

CHARTERED SCIENTIST

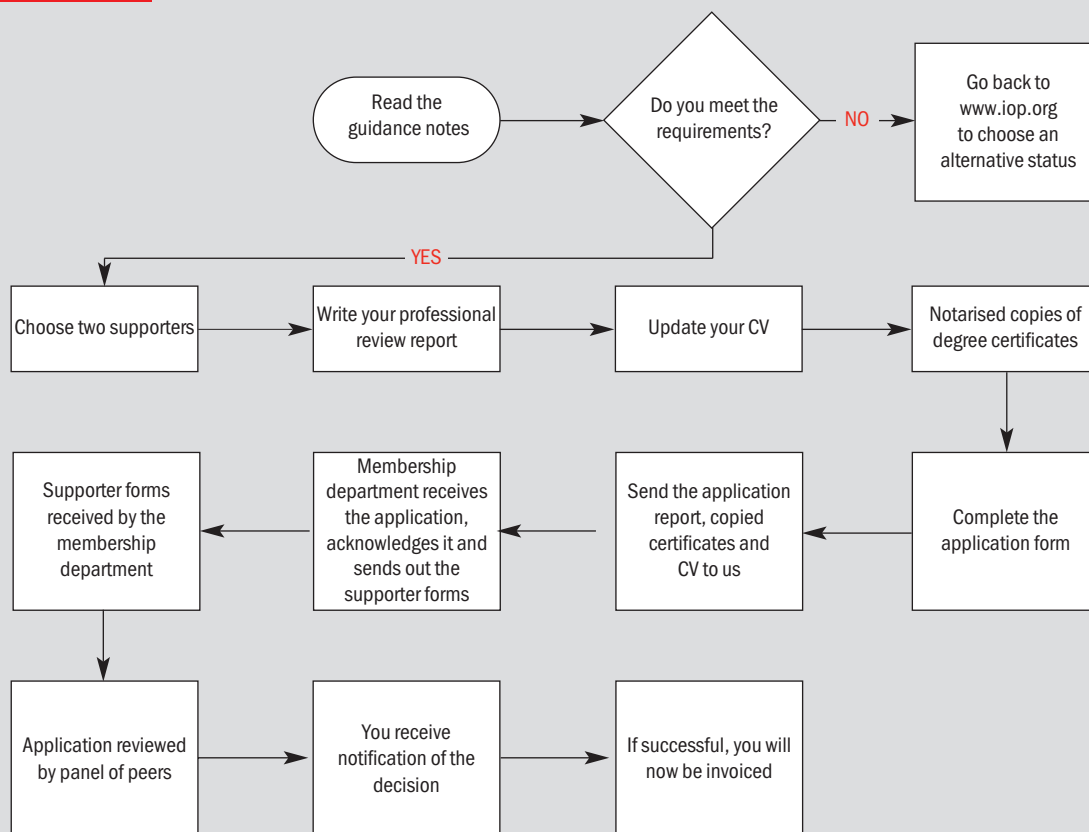
Welcome to the Institute of Physics – the home of physics and physicists in the UK, Ireland and beyond.

The designation Chartered Scientist (CSci) ensures high and improving standards across all scientific disciplines. It reflects best practice in science and is set at a benchmark level throughout our profession.

To apply for CSci you will need either to already be a Member of the Institute of Physics or be ready to submit your Member application at the same time as this one. Member guidelines can be found at www.iop.org (Professional Development). In addition, if you would like to you can apply for more than one Chartered Status at a time. More details about CPhys and CEng can be found at the same web address.

The basic requirements for CSci are that you have a degree in physics or a related subject and have approximately five years work experience in science.

Chartered Scientist - CSci



How long will my application take to be processed?

- The membership department will acknowledge receipt and send out your supporter forms within four weeks.
- You will receive a decision on your application within six weeks of your supporters returning their forms.

How long will my application take to write?

We find it takes people approximately three hours to complete an application for any chartered status if they do it all in one sitting. You might find it easier to do half an hour a night for a week.

Whatever you do, don't spend all that time writing your application and then forget to send it in. The Science Council changes the requirements every now and again so you don't want to find that when you do get round to posting it, it is no longer usable.

Choosing your supporters

Applications for CSci need two supporters who you can choose for yourself. Please consider the following when choosing your supporters:

- both supporters should be Members or Fellows of the Institute of Physics and be chartered;
- occasionally the Panel will accept applications from people who have only one IOP Member supporting them. In this case the second supporter should be chartered through a suitable professional body and the reason for your choice should be explained in a covering letter;
- one supporter should be outside your work place. The panel request this to ensure independence of opinion;
- both supporters should have known you (or known of you) for at least one year;
- remember that you must not be related to either of your supporters.

Additional guidance on choosing supporters can be found at www.iop.org (Professional Development).

Educational requirements

Before you begin your application it is worth checking that you meet one of the following criteria:

- you have an accredited masters level undergraduate degree (such as an MPhys or an MSci) in physics or a related subject;
- you have an accredited BSc in physics or a related subject. In this case you will need to write one additional paper showing masters-equivalence – but this is only 1000 words long and is explained in the next section.

The database of accredited physics degrees for UK and Ireland can be found from this page: www.iop.org (Professional Development)

If you have a degree from outside the UK or Ireland you can ask the Institute to compare it to UK degrees using an international database, found at www.naric.org.uk. The Institute subscribes to this well-respected database and uses it to judge the level of your qualification.

If you have no degree, but have more than eight years experience in physics, go to www.iop.org (Professional Development) for more information.

How do I show Masters Level (eg MSci, MPhys) equivalence?

Anyone with a BSc and no postgraduate training in science needs to submit this additional evidence (The Science Council do not accept a PGCE as fulfilling this requirement.)

There are several ways in which Masters-equivalence can be demonstrated. The most common is through a BSc honours degree plus one of the following:

- a postgraduate qualification in physics or a related subject (requiring 12 months' full-time study or equivalent) provided it includes project work. A PhD or MSc fulfils this requirement;
- a minimum of 12 months' professional experience (usually more) including in-depth study of a technical area and project work, as would be achieved in many jobs in industry. This may occur at the same time as the acquisition of responsible experience and the specified competences;
- some training schemes accredited for Chartered Physicist by this Institute have incorporated MPhys equivalence into the IPD phase. Candidates who complete these schemes are therefore not required to provide further evidence. Check with your scheme co-ordinator to see if this affects you.

Where Masters equivalence has been gained by professional experience, a report should be written setting out how this has been achieved. This report is separate from the Professional Experience report outlined above and only needs to be between 1000 and 1500 words long. Unfortunately we will have to return long or incomplete reports to you.

A template for your report can be found at the end of these guidelines. An editable word version of it can be downloaded from www.iop.org (Professional Development)

How many years work experience do I need?

The table below shows the minimum years of work experience you need before you can apply for CSci. A large number of candidates do not gain all the necessary skills within this minimum time so don't feel disappointed if it takes you a year or two longer than stated.

Level of degree	Minimum total experience required (years)
BSc Hons	5
MPhys/MSci	4
BSc + MSc	4
BSc + MPhil	4
MPhys/MSci + MSc	3
BSc + PhD	3
MPhys/MSci + MPhil	3
MPhys/MSci + PhD	2

All undergraduate degrees must be accredited. You can check whether yours is at www.iop.org (Professional Development). If your degree is unaccredited have a look at the web address above to see what you should do next.

Out of this total amount of work experience a minimum of two years has to be at a responsible level. The document "Guidance on responsible work experience" is attached at the end of these guidelines. You can also download the document at the web address above.

Gaining experience

You will need to be able to prove you can:

- deal with complex issues, both systematically and creatively, make sound judgements in the absence of complete data and communicate their conclusions clearly to specialist and non specialist audiences;
- exercise self-direction and originality in solving problems, and exercise substantial personal autonomy in planning and implementing tasks at a professional level;
- continue to advance your knowledge, understanding and competence to a high level.

As well as the three skills detailed above you will also need to prove you have gained the skills and abilities outlined in the CSci competences. These can be found at the end of this document.

How do I prove I have these skills?

Some institutes ask you to present a portfolio of evidence when you apply for chartered status. We think that while you should definitely have a portfolio and should regularly record the skills you have learnt (rather than just the courses you might have been on!) we don't need to see the whole thing – only a summary.

We ask every applicant for each chartered status to send us a professional review report. This report, explained in the next section, summarises and links your experiences to the competences for CSci. It also highlights how you have gained experience at a responsible level and provides us with a very accurate snapshot of your career at the time of application.

We do need to check the information, but rather than ask you for lots of counter-signatures we just ask you to choose two supporters who can verify the information you have given us.

Don't forget that two years of your experience has to be at a responsible level.

Your professional review report

All candidates have to complete one of these no matter how much experience they have. The report should be structured as follows:

- introduction - outlining your current role;
- initial Professional Development (IPD) – specifying the experience you have gained in the competence areas;
- responsible experience – giving three examples of how you are using your physics knowledge and skills to work at a professional level. These examples must be spread over at least 2 years to prove you have been working at a responsible level for this period;
- continuing Professional Development (CPD) – detailing activities undertaken during your working life and outlining future career plans that will ensure you meet the revalidation requirements.

To help you write this report we have provided a template. You can download it as an editable word file from www.iop.org (Professional Development). You do not have to use the template but this is the format the assessing panel have asked reports to be submitted in so not using it might mean your application takes longer to assess.

Candidates who have successfully completed a training scheme accredited for CSci do not need to include an IPD section in their report. Instead there should be a signed declaration from the candidate's line manager that the candidate has completed the accredited training scheme. In this case the total report length should be 800-1500 words. To see if your company scheme is accredited go to www.iop.org (Professional Development).

If you are applying for more than one chartered status you will need to address different competencies and must write a separate professional review report for each application.

Revalidation

Every Chartered Scientist is asked to submit a summary of how they have kept their skills up to date every five years. Further guidance on planning and recording career development can be found here: www.iop.org (Professional Development). The Science Council will issue further guidance on this area later.

How applications are assessed

A panel of five of our members who are also Chartered Scientists sees each application. The panel assesses the information in the application, and the comments of the supporters, and compares these against the requirements for Chartered Scientist. The panel will choose to accept, reject or defer the application. Deferrals are generally due to insufficient responsible experience. Where an application is deferred or rejected the applicant will always receive a letter explaining the reason for this and guidance on what to do next.

Competences for Chartered Scientist

A - Deal with complex scientific issues, both systematically and creatively, make sound judgements in the absence of complete data and communicate their conclusions clearly to specialist and non specialist audiences

A1 - Use a combination of general and experiential knowledge, understanding and skills to be able to optimise and engage in the application of existing and emerging science and technology

Typically this will include the ability and commitment to:

- identify potential projects and opportunities through a knowledge of the field of practice and current market needs;
- conduct appropriate research to enable the design and development of scientific projects/processes;
- know and manage personal strengths and weaknesses;
- identify the limits of own personal knowledge and skills;
- be confident and flexible in dealing with new and changing situations.

A2 - Use theoretical and practical methods in the analysis and solution of problems

Typically this will include the ability and commitment to:

- carry out experimental work and/or advise on and manage the work of others;
- collect, analyse and evaluate relevant data and offer solutions.

A3 - Communicate effectively

Typically this will include the ability and commitment to:

- present solutions to technical and non scientific audiences;
- communicate with colleagues at all levels;
- exchange information and give advice to scientific and non-scientific audiences;
- prepare and deliver appropriate presentations;
- prepare letters, reports and proposals.

B - Exercise self-direction and originality in solving problems, and exercise substantial personal autonomy in planning and implementing tasks at a professional level

B1 - Plan and organise projects effectively

Typically this will include the ability and commitment to:

- identify potential projects and opportunities through a knowledge of the field of practice and current market needs;
- identify factors affecting project implementation;
- ensure necessary resources are in place for effective project implementation;
- gather and evaluate feedback, acting where appropriate.

B2 - Work effectively in a team

Typically this will include the ability and commitment to:

- organise and lead work teams, coordinating project activities;
- identify, agree and work towards collective goals;
- create, maintain and enhance productive working relationships;
- be aware of the needs and concerns of others.

B3 - Use effective influencing and negotiating skills

Typically this will include the ability and commitment to:

- conduct appropriate research to influence the design and development of scientific projects and processes;
- have sound knowledge of project costs and the ability to negotiate appropriate project funding.

C - Continue to advance their knowledge, understanding and competence to a high level

C1 - Demonstrate a commitment to CPD

Typically this will include a commitment to:

- extend own knowledge, understanding and scientific capability;
- broaden own knowledge base;
- undertake reviews on own development needs;
- maintain evidence of professional competence development.

C2 - Demonstrate an understanding and commitment to Health and Safety and environmental issues related to employment

Typically this will include the ability and commitment to:

- operate and act responsibly, taking account of environmental and socio-economic factors.

C3 - Comply with the relevant codes of conduct

Typically this will include the ability and commitment to:

- comply with the rules of professional conduct of own professional body;
- work constructively within all relevant legislation and regulatory frameworks including social and employment legislation;
- apply professional work ethics.

How to apply

All candidates must submit three copies of:

- application form
- CV
- degree certificates. (These must be notarised copies of the originals – authenticated and signed by your manager/director/head of department as being true copies of the originals. Please do not send original certificates.)
- organisational chart
- professional review report
- Masters equivalence report where necessary

Unfortunately we will have to return incomplete applications to you.

Subscription fees for 2009

GRADE	Years in paid employment	Fee
Fellow	n/a	£120
Member	9+	£90
	7–8	£74
	5–6	£62
	up to 4	£44
Other grades studying (postgraduate students) ¹		£16
Part-time employment AND income greater than £10 000 p.a. – all grades	n/a	£46
Income less than £10 000 p.a. – all grades except Student Members	n/a	£15
CEng registration fee p.a. (passed to EC (UK) in full)	n/a	£29
CPhys registration fee p.a.	n/a	£15
CSci registration fee p.a. (passed to Science Council in full)	n/a	£15

REMISSION (applies to subscription rates only)

Retired: 60+ (all grades) £46

Retired: 70+ (all grades) £0

RECIPROCAL AGREEMENTS²

Members of the Institute of Physics and Engineering in Medicine, the Royal Astronomical Society and the Royal Meteorological Society **may reduce their membership subscription rate by 25%** (please indicate IPEM, RAS or RMS on subscription notice).

Contact details

Please send your application to:

Membership Department

The Institute of Physics

76 Portland Place

London

W1B 1NT

United Kingdom

If you have any questions

- either telephone: +44 (0) 20 7470 4800
- or e-mail: csci@iop.org

¹ To claim the studying rate (other grades) the full time study section on the reverse of the subscription renewal form must be completed.

² Only one reduction may be claimed – one reciprocal agreement or remission.

Masters Equivalence Report

An editable word document version of this form can be downloaded from **www.iop.org** (Professional Development)

To show MEng equivalence for CEng, as well as to fulfil the requirement of Masters Equivalence for CSci.

Please complete all the bold boxes.

My name

My membership number

Applying for

Welcome to the Masters equivalence report template. We expect this will take you approximately two hours to complete. The following notes have been provided to make the report easier to complete. Please read the notes carefully – this will save you time later.

The total length of this report will depend on which chartered status you are applying for.

- CSci – approximately 1000 words. The maximum length is 2000 words.
- CEng – approximately 5000 words or up to 10 000 if your submission consists of previously written reports.

Unfortunately we have to return longer reports to applicants for editing, which will inevitably delay your application.

A copy of this full report will be sent to your supporters for verification and comment.

- The following sections will be of more or less use to you depending on the type of project you took part in and what your role was. For CEng this must be an engineering role.
- These titles are given to guide you as to what the panel are looking for.
- Only complete the sections that are of relevance to you.
- Please ensure you emphasise your personal responsibilities and achievements in the following sections – this is what the panel will want to see.
- Remember that the panel are looking for evidence of an “in-depth study of a technical area that included project work” – you will need to include information that satisfies them that this has been done.
- Do not forget this project needs to be of the sort undertaken by an MSc student so must be physics/engineering based.
- The following are examples of the type of work that could be used for this report
 - Investigation of a physics-based or physics-related problem
 - Planning, management and operation of an experiment or investigation
 - Development of information retrieval skills
 - Informed use of data analysis methods
 - Establishment of co-operative working practice with colleagues
 - Adoption of a reporting structure for the dissemination of information

We suggest that you use past reports written as part of your initial professional development period to fulfil this requirement. We would not wish to make applicants rewrite what already exists so please do this wherever possible. It may be that instead of using this template you may just need to submit a piece of past work and write an additional section to explain your exact involvement and role.

Project

- Describe what the project was designed to achieve.
- Rough guide: 400 words

Project aim

Outcome

- What you did and the results of the project and how they relate to the original aims.
- Rough guide: 600 words

Outcome

Development

- How you developed your skills and knowledge to meet the needs of the project
- Rough guide: 600 words

Development

Evaluation

- A review of the project and any future improvements that could be made
- A summary of the skills and knowledge you developed.
- Rough guide: 400 words

Evaluation

All information provided by me within this report is true and correct to the best of my knowledge and belief.

Signed

Date

Thank you for completing your Masters equivalence report.

IOP Institute of Physics

Guidance on Responsible Experience

The following document has been written to help candidates applying for chartered status to know what is expected of them. The criteria listed below are by no means exhaustive and the Institute has a flexible attitude towards different approaches to responsibility.

No candidate is expected to show evidence of all of these criteria.

If you have any questions not answered by the advice here then please contact the professional development team:
cpd@iop.org

Summary

Your knowledge and experience must reflect a broad view of your employer and working environment. The main facets you will need to show evidence of are:

- CPD aimed at developing a deep specialism and/or broad knowledge across a physics related area;
- ability to carry out complex tasks in a fully flexible and adaptable manner;
- beginning to gain greater skills in dealing with customers/colleagues/students;
- identifying new opportunities for both your own development and that of the organisation;
- working to support the aims of your organisation and to promote it within your sector;
- starting to demonstrate leadership qualities and to take on team leader responsibilities;
- aspects of people development.

The following are ways in which the above criteria can be shown. **As before, this list is not exhaustive and no candidate is expected to be able to provide evidence in all these areas.** All candidates are expected to exhibit skills from the 'common' examples.

General

- Leads or manages a small study, research or project team.
- Works independently.
- Identifies new opportunities and is consulted on technical, research or business plans.
- Can make appropriate use of financial / budgetary information.
- Responds to the needs of customers/colleagues/students.
- Proactive in making changes, allowing for needs for quality standards and continuous improvement.
- Encourages flexibility from others.
- Proactive in encouraging others to seek out, record and share new knowledge.
- Manages and applies safe systems of work.

Functional

- Applies knowledge in a broad range of contexts within accepted practice and procedure.
- Offers professional advice in complex situations, maintaining professional integrity.
- Applies project management principles, identifying milestones and juggling resources.
- Works using delegation without abdicating responsibility.
- Makes reliable and consistent judgements, where there are few guidelines or precedents.
- Carries out risk assessment on projects.
- Promotes team spirit and keeps others focused on tasks ahead.

Technical

- Applies knowledge creatively in a broad range of complex and non-routine contexts, including design and development, though still within a framework of accepted practice and procedure.
- Has a growing ability to bridge between technical areas.
- Demonstrates technical integrity in approach and ability to meet technical scrutiny.
- Oversees the technical aspects of projects, both programs and standards of work.
- Shares technical information and ensures the passing on of lessons learned.

Academic

- Lecturing at an undergraduate level in pure and applied physics.
- Contributing to the design of post or undergraduate courses.
- Collaborating with industry and the wider physics community.
- Lecturing to peers at academic events.
- Publishing in peer-reviewed journals.

The Institute of Physics would like to thank QinetiQ for their help in compiling this document.

CSci Professional Review Report

An editable word version of this can be downloaded from
www.iop.org (Professional Development).

Please complete all the bold boxes.

My name

My membership number

Welcome to the professional review report template. We expect this will take you between 2-3 hours to complete. The following notes have been provided to make the form easier to complete. Please read the notes carefully – this will save you time later.

This report should have a total length of approximately 2000 words. The maximum length is 3000 words. Unfortunately we have to return longer reports to applicants for editing, which inevitably delays your application.

A copy of this full report will be sent to your supporters for verification and comment.

Introduction

- Please include your job title and a brief description of your role.
- An organisational chart should either be pasted into the box below or attached to this report. Unfortunately, reports without an organisational chart will have to be returned to you.
- Rough guide: 200 words

Job Title and Description

Organisational Chart

- Organisational charts must be pictorial in nature rather than verbally descriptive. An example is attached at the end of this template. (This should show your position within your organisation and display 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 one-person company - please indicate this below.)

Organisational chart

Initial Professional Development

- Rough guide: 1200 words in this section – you are advised to split this equally between the competence sections but you may wish to concentrate more strongly on particular areas.
- You will need to write a minimum of 100 words in each section.
- You need to emphasise your personal contribution to any work mentioned.
- **Candidates who have completed a CSci accredited training scheme ONLY** – ask your scheme leader to sign the declaration below. You then do not need to complete this section – go straight on to the responsible experience section.

Candidates from accredited training schemes ONLY This candidate has completed the training scheme accredited by the Institute of Physics	
Signed	Date
Position within the scheme	

A1

A2

A3

B1

B2

B3

C1

C2

C3

Responsible experience

- Rough guide: 600 words in this section.
- You have to give at least three examples of work which you have carried out at a responsible level. This level is defined in the separate document – “Guidance on responsible experience”
- Examples have to be spread over a period of at least two years.
- Please remember to emphasise your personal involvement in these projects.

Example one

Example two

Example three

Continuing professional development

- Rough guide: 200 words
- This section is not optional
- Please make clear your personal plans, aims and objectives for the next five years.
- These should highlight how you will retain competence once you are chartered.

Continuing professional development

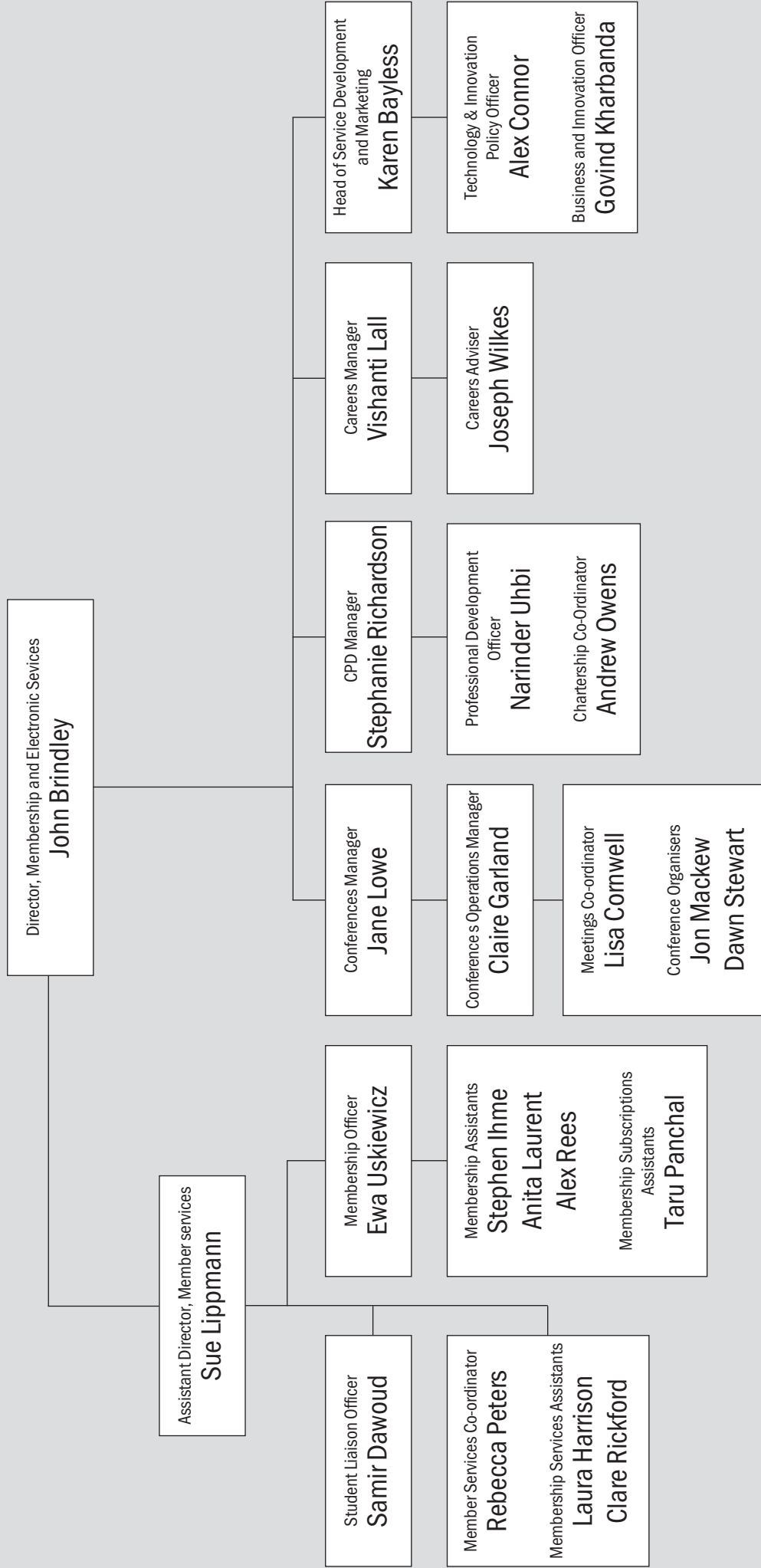
All information provided by me within this report is true and correct.

Signed

Date

Thank you for completing your professional review report.

IOP Institute of Physics
Membership & Business



Application form

Chartered status

The Institute of Physics

76 Portland Place
London W1B 1NT
Tel: +44(0)20 7470 4800
Fax: +44(0)20 7470 4848
E-mail: membership@iop.org
Web: www.iop.org

Membership ID No. (if known)

CHARTERED PHYSICIST (CPhys) MEMBER (MInstP)

CHARTERED ENGINEER (CEng) FELLOW (FInstP)

CHARTERED SCIENTIST (CSci)

SECTION A Personal and contact details (please write clearly, using black ink and capital letters)

Title

Surname or family name

Forenames

Date of birth (dd/mm/yyyy)

Gender (M or F)

Home address

Town

County/State

Country

Postcode/Zip code

Home telephone

Personal email address

Mobile

SECTION B Present employer or term address

Job title

Company name

Department/division

Town

County/State

Country

Postcode/Zip code

Telephone

Fax

Work/academic institution e-mail address

Please specify which address should be used for correspondence:

Home

Present employer or term address

→ Application form continues overleaf

Application form

Chartered status

The Institute of Physics

76 Portland Place
London W1B 1NT
Tel: +44(0)20 7470 4800
Fax: +44(0)20 7470 4848
E-mail: membership@iop.org
Web: www.iop.org

SECTION C Present course of study (if applicable)

Name and location of university/college (e.g. University of Bristol)

Department (e.g. Department of Physics)

Course title (e.g. BSc Physics or PhD Physics)

Date started (e.g. 01/09/2005)

Expected completion date (e.g. 01/07/2008)

SECTION D Qualifications already obtained (if applicable)

If you obtained your degree from the Open University, please send a list of courses studied in your degree with your application.

- (1) UNIVERSITY - e.g. University of Bristol
- (2) DEGREE - e.g. BSc in Physics and CLASS - e.g. 2:2
- (3) DATE OF AWARD - e.g. 01/07/2004

(1)	(1)	(1)
(2)	(2)	(2)
(3)	(3)	(3)

Please enclose a copy of your certificate(s)

SECTION E The internet register of members

The register of members is available on the internet to members only.

As a member you will be able to search the register to find contact details for other members. Access to the register will be through the member-only area of the site at www.iop.org. You can control how much information about you is displayed (address, e-mail, membership of Groups) by editing My Address from your personal homepage.

SECTION F Data protection

Please note that the Institute may use the information provided in this form to notify you by post, e-mail or telephone of services and benefits provided by the Institute to its members. At all times any such use shall be strictly in accordance with the Data Protection Act 1998.

Application form

Chartered status

The Institute of Physics

76 Portland Place
London W1B 1NT
Tel: +44(0)20 7470 4800
Fax: +44(0)20 7470 4848
E-mail: membership@iop.org
Web: www.iop.org

SECTION G Supporters

Supporters must be personally familiar with the work of the candidate.

SUPPORTER 1

Title
Name
Job title
Address
Postcode/Zip code
County/State
Country
E-mail address
Membership grade

SUPPORTER 2

Title
Name
Job title
Address
Postcode/Zip code
County/State
Country
E-mail address
Membership grade

SECTION H Obligation to charter & bylaws *(copy available for inspection upon request)*

I, the undersigned, having applied for election as a member of the Institute of Physics, hereby declare that if elected I will be governed by the Charter and Bylaws of the Institute from time to time in force; and that whilst a member of the Institute I will advance the object of the Institute so far as shall be in my power; I undertake to adhere to the code of conduct of the Institute; I will also undertake that I will forthwith cease to exercise any of the privileges of membership on receipt of a notice from the Honorary Secretary that in accordance with some one or more of the Bylaws I have been declared to be no longer a member of the Institute, and I will forthwith upon ceasing to be a member return any books, papers or other property belonging to the Institute, or for which the Institute is responsible, in my possession or entrusted to me.

I certify that the information given by me in this application is correct and I have included everything requested on the checklist.

Signature _____ Date _____

SECTION I Subscription

- I am currently studying and have completed section C
- My income is less than £10,000 p.a.
- I am in part-time employment and my income is more than £10,000 p.a.

I have been in paid employment for a grand total of ____ years.

Application form

Chartered status

The Institute of Physics

76 Portland Place

London W1B 1NT

Tel: +44(0)20 7470 4800

Fax: +44(0)20 7470 4848

E-mail: membership@iop.orgWeb: www.iop.org**SECTION J Notification of election (optional)****Please select a suitable person who you would like to be notified should your application be successful.**

See the Fellowship Guidelines for further information and guidance.

Please notify.... (*print clearly in capital letters*)

Title

Name

Job title

Address

Postcode/Zip code

County/State

Country

