone who knows, or has known you professionally, working at a senior level to you and with direct knowledge of your role and responsibilities. This could be fulfilled by your current line manager, employer, head of department or faculty, head teacher or training scheme mentor.

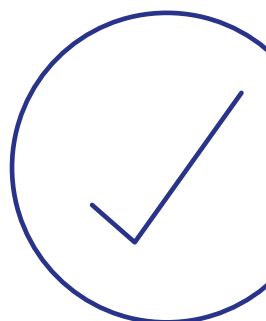
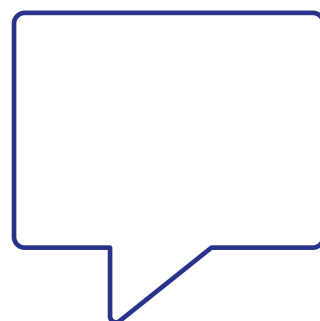
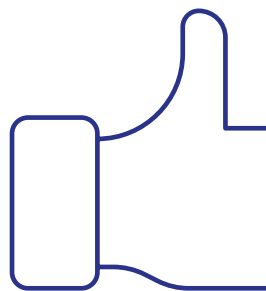
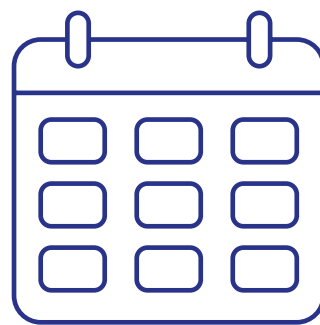
Second supporter – This must be someone who knows or has known you professionally at a relevant point in your career and will usually have been senior to you at the time.

Optional third supporter – A third supporter may be necessary if your application covers periods spent at several different organisations or if you undertake consultancy work.

Supporters should be familiar with your work, but not be a close friend or relative.

Please ensure that between them, your supporters are willing and able to verify your experience. They should be contactable by email for several months after you submit your application. Supporters will be sent links to the form they need to complete online via a generic IOP email address. Please ask your supporters to provide an email address that does not have a high firewall as this can cause delays in your application.

In the event of inconclusive comments from your supporters, we may contact them for further information or ask you to nominate an additional supporter. The assessment process places great value on the supporters' comments, so it is important that you select supporters that are willing to provide a full and detailed response.



How is my application assessed?

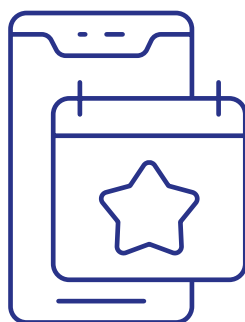
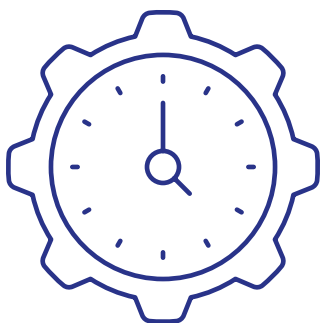
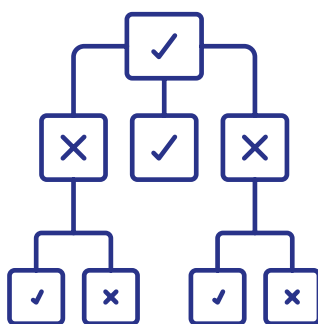
Each application undergoes an independent assessment by a panel of Chartered Scientists; The panel assesses the information in your application, and the comments of your supporters, in order to decide if you have met the standard for Chartered Scientist. If the panel feel you would benefit from attending an interview they will recommend so at this point. The panel may also advise at this point that you need to demonstrate further learning, training or additional experience. Once assessed, you will be notified of the decision.

Applications may be deferred, and this is generally due to insufficient responsible experience. Occasionally, applications are deferred to allow the applicant an opportunity to supply additional information. A deferral can be granted for up to a maximum of 12 months. Where an application is deferred or rejected the applicant will always receive a letter explaining the reason for this and suggesting a future course of action as put forward by the assessment panel.

Optional Interview

All applicants for Chartered Scientist who have selected to have an interview will be asked to attend a Professional Review interview to discuss their application in greater depth. The aim of the interview will be to confirm information supplied within your application and to verify that you meet the required standards.

Interviews are usually held virtually although in-person interviews can be made available if required and would normally be held in London. Interviews are conducted by two members of the IOP who are professionally registered with the Science Council. On occasion there may be an observer present.



How long will my application take to process?

You will normally receive the outcome of your application within twelve– sixteen weeks from when your supporters' responses were received. The outcome of your application will be communicated to you by the IOP following assessment by the panel. You can log back onto the online application form to check the progress of your application.

Poorly prepared applications will be sent back to you to review. This will mean your application will take longer to process. It is in your best interest to ensure that the information supplied is as accurate, clear and as complete as possible.

If your application is successful, you will be invoiced for your professional registration fees before your details are registered with the Science Council. Current fees can be found on our [website](#).

Document Checklist

To help you prepare your application please find listed below the documents that you will need to upload:

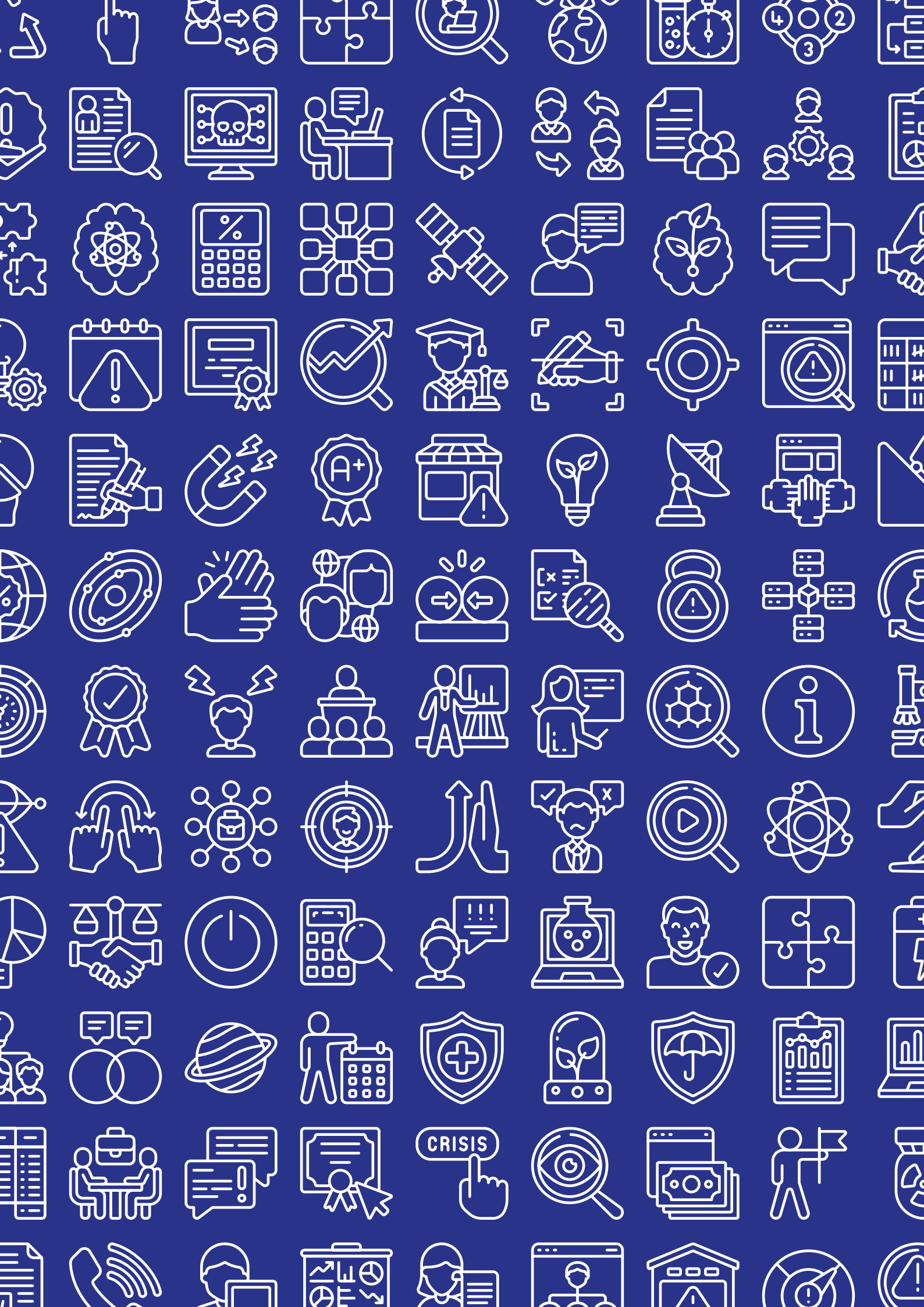
- CV
- Organisational Chart/Statement of seniority
- Qualification Certificates/Transcripts

Please remember that the following information should not be included in the supporting documents:

- Name
- Contact details
- Address
- Date of birth
- Age
- Marital status
- Social media links, etc.

Degree certificates should not be anonymised as these are verified by IOP staff.

The file name should not include your name.



Visit our **website** or contact us to discuss your application on +44 (0)20 7470 4800 or **registration@iop.org**. Apply online: **applications.iop.org**

The Institute of Physics is a charity registered in England and Wales (no. 293851) and Scotland (no. SC040092).

iop.org

The IOP is the professional body and learned society for physics in the UK and Ireland, with an active role in promoting cooperation in physics around the world. We strive to make physics accessible to people from all backgrounds. Our 22,000 members demonstrate their professional expertise in physics in settings ranging from schools, universities and national research facilities, to businesses of all sizes, and in roles as varied as teacher, researcher, apprentice, technician, engineer and product developer.

Date created: June 2020. Date reviewed: February 2022