



www.engineersireland.ie March 2015

# REGULATIONS FOR REGISTERED PROFESSION ECHARTERE

# ABOUT Engineers Ireland

Engineers Ireland is the operating name of the Institution of Engineers of Ireland. This operating name is used throughout this document.

Engineers Ireland, founded in 1835, represents all branches of the engineering profession and all categories of engineering in Ireland.

As set out in our Charter and Bye-laws, the fundamental aims of Engineers Ireland are:

- To promote knowledge of engineering and of engineering science.
- To establish and maintain standards of engineering education and training,
- To promote and provide opportunities for continuing professional development for engineers and engineering technicians,
- To maintain standards of professional ethics and conduct,
- To ensure that the registered professional titles of Engineers Ireland are awarded only to appropriately qualified engineers and technicians.

The Council of Engineers Ireland is empowered to define and protect the use of the registered professional title Chartered Engineer under its Charter Amendment Act, 1969, which states:

Chartered members of the Institution shall be known as "Chartered Engineers" and shall have the right so to describe themselves and to use after their names the abbreviation "CEng". Such right shall be confined to such Chartered members and to persons within the State in respect of whom the Council is satisfied that they are authorised to describe themselves as Chartered Engineers by a professional body recognised by the Council in that behalf.

Within Ireland, Engineers Ireland is the authoritative voice of the engineering profession on relevant national issues and is the sole authority to award the registered professional title of Chartered Engineer. It makes submissions and representations to Government and official bodies on national policy.

#### Our vision:

A society enhanced by the acknowledged contribution of engineering professionals

#### Our mission:

The engineering profession, as leaders and problem-solvers, commit to excellence in enhancing the quality of life for all

### ABOUT THIS DOCUMENT

### **ABOUT THIS DOCUMENT**

Congratulations on your decision to apply for the registered professional title of Chartered Engineer.

Beyond the specific statutory functions reserved for Chartered Engineers, achieving this registered professional title is a public statement of your competence to practise as a professional engineer. It is a seal of approval by your peers that you have developed your ability beyond that achieved in your academic formation to that of a professional practitioner. It is also a mark of your commitment to the continuing development of your professional expertise and ethical practise. Why is this important? Because, regardless of whether you are responsible for writing code for a banking system, developing a medical device, designing a wind farm interconnector or teaching our next generation of engineers, as a Chartered Engineer, you are reassuring the public of your respect and consideration for their society, their safety and their security. The public no longer desires this reassurance, they demand it.

Achieving the registered professional title of Chartered Engineer is therefore an important goal in any professional engineer's career.

Successful achievement of the title will require effort and determination on your part, as with any internationally recognised hallmark of professional excellence. This new regulations document aims to clarify the formation of a Chartered Engineer for you, including both the educational formation required and the development of professional competence in the workplace.

It is important to read the regulations and familiarise yourself with what is required for both your application and your future development. The regulations will guide you to appropriate sections throughout the document. The document explains how to confirm your eligibility for the title; what are the educational standards and the competences expected of a Chartered Engineer; how to complete your application; and what to expect after you have submitted it.

We wish you well with your preparation and can only assure you that our team is here to support you throughout the whole process.

Damien Owens

**Chartered Engineer** 

Membership Director and Registrar

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Everyone should read Section 1 of the regulations to learn about the formation of a Chartered Engineer and what is expected of a Chartered Engineer.

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SECTION 2	Everyone should read Section 2 to decide which route for Phase 1 formation assessment applies to you.
SECTIONS 3-5	These sections give the specific details for different Phase 1 formation assessment routes. You should only refer to these sections if you have been guided to in Section 2. If you are unsure which section is applicable to you, please contact the membership team at membership@engineersireland.ie or +353 (1) 6651334.
SECTION 6	This section describes how your Phase 1 formation application will be assessed if you have had to complete an application detailed in Sections 3-5.

PHASE 2	INITIAL PROFESSIONAL DEVELOPMENT
SECTION 7	Everyone should read this section to learn about the Phase 2 formation of a Chartered Engineer. All candidates who have successfully completed Phase 1 formation will need to complete the Phase 2 formation assessment to achieve the registered professional title of Chartered Engineer.
SECTION 8	This section describes the different parts to your Phase 2 formation application, the competences of a Chartered Engineer and why you are required to submit the details specified.
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### SECTION ONE

#### **BEFORE YOU APPLY**

You should familiarise yourself with this section before preparing your application. The purpose of this section is to clarify for you the standard required of a Chartered Engineer; in particular it aims to explain the formation and competences expected of a Chartered Engineer and to give guidance on how to demonstrate this formation.

#### 1.1 What is a Chartered Engineer?

#### 1.1.1 The legal basis to the title of Chartered Engineer

In 1969, Oireachtas Éireann granted to Engineers Ireland the sole statutory power and responsibility for awarding the title of Chartered Engineer (CEng MIEI) to professional engineers.

The registered professional title of Chartered Engineer is recognised internationally as the title to be used by professional engineers who are members of Engineers Ireland and has the same status as the professional engineering titles used in other countries. For example, in the US and Canada the title Professional Engineer (PE) is used, in Japan the title is Registered Engineer (RE), in Australia and New Zealand the title is Chartered Professional Engineer (CPEng), while the UK uses the title CEng, as we do.

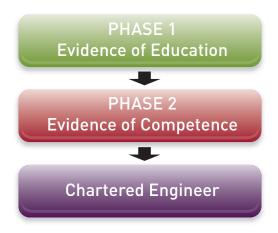
#### 1.1.2 Definition of a Chartered Engineer

The Chartered Engineer is a practitioner of high ethical standards who is responsible for non-routine intellectual work: applying his/her engineering knowledge to provide solutions to complex problems. The Chartered Engineer is a leader, a visionary and an excellent communicator.

#### 1.1.3 The designatory letters of a Chartered Engineer

If you are successful in the professional review, and provided you remain a member of Engineers Ireland in good standing, you will be entitled to practise professionally as a Chartered Engineer and use the designatory letters CEng MIEI after your name.

#### 1.2 The formation of the Chartered Engineer



The formation of a Chartered Engineer normally involves two phases, both of which are assessed by Engineers Ireland when you apply for the registered professional title. As part of your assessment you need to demonstrate the required level of underpinning engineering knowledge (Phase 1 - educational formation) and your achievement of the required level of engineering competence (Phase 2 initial professional development (IPD)) through practical working, understanding and application of your knowledge. Achieving the required educational standard in Ireland for Chartered Engineers will mean you have acquired a wide and deep understanding of the engineering principles associated with your engineering discipline. Such studies will also have given you the ability to consider engineering problems systematically and in a logical fashion. This represents Phase 1 in the formation of a Chartered Engineer.

### SECTION ONE

#### **BEFORE YOU APPLY**

Phase 2 in the formation of a Chartered Engineer is called IPD. IPD involves the development of the competences required of a Chartered Engineer by applying your learning and knowledge to the solution of engineering problems. The IPD period will take a minimum of three years post achievement of Phase 1 formation and may take longer depending on your achievement of the competences. The onus is on you to ensure that you are confident you can fully provide evidence of your competence. Your IPD involves training, experience and participation in continuing professional development (CPD) which is appropriate to your career path. You will be required to demonstrate that you have acquired these competences both in your written submissions and at interview.

1.3 Pathways to becoming a Chartered Engineer

- 1.3.1. Firstly you must be a member of Engineers Ireland at least three months prior to applying for the registered professional title of Chartered Engineer.
- 1.3.2. Then if you hold: (please choose from the selection below)

(a) MIEI +
Accredited Phase 1 Phase 2
Assessment Engineer

Chartered Engineer

A master's degree in engineering accredited by Engineers Ireland at the educational standard required for a Chartered Engineer. For this route you will have completed a full-time accredited master's degree programme or the summation of accredited qualifications leading to a master's degree (e.g., an integrated accredited masters, an accredited bachelor (honours) degree in engineering, plus an accredited master's degree in engineering).

(b) MIEI + BEng (Hons) Phase 1 Check Phase 2 Chartered Engineer

A bachelor (honours) degree<sup>2</sup> in engineering awarded in or before 2012 and accredited by Engineers Ireland at the educational standard required for a Chartered Engineer. This will remain the case until the 31st December 2020 at which time holders of this degree will be required to demonstrate evidence of further learning as described in (c) and (d) below:

(c) MIEI + BEng (Hons) post 2012 Phase 1 Assessment Route A Assessment Route A

A combination of a bachelor (honours) degree<sup>2</sup> in engineering awarded post 2012, which is accredited by Engineers Ireland as requiring further learning to reach the educational standard required for a Chartered Engineer, plus an unaccredited master's degree in engineering.

(d) MIEI + BEng
(Hons) post 2012 | Assessment | Phase 2 | Chartered |
Further learning | Assessment | Route B

A combination of a bachelor (honours) degree<sup>2</sup> in engineering awarded post 2012, which is accredited by Engineers Ireland as requiring further learning to reach the educational standard required for a Chartered Engineer, plus further learning equivalent to the outcome of a master's degree in engineering:

MIEI + formation unaccredited for Chartered Engineers Chartered Learning Phase 1

Approval Assessment Experiential Learning Phase 2

Experiential Learning Phase 2

Experiential Learning Phase 2

Experiential Learning Phase 2

Experiential Learning Phase 3

If you hold a qualification, or equivalent, not accredited at the educational standard required for a Chartered Engineer (this includes qualifications accredited by Engineers Ireland for the registered professional title of Associate Engineer;<sup>3</sup> cognate qualifications in a field related to engineering; and those holding no formal qualifications but with experiential learning).

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#### **BEFORE YOU APPLY**

(f)



If you hold a qualification accredited by Engineers Ireland at the educational standard required for the registered professional title of Engineering Technician<sup>4</sup> you will be required to apply for pre approval by the MQB to apply for the registered professional title of Associate Engineer prior to applying for that of Chartered Engineer.

The component parts of each of the pathways shown above are described in detail later in this document. Your eligibility for any specific pathway will define the documentation you are required to submit as evidence of your educational formation and competence as a Chartered Engineer. If you are unsure of your eligibility please don't hesitate to contact the membership team at membership@engineersireland.ie or +353 (1) 665 1334 for clarification.

Regardless of the pathway, all candidates will ultimately be assessed against the Engineers Ireland competence framework for the registered professional title of Chartered Engineer.

#### NOTES

- This route will also apply to those holding international qualifications recognised under the Washington Accord, or programmes recognised by FEANI of >4 years' duration. If a further learning requirement is imposed by the Washington Accord then option c. or d. above will apply depending on your formation.
- The award at this level may also include a BSc or BAI; the details of all the accredited programmes may be found at www.engineersireland.ie/accredited.
- This route will also apply to those holding international qualifications recognised under the Sydney Accord or programmes recognised by FEANI of ≤4 years' duration.
- <sup>4</sup> This route will also apply to those holding international qualifications recognised under the Dublin Accord.





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### **SECTION TWO**

#### PREPARING YOUR APPLICATION

#### PHASE 1 – GENERAL

#### 2.1 The educational standard

- 2.1.1 You must provide evidence of your achievement of Phase 1 of the formation of a Chartered Engineer. This can be done in a number of ways depending on your qualification and/or further learning.
- 2.1.2 The educational standard required of a Chartered Engineer is an Engineers Ireland accredited master's degree in engineering, or equivalent. Therefore, evidence of achievement of Phase 1 of the formation of a Chartered Engineer may be shown by the completion of a master's engineering degree programme accredited by Engineers Ireland (this is normally at Level 9 on the Irish National Framework of Qualifications (NFQ)). If you do not hold an accredited master's degree in engineering you may provide evidence of equivalent educational formation by the submission of additional documentation. The documentation required will depend on your educational formation to date. This is discussed further in Section 2.2.
- 2.1.3 The Accreditation Board of Engineers Ireland is responsible for accrediting engineering degree programmes in Irish universities and institutes of technology. Accreditations are awarded to programmes assessed as meeting the academic standard required for each of the registered professional titles awarded by Engineers Ireland, i.e., Chartered Engineer, Associate Engineer and Engineering Technician. From 2013 accreditations will also be awarded to engineering programmes requiring further learning to reach the educational standard required for a Chartered Engineer. These programmes are normally bachelor of engineering (honours) degrees and are normally, but not always, at Level 8 on the Irish NFQ.
- 2.1.4 A full list of accredited programmes is available on www.engineersireland.ie/accredited. If you are unsure of the accreditation of your qualification please don't progress with preparing any documentation but contact us for clarification at membership@engineersireland.ie or +353 (1) 665 1334. We would urge you to do this to avoid your preparation of any unnecessary documentation.

#### 2.2 How is Phase 1 assessed?

2.2.1 There are a number of ways by which your Phase 1 formation may be assessed:

### (a) You hold an Engineers Ireland accredited bachelor (honours) degree that was awarded in or before 2012. (If not please continue to (b))

If you qualified from an Engineers Ireland accredited bachelor (honours) degree in or before 2012 you will have been notified that you have successfully completed your Phase 1 formation.

You may submit your documentation for your Phase 2 assessment when you are satisfied that you can demonstrate the required competences. This is detailed in Sections 7-10 of these regulations.

OR

### (b) You hold an Engineers Ireland accredited master's degree (if not please continue to (c))

You may provide verified evidence of your completion of an Engineers Ireland accredited master's engineering programme. This may have been achieved through a master's degree programme or the summation of an Engineers Ireland accredited bachelor of engineering (honours) degree plus an Engineers Ireland accredited master's degree programme of one year or more in duration.

If you have already submitted evidence of your accredited master's degree when you joined Engineers Ireland you should have been advised of your successful completion of your Phase 1 formation. If you have not been advised of this please contact the membership team at membership@dengineersireland.ie or +353 (1) 665 1334. We will check your record and will issue a confirmation to you that you have successfully completed Phase 1. If you completed your accredited master's degree since

you joined Engineers Ireland we will need to verify your qualification before we issue a confirmation that you have completed your Phase 1 formation. To do this you should submit verification of your master's, no later than three months prior to the next Phase 2 submission

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### PREPARING YOUR APPLICATION PHASE 1 – GENERAL

deadline. Please refer to Appendix 2 of this document for details on how to verify your qualification.

You may submit your documentation for your Phase 2 assessment when you are satisfied that you can demonstrate the required competences. This is detailed in Sections 7-10 of these regulations.

If your submission is found not to meet the educational standard required for a Chartered Engineer you will be given guidance as to which Phase 1 assessment route is applicable to you.

OR

### (c) You hold a qualification recognised under the Washington Accord\* or the FEANI Index (if not please continue to (d))

If you have a qualification recognised under the Washington Accord, which does not require further learning to a professional title, you will have been notified that you have successfully completed your Phase 1 formation on election to membership of Engineers Ireland.

If you have completed an accredited engineering degree listed on the FEANI index of courses as accepted for the European Engineer (EUR ING) title, and which is greater than four years in duration, you will have been notified that you have successfully completed your Phase 1 formation on election to membership.

You may submit your documentation for your Phase 2 assessment when you are satisfied that you can demonstrate the required competences. This is detailed in Sections 7-10 of these regulations.

OR

(d) You have been previously individually assessed by Engineers Ireland as meeting the educational standard of a Chartered Engineer (if not please continue to (e))

If you have been previously elected as a member of Engineers Ireland (MIEI) through an Engineers Ireland assessment route,\*\* and have been approved as

meeting the equivalent to the educational standard for a Chartered Engineer, and have been so informed, then you have already completed the Phase 1 assessment. You may submit your documentation for your Phase 2 assessment when you are satisfied that you can demonstrate the required competences. This is detailed in Sections 7-10 of these regulations.

If you are unsure of your eligibility please contact the membership team at membership@ engineersireland.ie or +353 (1) 665 1334

OR

(e)

(f)

You hold an Engineers Ireland accredited bachelor of engineering (honours) degree post 2012 plus an unaccredited master's degree in engineering (if not please continue to (f))

If you have successfully completed an Engineers Ireland accredited bachelor of engineering (honours) degree programme, post 2012, plus an add-on unaccredited master's engineering degree programme, you will be required to complete Assessment Route A to assess your Phase 1 formation. Please continue to Section 3 of these regulations for details on Assessment Route A.

OR

You hold an Engineers Ireland accredited bachelor of engineering (honours) degree post 2012 plus further learning equivalent to a master's degree. (If not please continue to (q))

If you have successfully completed an Engineers Ireland accredited bachelor of engineering (honours) degree programme, post 2012, and have completed further learning equivalent to a master's degree, you will be required to complete Assessment Route B to assess your Phase 1 formation. For more information on what is accepted as further learning, or for the details required under Assessment Route B, please see Section 4 of these regulations. In this section you will also find an explanation of the expected outcomes required of your further learning.

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#### PREPARING YOUR APPLICATION

#### PHASE 1 – GENERAL

OR

(g) You have not completed an accredited master's or bachelor of engineering (honours) degree but you have completed learning and development in your career that is equivalent to the learning required for a master's degree (if not please continue to (h)).

If you have successfully completed an Engineers Ireland accredited qualification for the registered professional title of Associate Engineer; or you have completed a qualification in a cognate subject area to engineering; or you have no formal qualifications but have an equivalent educational formation to that of a Chartered Engineer through experiential learning over a period of at least 15 years, you may apply for assessment under the experiential learning route. Full details of the eligibility criteria and submission requirements for the route may be seen in Section 5 of these regulations.

OR

(h) You have achieved the equivalent registered professional title with a professional body with whom Engineers Ireland holds a mutual recognition agreement (if not please continue to (i)).

Engineers Ireland has a wide range of mutual recognition agreements with international professional engineering bodies across the globe. The information you will be required to submit depends on which agreement you are applying through.

For more information you should contact the membership team at membership@ engineersireland.ie or +353 (1) 665 1334.

OR

(i) You hold a registered professional title, or equivalent, awarded in the European Union (EU).

Under EU Directives on recognition of professional qualifications, you may have successfully completed an engineering qualification substantially equivalent

to a master's engineering degree, accredited by Engineers Ireland.

This is a specific application route. Please see the Regulations under the EU Directive 2005/36/EC on our website, www.engineersireland.ie/passport.

2.2.2 Once you have successfully completed the Phase 1 formation assessment relevant to you, you will be notified that you may proceed to apply for your Phase 2 formation assessment. You must receive confirmation of your successful completion of Phase 1 formation before you can apply for the Phase 2 formation assessment.

- For a complete list of Washington Accord signatories see www.washingtonaccord.org.
- \*\* Achieving the registered professional title of Chartered Engineer on the basis of (d) (i) does not automatically make you eligible to apply for the award of the equivalent title with another professional body through one of our mutual recognition agreements (i.e., without being required to undertake a professional review in that professional body).

### **SECTION THREE**

### PREPARING YOUR APPLICATION PHASE 1 – ASSESSMENT ROUTE A

NOTE: Please read this section only if you have been guided to it in Section 2 of this document, or from the website.

#### 3.1 Eligibility

- 3.1.1 You are eligible to apply through this route if you have qualified from an engineering programme accredited by Engineers Ireland as requiring further learning to meet the educational standard required of a Chartered Engineer. This is normally, but not always, at Level 8 on the Irish NFQ. In addition to that you have completed, at a minimum, an unaccredited master's degree in an engineering discipline. This route also applies to you if you have a degree awarded by the Engineering Council UK, under the Washington Accord, as requiring further learning.
- 3.1.2 Your unaccredited master's degree should be at Level 9 on the Irish NFQ. To apply under this route the master's degree must be in engineering.
  - If you are unsure if your degree qualifies for this route please contact the membership team at membership@engineersireland.ie or +353 [1] 665 1334.
- 3.1.3 You must be a member of Engineers Ireland before applying for this assessment.
- 3.1.4 There is no specific duration of time required prior to your application for Phase 1 assessment. You should apply for Phase 1 assessment when you are wholly satisfied that you can demonstrate evidence of the further learning required. It is advised, however, that this is normally at least a year after graduation from your bachelor qualification.

#### 3.2 Purpose

3.2.1 The purpose of this assessment route is to ensure that you can demonstrate achievement of the educational standard required of a Chartered Engineer. You have completed an accredited qualification requiring further learning to complete the educational formation of a Chartered Engineer. This means you have demonstrated a significant proportion of the required educational standard. This assessment will determine if you have

achieved the additional learning criteria expected beyond that of your bachelor of engineering (honours) degree.

3.2.2 The additional learning criteria expected, over and above those you achieved in your bachelor of engineering (honours) degree, are detailed in this section. Under each criterion guidance is given to assist you to best demonstrate your achievement of the required further learning.

Please note that this guidance is given to assist you in your application; it is not a checklist.

It is quite likely that you will not be able to demonstrate evidence of each of the statements/questions but you should be able to demonstrate sufficient evidence of learning within each of the criterion.

#### **FURTHER LEARNING CRITERIA**

#### Criterion 1: Design

You must demonstrate how you have deepened your technical understanding by your ability to design and experiment with the application of a range of standard and specialised research tools and techniques.

- Show your understanding of experimental methods and how their application can lead to new knowledge and insights in an organised way.
- Show how you have extracted information pertinent to a non-routine problem through a literature search or experimentation.
- Discuss how you have designed and conducted experiments or experimental processes to analyse and interpret data.
- Show how you have critically evaluated problems and acquired new insights in your branch of engineering.
- Design is at the heart of engineering. Show how you have developed your contribution to the creative process of problem solving in design.

### **SECTION THREE**

#### PREPARING YOUR APPLICATION

#### PHASE 1 – ASSESSMENT ROUTE A

#### Criterion 2: Broadening of expertise

You must demonstrate how you have been involved in multidisciplinary projects which required you to draw upon technologies and/or expertise outside of your field.

#### Guidance:

- Show how in both your research and design you have had the opportunity to be involved in multidisciplinary projects.
- Show how you have recognised and made use of interactions between engineering technologies and those associated with other professions or disciplines.
- Show how you have consulted and worked with experts in various fields to progress your projects.
- Show how you understand group dynamics and your ability to lead in your projects.

#### Criterion 3: Commercial awareness

You must demonstrate how you have developed your commercial awareness.

#### Guidance:

- Show how you have explored the various steps between idea or concept development and reaching the marketplace.
- Show how in your research and design you have developed your awareness of marketplace applicability including the areas of business planning and technology transfer.

#### 3.3 Preparing your application

3.3.1 Completing the application for Assessment Route A contains the following parts:

#### i) Applicant's details

#### ■ Declaration:

You should read the declarations carefully before progressing. This is an essential part of your application and will be kept on your record for the term of your membership. Please be aware that regular spot checks are made for plagiarism and such professional

misconduct is in breach of the Engineers Ireland Code of Ethics.

#### Your personal and employment details:

This is to ensure we have the correct information to contact you during this application process.

#### Education details:

This is to ensure we have the most up to date information on your qualification details. You may have attained additional qualifications since your election to membership. If you have not submitted verification of your further qualifications, please submit verified copies to membership@engineersireland.ie. Full details on how to verify qualifications can be found in Appendix 2.

#### Areas of expertise:

This is to ensure that the peers reviewing your application have experience as closely related to your area of expertise as possible. Please take time to consider this part of the application.

#### ii) Diploma supplement

You are required to provide a completed diploma supplement (DS) for your unaccredited master's degree in the format of the Irish National DS template. The DS should be completed by the provider of your qualification in the English language.

You are not required to provide a DS for your accredited bachelor of engineering (honours) degree.

The DS should clearly indicate the European Credit Transfer System (ECTS) credits for each module or subject listed within the form.

If you completed your master's degree outside of the EU you may provide verified transcripts from your qualification in the English language. The transcripts should indicate the number of hours spent on each subject area listed.

#### iii) Proof of qualification equivalence to NFQ Level 9

If you completed your qualification outside the Republic of Ireland you are required to provide proof of your master's degree qualifications equivalence to Level 9 on the Irish NFQ. This can be done by contacting Quality Qualifications Ireland (QQI) directly.

### **SECTION THREE**

### PREPARING YOUR APPLICATION PHASE 1 – ASSESSMENT ROUTE A

#### iv) Master of Engineering thesis (or project)

You must provide a copy of your full master of engineering thesis in the English language. If your master's programme does not include a thesis but a collection of assessed project work, you should submit this documentation instead. If you are unsure that this meets the requirements for your application please contact the membership team to discuss at membership@ engineersireland.ie or +353 (1) 665 1334.

This documentation should be submitted in electronic format with an abstract and should be presented in a professional report format including a cover page, table of contents, page numbers and a glossary of terms.

#### v) Statements of formation

You should provide statements of your formation under each of the three further learning criteria detailed in Section 3.2.2. These statements should be no greater than 500 words and should detail how you can demonstrate that you have attained the required learning. To assist in your preparation the attributes normally associated with each of the learning criteria are also listed in Section 3.2.2 and further guidance is offered in the Phase 1 Learning Criteria Guidance Notes.

When writing your formation statements you should provide clear examples of how you have developed the learning required. You should include details of projects in which you have played a role, explaining your actual involvement and work, and how these have contributed to your Phase 1 formation. You should complete your statement of formation within the Phase 1 Assessment Route A application. Your statements need to be concise, ensuring your argument is clear and easy to understand. Don't give just an account of what you have done since you graduated from your bachelor degree; only include solid examples that show you have developed the required learning. They should be completed in English and you should write in the first person, using 'I' instead of 'we' or 'the team' (e.g. I designed it, I was responsible for etc.).

You should also complete the Career Summary table

provided with details of any roles you have held since you completed your bachelor degree.

#### vi) Supporter

You are required to have your application validated by a Chartered Engineer with Engineers Ireland.

The Chartered Engineer should be familiar with all or part of your formation as an engineer and may be a supervising academic to your master's degree. The supporter should read your submission prior to confirming support, at least one month in advance of your submission deadline. This will allow adequate time should your supporter give you feedback on your application.

In exceptional circumstances, Engineers Ireland will consider alternative arrangements, where, because of the nature of your employment you cannot provide a Chartered Engineer as a supporter. If this applies to you, you must contact the membership team to discuss this option at least two months before you submit your application.

Family members may not support your application.

#### 3.4 Submitting your application

- 3.4.1 Engineers Ireland invites submissions of applications for Phase 1 Assessment Route A by the last Friday in January or the last Friday in June. Applications through these regulations will be accepted in electronic format only through the members' area of the Engineers Ireland website.
- 3.4.2 Payment of your assessment fee must be made at the time of submission. Details of fees may be found at www.engineersireland.ie/rates.
- 3.4.3 The procedure for processing your application is described in detail in Section 6.

### **SECTION FOUR**

#### PREPARING YOUR APPLICATION

#### PHASE 1 – ASSESSMENT ROUTE B

NOTE: Please read this section only if you have been guided to it in Section 2 of this document, or from the website.

#### 4.1 Eligibility

- 4.1.1 You are eligible to apply through this route if you have qualified from an engineering programme accredited by Engineers Ireland as requiring further learning to meet the educational standard required of a Chartered Engineer. This is normally, but not always, at Level 8 on the Irish NFQ. In addition to that you have completed a range of CPD and further learning that, combined, is substantially equivalent to the learning outcomes of an accredited master's degree in engineering. This route also applies to you if you have a degree awarded by the Engineering Council UK, under the Washington Accord, as requiring further learning.
- 4.1.2 Your further learning might include (this is not an exhaustive list):
  - the completion of a full master's in another subject area (e.g., Master of Business Administration (MBA), Project Management), etc.
  - the completion of modules of further study at Level 9 on the Irish NFQ (e.g., the Future Professionals Series with Engineers Ireland, Project Management, a Level 9 diploma in an engineering subject area such as environmental or energy engineering).
  - the completion of relevant CPD training or certification.
  - the involvement in a mentor-mentee relationship leading to development of knowledge required.
  - the completion of engineering research in the workplace, which has facilitated your development of the further learning required at master's degree level.
- 4.1.3 You must be a member of Engineers Ireland before applying for this assessment.
- 4.1.4 There is no specific duration of time required prior to your application for Phase 1 assessment. You should apply for Phase 1 assessment when you are wholly satisfied that you can demonstrate evidence

of the further learning required. It is advised, however, that this is normally at least a year after graduation from your bachelor qualification.

#### 4.2 Purpose

- 4.2.1 The purpose of this assessment route is to ensure that you can demonstrate achievement of the educational standard required of a Chartered Engineer. You have completed an accredited qualification requiring further learning to complete the educational formation of a Chartered Engineer. This means you have demonstrated a significant proportion of the required educational standard. This assessment will determine if you have achieved the additional learning criteria expected beyond that of your bachelor of engineering (honours) degree.
- 4.2.2 The additional learning criteria expected, over and above those you achieved in your bachelor of engineering (honours) degree, are detailed in this section. Under each criterion guidance is given to assist you to best demonstrate your achievement of the required further learning.

Please note that this guidance is given to assist you in your application; it is not a checklist.

It is quite likely that you will not be able to demonstrate evidence of each of the statements/questions but you should be able to demonstrate sufficient evidence of learning within each of the criterion.

#### FURTHER LEARNING CRITERIA

#### Criterion 1: Design

You must demonstrate how you have deepened your technical understanding by your ability to design and experiment with the application of a range of standard and specialised research tools and techniques.

#### Guidance:

Show your understanding of experimental methods and

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### PREPARING YOUR APPLICATION PHASE 1 – ASSESSMENT ROUTE B

how their application can lead to new knowledge and insights in an organised way.

- Show how you have extracted information pertinent to a non-routine problem through a literature search or experimentation.
- Discuss how you have designed and conducted experiments or experimental processes to analyse and interpret data.
- Show how you have critically evaluated problems and acquired new insights in your branch of engineering.
- Design is at the heart of engineering. Show how you have developed your contribution to the creative process of problem solving in design.

#### Criterion 2: Broadening of expertise

You must demonstrate how you have been involved in multidisciplinary projects which required you to draw upon technologies and/or expertise outside of your field.

#### Guidance:

- Show how in both your research and design you have had the opportunity to be involved in multidisciplinary projects.
- Show how you have recognised and made use of interactions between engineering technologies and those associated with other professions or disciplines.
- Show how you have consulted and worked with experts in various fields to progress your projects.
- Show how you understand group dynamics and your ability to lead in your projects.

#### Criterion 3: Commercial awareness

You must demonstrate how you have developed your commercial awareness.

#### Guidance:

- Show how you have explored the various steps between idea or concept development and reaching the marketplace.
- Show how in your research and design you have developed your awareness of marketplace applicability including the areas of business planning and technology transfer.

#### 4.3 Preparing your application

4.3.1 Completing the application for Assessment Route B contains the following parts:

#### i) Applicant's details

#### Declaration:

You should read the declarations carefully before progressing. This is an essential part of your application and will be kept on your record for the term of your membership.

Please be aware that regular spot checks are made for plagiarism and such professional misconduct is in breach of the Engineers Ireland Code of Ethics.

#### ■ Your personal and employment details:

This is to ensure that we have the correct information to contact you during this application process.

#### Education details:

This is to ensure that we have the most up-to-date information on your qualification details. You may have attained additional qualifications since your election to membership.

If you have not submitted verification of your further qualifications, please submit verified copies to membership@engineersireland.ie. Full details on how to verify qualifications can be found in Appendix 2.

#### Areas of expertise:

This is to ensure that the peers reviewing your application have experience as closely related to your area of expertise as possible. Please take time to consider this part of the application.

#### ii) Education and CPD statement:

You are required to provide a summary of your academic achievements since your qualification from your bachelor of engineering (honours) degree programme.

Where possible you should provide transcripts of any additional qualifications you include in the education and CPD statement. These should be provided in the English language.

You are required to provide a summary of your CPD and to provide certification of CPD, where possible.

### SECTION FOUR

#### PREPARING YOUR APPLICATION

#### PHASE 1 – ASSESSMENT ROUTE B

You may include CPD and personal development records from an employer. These should be signed by either the HR department or a supervisor.

#### iii) Statements of formation

You should provide statements of your formation under each of the three further learning criteria detailed in Section 4.2.2. These statements should be no greater than 1,200 words each and should detail how you can demonstrate that you have attained the required learning. The principal objective of the statements is to demonstrate to the Phase 1 Assessment Panel that you have satisfied the three additional learning criteria. Remember the question you are being asked is whether you have acquired the learning identified in Section 4.2.2; your statements of formation should answer that question clearly for your assessor. They should clearly demonstrate your understanding of engineering principles and how you have deepened your knowledge and development beyond that achieved in your accredited bachelor of engineering (honours) degree. You should familiarise yourself with Section 4.2.2 first and use the guidance questions to assist you in identifying the best examples within your further learning to clearly demonstrate your achievement of the additional learning criteria.

When writing your statements you should reference the criteria throughout with clear examples of how, through your further education/training/development, you have developed and expanded your engineering knowledge to the level required. You should keep your application concise, ensuring your argument is clear and easy to understand, as would be expected of a master's degree graduate. Don't give just an account of what you have done since you graduated; only include those examples that show you have developed the additional learning criteria. To assist in your preparation the attributes normally associated with each of the learning criteria are also listed in Section 4.2.2 and further guidance is offered in the Phase 1 Learning Criteria Guidance Notes.

You should complete your statements of formation within the Assessment Route B application. They should be completed in English and you should write in the first person, using 'I' instead of 'we' or 'the team' (e.g. I designed it, I was responsible for etc.). Appendices may be submitted in addition to the application form but should be limited to 10 A4 pages maximum.

You should also complete the Career Summary table provided with details of any roles you have held since you completed your bachelor degree.

#### iv) Supporter

You are required to have your application validated by a Chartered Engineer with Engineers Ireland.

The Chartered Engineer should be familiar with all or part of your formation as an engineer and may be a supervising academic or engineer within your employment. The supporter should read your submission prior to confirming support, at least one month in advance of your submission deadline. This will allow adequate time should your supporter give you feedback on your application.

In exceptional circumstances, Engineers Ireland will consider alternative arrangements, where, because of the nature of your employment you cannot provide a Chartered Engineer as supporter. If this applies to you, you must contact the membership team to discuss this option at least two months before you submit your application.

Family members may not support your application.

#### 4.4 Submitting your application

- 4.4.1 Engineers Ireland invites submissions of applications for Phase 1 Assessment Route B by the last Friday in January or the last Friday in June. Applications through these regulations will be accepted in electronic format only through the members' area of the Engineers Ireland website.
- 4.4.2 Payment of your assessment fee must be made at the time of submission. Details of fees may be found at www.engineersireland.ie/rates.
- 4.4.3 The procedure for processing your application is described in detail in Section 6.

#### PREPARING YOUR APPLICATION

#### PHASE 1 – EXPERIENTIAL LEARNING ROUTE

NOTE: Please read this section only if you have been guided to it in Section 2 of this document, or from the website.

5.1 Eligibility

- 5.1.1 You are eligible to apply under this route if you have:
  - qualified from an engineering programme accredited by Engineers Ireland as meeting the educational standard required of an Associate Engineer and have over 10 years' engineering work experience. This is normally, but not always, at Level 7 on the Irish NFQ.

OR

the registered professional title of Associate Engineer and have seven years' work experience post achievement of the title.

OR

qualified with an unaccredited qualification at Level 8 or higher, and have over eight years' engineering work experience.

OR

- no formal qualifications but you have over 15 years of responsible experience in charge of significant engineering work.
- 5.1.2 You must be a member of Engineers Ireland before applying for this assessment.
- 5.1.3 You will, through a combination of work experience, CPD and additional qualification modules, have achieved the equivalent academic outcomes to the educational standard required for a Chartered Engineer.
- 5.1.4 While guidance timelines are given it is advised that the greater the shortfall in your formal educational development the longer the period of experience likely to be required. This will be taken into account when your

application is reviewed by the Membership and Qualifications Board (MQB).

#### 5.2 Approval to proceed

- 5.2.1 You are required to receive approval from the MQB to proceed with the Phase 1 Experiential Learning Route application. You should not prepare any of the Phase 1 Experiential Learning Route application requirements until this approval has been granted by the MQB.
- 5.2.2 To achieve this approval you will be required to submit a 1,400 word statement plus a CV, transcripts of any unaccredited qualifications or certified CPD you have completed and the assessment fee to the MQB.
- 5.2.3 The statement should be divided into 200 word segments providing a brief synopsis of how your development to date has enabled your achievement of each of the seven learning criteria identified in Section 5.3.2. This statement is essentially a summarised version of the full application report required of you if you are approved to proceed to the Phase 1 Experiential Learning Route assessment. The statement should be short and concise with clear examples and evidence of the required learning criteria. Remember it is your learning and knowledge that is being assessed at this stage, not your competence as a professional engineer.
- 5.2.4 The MQB will assess your application. The board meets monthly with the exception of August. The possible outcomes are: you will be permitted to proceed; you will be advised that you are eligible for a route to another registered professional title; or, you will be advised that you require more development time.
- 5.2.5 If you are permitted to proceed you will be advised that you may apply at the next submission deadline. The details for preparing your application are given in the remainder of this section and in Section 6. You will be offered the opportunity to be assigned a mentor at this point. You may decide to appoint your own informal mentor or to continue with a mentor appointed by

#### PREPARING YOUR APPLICATION

#### PHASE 1 - EXPERIENTIAL LEARNING ROUTE

Engineers Ireland. You will be asked to confirm back to the membership team if you require the mentor or not. If you decide to proceed with an assigned mentor you will be informed of their contact details and the onus will be on you to ensure that you maintain contact with the mentor. You will be asked to confirm that you were in contact with your mentor and that they reviewed your application prior to its submission. The mentor will have no input to the assessment process or the final decision. Previous experiential learning candidates have valued the input of this relationship to their preparation.

- 5.2.6 If you are advised that you should progress to another registered professional title you will also be advised on how to proceed.
- 5.2.7 If you are advised that you require more development time, the MQB will note to you the deficits highlighted in your submission to assist you in future applications and your development in the interim.

#### 5.3 Purpose of the Phase 1 Experiential Learning Route

- 5.3.1 The purpose of this assessment route is to ensure that although you do not hold an Engineers Ireland accredited master's degree in engineering you can demonstrate achievement of the educational standard required of a Chartered Engineer through experiential learning.
- 5.3.2 The following lists the academic criteria normally achieved by a graduate of an accredited master's degree of engineering. Under each criterion guidance is given to assist you to best demonstrate your achievement of the required experiential learning.

Please note that this guidance is given to assist you in your application; it is not a checklist.

It is quite likely that you will not be able to demonstrate evidence of each of the statements/questions but you should be able to demonstrate sufficient evidence of learning within each of the criterion.

#### **EXPERIENTIAL LEARNING CRITERIA**

#### Criterion 1: Knowledge

You must demonstrate your knowledge and understanding of the mathematics, sciences, engineering sciences and technologies underpinning your branch of engineering.

#### Guidance:

- Demonstrate your knowledge and understanding of the principles, concepts, limitations and range of applicability of established mathematical tools and methods.
- Demonstrate your knowledge and understanding of the theory and related assumptions underpinning the engineering sciences relevant to your engineering discipline.
- Demonstrate your knowledge and understanding of a wide range of engineering materials, processes and components.
- Demonstrate your knowledge and understanding of related developing technologies and how they might impinge upon your branch of engineering.

#### Criterion 2: Solving problems

You must demonstrate your ability to identify, formulate, analyse and solve engineering problems.

- Demonstrate your ability to integrate your knowledge to allow you to handle complexity and formulate judgements with incomplete or limited information.
- Show how you have created models or scenarios by deriving appropriate equations and by specifying boundary conditions and underlying assumptions and limitations.
- Show how you have identified and used appropriate mathematical methods and applied them to non-routine and ill-defined engineering problems.

#### PREPARING YOUR APPLICATION

#### PHASE 1 – EXPERIENTIAL LEARNING ROUTE

- Show how you have identified, classified and described the performance of systems and components using analytical methods and modelling techniques.
- Show how you have used or developed software tools including numerical techniques to solve engineering problems.

#### Criterion 3: Design

You must demonstrate your ability to design components, systems or processes to meet specific needs.

#### Guidance:

- Demonstrate your knowledge and understanding of design processes and techniques and your ability to apply them in unfamiliar situations.
- Demonstrate your ability to apply design methods to unfamiliar, ill-defined problems, possibly involving other disciplines.
- Show how you have investigated and defined a need and identified constraints including environmental and sustainability limitations, health and safety and risk assessment issues.
- Demonstrate your knowledge and understanding of codes of practice and industry standards, and the need for their application.
- Demonstrate your ability to redesign products, processes or systems in order to improve productivity, quality, safety and other desired needs.

#### Criterion 4: Research

You must demonstrate your ability to design and conduct experiments, and to apply a range of standard and specialised research tools and techniques.

#### Guidance:

Show how you have extracted, through literature search or experiment, information pertinent to a non-routine problem.

- Show how you have designed and conducted experiments, and analysed and interpreted data.
- Demonstrate how you have critically evaluated current problems and new insights at the forefront of your particular branch of engineering.
- Show how you have incorporated aspects of engineering outside of your own discipline, including consulting and working with experts in other fields.
- Show how you have contributed to the development of scientific/technological knowledge in one or more areas of your engineering discipline.

#### Criterion 5: Ethics

You must demonstrate your understanding of the need for high ethical standards in the practice of engineering, including the responsibilities of the engineering profession towards people and the environment.

- Demonstrate your ability to reflect on social and ethical responsibilities linked to the application of your professional knowledge and judgements.
- Demonstrate your knowledge and understanding of the social, environmental, ethical, economic, financial, institutional and commercial considerations affecting the exercise of your engineering discipline.
- Demonstrate your knowledge and understanding of the health, safety and legal issues and responsibilities in your engineering practice, and the impact of your engineering solutions in a societal and environmental context.
- Demonstrate your knowledge and understanding of the importance of the engineer's role in society, and the need for the highest ethical standards of practice.
- Demonstrate your knowledge and understanding of the framework of relevant legal requirements governing engineering activities, including personnel, environmental, health, safety and risk issues.

#### PREPARING YOUR APPLICATION

#### PHASE 1 - EXPERIENTIAL LEARNING ROUTE

#### Criterion 6: Teamwork and CPD

You must demonstrate your ability to work effectively as an individual, in teams and in multidisciplinary settings, together with the capacity to undertake lifelong learning.

#### Guidance:

- Demonstrate your ability to recognise and make use of the interactions between the engineering technologies and those of other disciplines and professions.
- Show how you have consulted and worked with experts in various fields in the realisation of a product or system.
- Demonstrate your knowledge and understanding of the respective functions of technicians, technologists and engineers, and how they together constitute the engineering
- Demonstrate your knowledge and understanding of group dynamics and ability to exercise leadership.
- Show how you have planned and completed self-directed CPD to improve your knowledge and competence.
- Demonstrate your knowledge and understanding of concepts from a range of areas outside engineering.

#### Criterion 7: Communication skills

You must demonstrate your ability to communicate effectively with the engineering community and with society at large.

#### Guidance:

- Show how you have selected and applied appropriate communication tools in order to create deeper understanding and maximum impact on a given audience.
- Show how you have described succinctly the relevant advantages and disadvantages of a technology to a lay audience.
- Demonstrate how you have communicated effectively in public.
- Demonstrate that you have written technical papers and reports, and synthesised your own work and that of others in abstracts and executive summaries.
- Show your understanding of the training needs of others in appropriate engineering techniques.

#### 5.4 Preparing your application

5.4.1 Completing the application for the Experiential Learning Route contains the following parts:

#### i) Applicant's details

#### Declaration:

You should read the declarations carefully before progressing. This is an essential part of your application and will be kept on your record for the term of your membership.

Please be aware that regular spot checks are made for plagiarism and such professional misconduct is in breach of the Engineers Ireland Code of Ethics.

#### ■ Your personal and employment details:

This is to ensure that we have the correct information to contact you during this application process.

#### Education details:

This is to ensure that we have the most up-to-date information on your qualification details. You may have attained additional qualifications since your election to membership.

Please submit verified copies of new qualifications to membership@engineersireland.ie . Full details on how to verify qualifications can be found in Appendix 2.

#### Areas of expertise:

This is to ensure that the peers reviewing your application have experience as closely related to your area of expertise as possible. Please take time to consider this part of the application.

#### ii) Education and CPD statement:

You are required to provide a summary of your academic achievements, if applicable.

Where possible you should provide transcripts of any additional qualifications you include in the education and CPD statement. These should be provided in the English language.

You are required to provide a summary of your CPD completed and certification of CPD where possible. You may include CPD and personal development records from an employer. These should be signed by either the HR department or a supervisor.

#### PREPARING YOUR APPLICATION

#### PHASE 1 – EXPERIENTIAL LEARNING ROUTE

#### iii) Experiential learning statements of formation

Your statements of formation should demonstrate how you have achieved the knowledge and understanding of engineering principles that would normally be expected of the holder of an Engineers Ireland accredited master's degree in engineering. The knowledge and understanding are defined by the learning criteria identified in Section 5.3.2. Essentially your assessors will be using your statements to determine if you have satisfied these learning criteria. Remember the question you are being asked is have you acquired the learning identified; your statements of formation should answer that question clearly for your assessor.

You should provide statements of your formation under each of the learning criteria detailed in Section 5.3.2. These statements should be no greater than 1,400 words each and should detail how you can demonstrate that you have attained the required learning. It should provide a basis for a critical evaluation of your knowledge to function as a professional engineer in that area. You should familiarise yourself with Section 5.3.2 first and use the guidance questions to assist you in identifying the best examples within your development to clearly demonstrate your achievement of the learning criteria. When writing your statements you should reference the criteria throughout with clear examples of how, through your career/education/training/development, you have developed your engineering knowledge to the level required. You should keep your application concise, ensuring your argument is clear and easy to understand, as would be expected of a master's degree graduate. Don't give just an account of what you have done since you graduated; only include those examples that show you have developed the additional learning criteria.

To assist in your preparation the attributes normally associated with each of the learning criteria are also listed in Section 5.3.2 and further guidance is offered in the Phase 1 Learning Criteria Guidance Notes.

You should complete your statements of formation within the Experiential Learning application. They should be completed in English and you should write in the first person, using 'I' instead of 'we' or 'the team' (e.g. I designed it, I was responsible for etc.). Appendices may be submitted in addition to the application form but should be limited to 15 A4 pages maximum.

You should also complete the Career Summary table provided with details of any roles you have held during your career.

#### iv) Supporters

You are required to have your application validated by two Chartered Engineers with Engineers Ireland.

The Chartered Engineers should be familiar with all or part of your formation as an engineer. Each supporter should read your submission prior to confirming support, at least one month in advance of your submission deadline. This will allow adequate time should your supporters give you feedback on your application.

In exceptional circumstances, Engineers Ireland will consider alternative arrangements, where, because of the nature of your employment, you cannot provide two Chartered Engineers as supporters. If this applies to you, you must contact the membership team to discuss this option at least two months before you submit your application.

Family members may not support your application.

#### 5.5 Submitting your application

- 5.5.1 Engineers Ireland invites submissions of applications for the Phase 1 Experiential Learning Route by the last Friday in January or the last Friday in June. Applications through these regulations will be accepted in electronic format only through the members' area of the Engineers Ireland website.
- 5.5.2 Payment of your assessment fee must be made at the time of submission. Details of fees may be found at www.engineersireland.ie/rates.
- 5.5.3 The procedure for processing your application is described in detail in Section 6.

### **SECTION SIX**

#### PREPARING YOUR APPLICATION

#### PHASE 1 – ASSESSMENT PROCESS

NOTE: Please read this section only if you have completed applications under Section 3-5.

#### 6.1 Assessment procedure

- 6.1.1 The Phase 1 Assessment Panel and your assessors are drawn from a panel of professional interviewers and accreditation panellists of Engineers Ireland. Accreditation panellists are members of Engineers Ireland who are responsible for the accreditation of university and institute of technology engineering programmes in Ireland. The assessment panel ultimately reports to the MQB.
- 6.1.2 All documentation for Phase 1 Assessment (Assessment Route A, B and the Experiential Learning Route) will be presented to the Phase 1 Assessment Panel within eight weeks of the submission deadline. You may be required to submit additional information based on the initial assessment of your submission. Normally, if the panel is satisfied that your written documentation broadly meets the learning criteria defined, you will be invited to attend an assessment interview. You should note that progression to the assessment interview does not mean that your application is deemed as successful. The outcome of your application will depend on the full assessment of both your written submission and interview.
- 6.1.3 In exceptional circumstances the panel may determine that you have demonstrated your achievement of Phase 1 formation based on your written submission alone. In this case you will not be required to attend for interview and will be notified that you have successfully completed the Phase 1 assessment.
- 6.1.4 The panel may determine on assessment of either or both of your written submission or assessment interview that your learning does not meet the criteria required. In this case you will be informed of the deficits the panel identified in your submission; this is done to assist you in your future development and any further

applications for assessment.

6.1.5 If you are required to attend an assessment interview it will take place within the six-month period following your application deadline.

You will be interviewed by a panel of a minimum of two members of Engineers Ireland. The chair of the panel will be a senior engineering academic or accreditation panellist. The second member of the panel will be a Chartered Engineer from your engineering subject area. The panel will be responsible for assessing if you have demonstrated the required learning criteria relevant to your application route.

6.1.6 The duration and format of your interview

Assessment interviews are held either at the offices or in regional branches of Engineers Ireland, as appropriate. A video interview can be organised upon request in exceptional circumstances. You should contact us when submitting your application if you would like to acquire approval to progress with this style of interview. If it is approved by the MQB you should note that any additional costs for the interview must be borne by the candidate.

You will be asked to produce photographic identification, such as a passport or driving licence. The interview will normally last between 30 and 60 minutes. You will be given five minutes at the start of the interview in which to give an uninterrupted verbal presentation. No presentation equipment should be used. You should use these five minutes to give a brief overview of how you meet the learning criteria required.

The panel will then question you in relation to the content of your application, focusing on the learning criteria identified in your assessment route (i.e., Section 3.2.2, Section 4.2.2 or Section 5.3.2).

You will be given the opportunity by the panel at the end of the session to ask questions.

All the assessors are bound by the Council of Engineers Ireland and the Code of Ethics to maintain complete confidentiality in relation to all aspects of the assessment.

### **SECTION SIX**

### PREPARING YOUR APPLICATION PHASE 1 – ASSESSMENT PROCESS

#### 6.2 Notification of result

- 6.2.1 The recommendation from your assessment interview will be presented to the Phase 1 Assessment Panel. At this time both the assessment of your written documentation and your assessment interview will be considered by the Panel.
- 6.2.2 If you are successfully approved by the Phase 1
  Assessment Panel you will be notified within two weeks
  of the decision meeting.
- 6.2.3 If your application is unsuccessful you will be given the reasons for the result and advice as to what you must do to make up any deficit before reapplying for a Phase 1 assessment.
- 6.2.4 When you are notified of your successful achievement of Phase 1 formation you will also be notified as to when you may proceed with your application for Phase 2 assessment.
- 6.2.5 Phase 2 Assessment requirements and the competences of a Chartered Engineer are described in detail in Sections 7-10 of these regulations.

### **SECTION SIX**

### PREPARING YOUR APPLICATION PHASE 1 – ASSESSMENT PROCESS





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### SECTION SEVEN

### PREPARING YOUR APPLICATION PHASE 2 - INITIAL PROFESSIONAL DEVELOPMENT

NOTE: Please ensure that you have confirmed your successful completion of your Phase 1 formation prior to completing your application for Phase 2 assessment.

#### 7.1 General

- 7.1.1 Your IPD commences from the time at which you qualified with the required educational standard of a Chartered Engineer. Your IPD will consist of both training and responsible experience. This will continue throughout your engineering career but as you become more experienced it is expected that you will have more responsibility within your role.
- 7.1.2 During your IPD you will develop the required competences of a Chartered Engineer.

#### 7.2 Training you should undertake

- Training is essentially the monitored and/or mentored application of the engineering knowledge you have gained in Phase 1 of your formation as a Chartered Engineer. During your training you will develop and improve technical and other skills, aided by appropriately competent people who will provide advice or counselling to you in order to improve or correct your performance and behavioural standards.
- The early stages of your IPD may involve a planned structured approach through a company's own graduate training scheme. Alternatively, especially if you are working in a small company or one which does not employ a large number of professional engineers, the approach will be more informal. It is recommended that any candidate beginning Phase 2 of their formation as a Chartered Engineer should actively seek, throughout their IPD, advice and guidance from a Chartered Engineer.
- Irrespective of your training environment, the primary concern of Engineers Ireland is that training should enable you to learn how to apply engineering principles to the solution of problems in the workplace.
- Graduate training is provided by certain companies as part of a structured approach to training and

- graduate development. A list of Engineers Ireland CPD Accredited Employers is provided on our website.
- The Engineers Ireland Future Professionals Series offers the CPD certificate and diploma in professional engineering to provide an opportunity for structured advancement to graduates through two strands of intense and challenging professional development aligned to their deepening technical experience

#### 7.3 Experience you should acquire and CPD

- The second element of your IPD is your responsible experience of professional engineering practice. The proportion of your time spent in professional practice as opposed to training will obviously increase as you develop engineering competences.
- Engineers Ireland recommends candidates for the Chartered Engineer title to have a minimum of three years' work experience post achievement of the Phase 1 formation, and to have spent at least two years of the IPD period in responsible charge of significant engineering work.
- A fundamental part of your professional engineering career is your CPD. This is discussed in more detail in Section 8.

#### 7.4 Other experience which can form part of your IPD

- If you have completed full-time research work leading to a PhD degree and involving significant engineering work this period may be accepted within your IPD period.
- If you have been working as an Associate Engineer prior to qualifying as a professional engineer, Engineers Ireland may accept up to a maximum of one year of the IPD period as having been satisfied by that experience.

#### 7.5 Assessment of Phase 2 – IPD

- 7.5.1 You are required to submit an application to Engineers
  Ireland to facilitate the assessment of your Phase 2
  formation. The application will include seven parts:
  - Your details and declarations

### **SECTION SEVEN**

### PREPARING YOUR APPLICATION PHASE 2 – INITIAL PROFESSIONAL DEVELOPMENT

- Your areas of expertise
- Your competence statements
- Your career summary report
- Your CPD and future development statement
- Your two essays
- Your supporter's declaration
- 7.5.2 Each of the above component parts of your application and submission details are described in detail in Sections 8-9.
- 7.5.3 You should note that spelling, syntax and grammar are important throughout your application. Applications with errors in this regard will be deemed unsuccessful. You will not be permitted to resubmit your application until the next deadline.
- 7.5.4 Throughout your application you should ensure that you emphasise your personal contribution and responsibility. Refrain from over emphasising what your organisation/team was responsible for concentrate on your own role.
- 7.5.5 The assessment criteria for Chartered Engineer applications are discussed in detail in Section 10.

### PREPARING YOUR APPLICATION PHASE 2 - INITIAL PROFESSIONAL DEVELOPMENT

#### 8.1 Introduction

This section contains information on the details required for your application as follows:

- ▶ 8.2 Applicant details
- ▶ 8.3 Competences of a Chartered Engineer and competence statements
- ▶ 8.4 Career summary report
- ▶ 8.5 CPD and future development statement
- ▶ 8.6 Essays
- ▶ 8.7 Your supporters

You must be a member of Engineers Ireland and have received confirmation of your successful completion of your Phase 1 formation before applying for your Phase 2 assessment to achieve the registered professional title of Chartered Engineer.

#### 8.2 Applicant details

#### ■ Declaration:

You should read the declarations carefully before progressing. This is an essential part of your application and will be kept on your record for the term of your membership.

You should be aware that regular checks are made for plagiarism and that such professional misconduct is in breach of the Engineers Ireland Code of Ethics.

#### ■ Your personal and employment details:

This is to ensure that we have the correct information to contact you during this application process.

#### ■ Education details:

This is to ensure that we have the most up-to-date information on your qualification details. You may have attained additional qualifications since your election to membership or since you completed your Phase 1 assessment. If you have not submitted verification of your further qualifications, please submit verified copies to membership@ engineersireland.ie. Full details on how to verify qualifications can be found in Appendix 2.

#### ■ Areas of expertise:

This is to ensure that the peers reviewing your application have experience as closely related to

your area of expertise as possible. Please take time to consider this part of the application.

### 8.3 Competences of a Chartered Engineer and competence statements

#### 8.3.1 What is competence?

- Competence is the proven ability to do something effectively. Your professional competence as an engineer is your ability to apply and extend your skills and knowledge of engineering principles to solve non-routine problems in a safe, effective and ethical way.
- The European Quality Framework defines competence as "a demonstrated ability to apply knowledge, skills and attitudes for achieving observable results".

It defines this further as:

- Knowledge represents the "set of know-how or what" (e.g., programming languages, design principles, etc.) and can be described by operational descriptions.
- Skill is defined as "ability to carry out managerial or engineering tasks". Managerial and technical skills are the components of competences.
- Attitude, in this context, means the "cognitive and relational capacity" (e.g., analysis capacity, synthesis capacity, flexibility, pragmatism...). If skills are the components, attitudes are the glue, which keeps them together.

#### 8.3.2 The competences of a Chartered Engineer

- The five competences of a Chartered Engineer are:
- Use a combination of general and specialist engineering knowledge and understanding to optimise the application of existing and emerging technology.
- 2. Apply appropriate theoretical and practical methods to the analysis and solution of complex engineering problems.
- 3. Provide technical, commercial and managerial leadership.
- 4. Use effective communication and interpersonal skills.
- 5. Make a personal commitment to abide by the

### PREPARING YOUR APPLICATION PHASE 2 – INITIAL PROFESSIONAL DEVELOPMENT

appropriate code of professional conduct, recognising obligations to society, the profession and the environment.

As part of your application you are asked to provide statements of competence demonstrating evidence of your own ability within each of the five competences required of a Chartered Engineer.

- 8.3.3 Guidance to the statements of competence of a Chartered Engineer
  - To assist in the preparation of your statements of competence the attributes normally associated with each of the five competences of a Chartered Engineer are described in this section. In your application you should provide approximately 500 words on how you can demonstrate each of the five competences.

While the guidance provided is to assist you in your application; it is not a checklist.

It is quite likely that you will not be able to demonstrate work experience in every area but you should be able to demonstrate sufficient experience within each of the competences.

- When writing your competence statements you should provide clear examples of how you have developed the competence, using the attributes, questions and guidance to guide your answers. You should include details of projects in which you have played a role, explaining your actual involvement and work, and how these have contributed to your formation as an engineer. Your statements need to be concise, ensuring that your argument is clear and easy to understand. Don't give just an account of what you have done since you graduated; only include solid examples that show you have developed the required competence. Your report should be in English and you should write in the first person, using 'I' instead of 'we' or 'the team' (e.g., I designed it, I was responsible for, etc.).
- The assessment criteria for Chartered Engineers are discussed in Section 10. The assessment criteria ensure that the standard of competence required of a Chartered Engineer is assessed while

taking into consideration the strengths and weaknesses within any professional engineering career.

#### COMPETENCE STATEMENTS: ATTRIBUTES AND GUIDANCE

#### Competence 1: Engineering knowledge

Use a combination of general and specialist engineering knowledge and understanding to optimise the application of existing and emerging technology

C1.1 How have you maintained and extended a sound theoretical approach in enabling the introduction and exploitation of engineering technology and other relevant developments?

#### Guidance:

- Describe how you have used the engineering theory you learned through your qualification and applied it to your practical experience.
- Discuss if you have engaged in formal postgraduate study to broaden your knowledge.
- Provide information on how you have extended your knowledge by applying and exploiting further professional development tools/sources/information in the workplace.
- Indicate how you have systematically deepened your knowledge through research and experimentation.
- Show how you have assessed the impact of emerging technologies and identified how to apply them to new areas.
- C1.2 How have you understood and applied advanced knowledge of the widely applied engineering principles underpinning good practice?

- Show how you have kept aware of and improved your knowledge of technological advances.
- Give examples of how you have conducted a sound

### PREPARING YOUR APPLICATION PHASE 2 – INITIAL PROFESSIONAL DEVELOPMENT

- appraisal of statistical data to improve the effectiveness of your design/product/service.
- Indicate how you have applied and/or understood engineering design principles and their impact on the final outcome of your design/product/service.
- C1.3 How have you applied creative problem solving approaches to your area of engineering expertise?

#### Guidance:

- Give examples of how you used innovation and knowledge gained to approach problem solving.
- Show how you have worked with all stakeholders to define requirements for your services.
- Give examples of how you have used creativity and initiative in investigating/analysing/conceptualising possible solutions, also illustrating how you came to a final recommendation.
- C1.4 How have you promoted innovation and technology transfer?

#### Guidance:

- Describe how you have successfully passed on the knowledge you have gained to improve the advantage to your project and company.
- Show how you have led or managed the promotion or exploitation of opportunities to transfer technology within an area of expertise while demonstrating awareness of legal implications.

### Competence 2: Application of engineering knowledge

Apply appropriate theoretical and practical methods to the analysis and solution of complex engineering problems.

C2.1 How have you identified potential projects and opportunities?

#### Guidance:

■ Give examples of how you applied your engineering knowledge and experience to improve and innovate.

- Show how you have used your knowledge of your employers' expertise to introduce potential new projects/products.
- Describe how you have continually reviewed and taken the initiative for the enhancement of designs, products and processes.
- Give examples of how you have identified the complexity of potential projects and used your original thought to design and deliver satisfactory outcomes to engineering challenges.
- C2.2 How have you conducted appropriate research and undertaken design, evaluation and development of possible solutions?

#### Guidance:

- Describe how you have been involved in market research and tender processes for engineering services/products/processes.
- Give examples of how you have used simulated or computer modelling to compare and contrast impacts and outcomes of potential solutions to deliver a final outcome.
- Show how you have undertaken evaluations of risks, costs and impacts in the design/development of your engineering service/product/process.
- C2.3 How have you planned, implemented, designed, evaluated and modified engineering solutions holistically?

- Give examples of how you have planned, costed, analysed, corrected and/or modified in the delivery of your engineering services.
- Show how you have developed and documented a recommendation/proposal for client/process requirements.
- Show how you have developed concepts into detailed designs/processes.
- Describe how you have tested products/services/designs, negotiated modifications or adaptations if required, and evaluated the final solution against the original brief or specification.
- Describe how you have actively participated in stakeholder consultation.

### PREPARING YOUR APPLICATION PHASE 2 – INITIAL PROFESSIONAL DEVELOPMENT

#### Competence 3: Leadership

Provide technical, commercial and managerial leadership.

C3.1 How have you planned for effective project implementation?

#### Guidance:

- Show how you have prepared and agreed a proposal for the development and delivery of a project.
- Give examples of how you have led or managed project planning activities including resource allocation and identification of key milestones to ensure delivery of the project.
- Demonstrate how you have recognised the competence of others and how you have managed their input to the delivery of the project.
- C3.2 How have you managed (planned, budgeted, organised, directed and controlled) tasks, people and/or resources?

#### Guidance:

- Show how you have set and implemented work objectives, with prioritisation to allow for efficiencies with regard to cost and resource allocation.
- Give examples of where you have provided leadership to other engineers or other personnel.
- Describe how you have monitored and adapted projects to deliver best results within the required standards/regulations.
- Demonstrate how you have led risk assessment with regard to planning activities.
- C3.3 How have you developed the capabilities of staff to meet the demands of changing technical and managerial requirements?

#### Guidance:

- Show how you have developed and improved the capabilities and skills of your project team.
- Give examples of your input to training plans for staff and your involvement in reviews of effectiveness of workplace training programmes.

C3.4 How have you brought about improvement through quality management?

#### Guidance:

- Show how you have applied and improved quality standards and control.
- Demonstrate how you have fostered the acceptance by colleagues/staff of quality management principles.

C3.5 How have you been responsible for making decisions on part or all of complex projects?

#### Guidance:

 Give examples of decisions you have made and their impact on projects.

#### Competence 4: Communications skills

Use effective communication and interpersonal skills.

C4.1 How have you worked and communicated effectively with others at all levels?

#### Guidance:

- Give examples of how you have chaired meetings and documented project progress with input from multidisciplinary teams.
- Show how you have developed, maintained and promoted effective working relationships.
- Describe how you have used empathy and listening skills to respond effectively and efficiently to colleagues/clients.
- C4.2 How do you effectively present and discuss ideas and plans?

- Describe presentations and proposals you have delivered to a range of audiences (e.g., clients/colleagues/non-technical audiences).
- Show how you have prepared for presentations to or discussions with a variety of audiences.

### PREPARING YOUR APPLICATION PHASE 2 - INITIAL PROFESSIONAL DEVELOPMENT

- Describe how you express yourself effectively in written and oral communications.
- C4.3 How have you been responsible for negotiations and building teams?

#### Guidance:

- Show how you resolve conflicts, promote confidence and effectively negotiate with all project participants.
- Demonstrate how you take responsibility within a team capacity and how you identify collective goals.
- Demonstrate how you treat people with respect in a professional capacity.

#### Competence 5: Ethical practice

Make a personal commitment to abide by the appropriate code of professional conduct, recognising obligations to society, the profession and the environment.

C5.1 How have you complied with appropriate Codes and Rules of Conduct?

#### Guidance:

- Give examples of codes and controls that you have applied in your professional practice.
- Give examples of how you balance the responsibility for welfare, health and safety with responsibility to the profession, sectoral interests or to other engineers.
- Clearly show how you understand and comply at all times with the Engineers Ireland Code of Ethics.
- C5.2 How have you managed and applied safe systems of work?

#### Guidance:

- Demonstrate your knowledge of health and safety requirements and your application of these requirements in your work.
- Describe how you keep informed on current health and safety

- legislation and best practice relevant to your area of expertise.
- Give examples of how you have assessed risk and safety requirements and how you have exercised mitigation measures.
- Show how you take precautions when dealing with hazards.
- C5.3 How have you undertaken to ensure that your engineering work is in compliance with the Codes of Practice on Risk and the Environment?

#### Guidance:

- Give examples of how you have operated responsibly in your professional work to balance economic, commercial, social and environmental outcomes simultaneously.
- Show how you have strived to achieve the objectives of your engineering work with due consideration to the environment by adopting sustainable management practices.
- Give examples of how your designs/products/services have taken account of total life cycle implications to the environment.
- C5.4 How have you ensured your continuing professional development to maintain the currency of your professional engineering knowledge and skills?

- Describe how you regularly assess your own development needs and prepare action plans to identify your CPD requirements.
- Show how you evaluate your CPD and learning to identify competence development and assessment.
- Give examples of how mentoring or training others has helped you to develop your competence as a professional.
- Demonstrate how you remain informed on engineering issues and developments both nationally and internationally.

### PREPARING YOUR APPLICATION PHASE 2 – INITIAL PROFESSIONAL DEVELOPMENT

- 8.4 Career summary report
- 8.4.1 The purpose of the career summary report is to give your assessors an overview of your career to date and to enable them to clearly see the progression in the level of your responsibility and experience.
- 8.4.2 Your career summary report should include a career summary table, which is included within the application. The career summary report should expand on the details provided in the table, in particular the time claimed in the responsibilities column. You should provide in 2,000 words a description of your IPD in chronological order from the start of your career to the present day. This report should provide background and context to the evidence you have provided in your competence statements. It must describe the tasks you undertook and your personal responsibility in your professional career to date. It should not be a mere inventory or extended CV but should emphasise your personal contribution and involvement in key decisions on non-routine problems. It should concentrate on where you were responsible for creating and implementing innovative solutions. You should give an indication of the size and financial value of the work undertaken.
- 8.4.3 In your preparation please note:
  - The purpose of the report is to provide a clear, comprehensive account of your IPD to date.
  - Your report should be in English and you should write in the first person, using 'I' instead of 'we' or 'the team' (e.g., I designed it, I was responsible for, etc.).
  - You should pay particular attention to ensuring that you communicate the information in the report in a clear and articulate manner, as would be expected of a Chartered Engineer. You should not use shorthand or abbreviated informal text.
  - Spelling, syntax and grammar are important.

    Applications with errors in this regard will be deemed unsuccessful.
  - The report should be written in chronological order commencing at the date of graduation.

- A glossary of terms must be included in the relevant section of the application. The first use of a term or title in the report, which is subsequently abbreviated, must be given in full with its abbreviation.
- 8.4.4 The assessment will not be based on how your employer or team delivered services but on your own personal involvement. Your career summary report should emphasise:
  - Your personal contribution and responsibilities;
  - The problems *you* faced;
  - The solution(s) *you* found;
  - The engineering judgements you made; and,
  - The impact *your* solutions(s) and judgements generated.
- 8.5 CPD and future development statement
- 8.5.1 CPD general
  - CPD is defined as the planned acquisition of knowledge, experience and skills, and the development of the personal qualities necessary for the execution of professional and technical duties throughout an engineer's professional life. It encompasses both technical and non-technical matters.
  - Your approach to CPD should be systematic where you continuously maintain, improve and broaden your professional skills. Self-evaluation is key to the success of your CPD where you have taken time to consider what you have learned, how you have applied it and how it helps to identify where you have room to develop further.
  - It is expected that as a member of Engineers Ireland and a candidate for the registered professional title of Chartered Engineer, you engage in CPD from the earliest stages of your professional career, in line with the Engineers Ireland Code of Ethics. Your proactive professional development ensures the currency of your skills and knowledge, which in turn is ultimately of benefit to the society you serve as a Chartered Engineer.
  - Engineers Ireland recommends that you should undertake a minimum of five days or 40 hours of

### PREPARING YOUR APPLICATION PHASE 2 - INITIAL PROFESSIONAL DEVELOPMENT

appropriate CPD per annum during your period of IPD and throughout your career. To ensure that you benefit from this development and that you evaluate your CPD to allow you to identify further development, you should maintain a record of your CPD.

- For your application you are required to demonstrate a minimum of five days, or 40 hours, of CPD per annum for the two years prior to application for the title of Chartered Engineer.
- CPD is not just about your completion of educational programmes or external training. It is the range of learning and development that you will complete throughout your career. A full description of what constitutes CPD is included within the document 'Chartered Engineer Guidance Notes'. This should help you to identify what learning and development you have completed during your IPD.
- 8.5.2 Your application CPD and future development statement
  - Your application requires you to complete a CPD statement.
  - Under the headings given you should provide a comprehensive list of your CPD over your IPD period, paying particular attention to your recent development.
  - Please expand on each CPD activity to give information on why it was important and how you applied/incorporated it into your role.
  - Your CPD statement will create a picture for your assessor of your development to date. Your learning and development will not cease after successful achievement of the registered professional title of Chartered Engineer. Instead it should remain an essential part of your professional career. Your future development statement should include, in no more than 200 words per section, an indicative plan for your development over the short, medium and long term. When considering this, discuss the direction you wish your professional engineering career to go, how you intend to get there and what skills you will need to attain or improve to achieve your goals.

#### 8.6 Essays

- 8.6.1 Your application requires you to complete two short essays.
- 8.6.2 The purpose of requiring you to write two essays is to provide you with an opportunity to articulate your professional opinions on important topics relevant to the professional practice of engineering.
- 8.6.3 The essays should be a clear articulation of your opinions, arguments, conclusions and analysis, and not a repetition of quoted text or argument from another source. It is your argument that counts; regardless of whether the assessor agrees or not with your opinion, what is important is that you have presented your opinion and conclusion based on a clear rationale. The essays are a vehicle to demonstrate your communications skills (in line with Competence 4).
- 8.6.4 The essays should each be 500 words long.
- 8.6.5 The first essay may be on an engineering topic of your choice. The second must be from a list of topics that will be presented on the Engineers Ireland website every submission cycle. They will appear in June for the January deadline and in January for the June deadline of each year.

You should choose an appropriate title of your own choice for each of the two essays.

#### 8.7 Your supporters

- 8.7.1 You are required to have your application validated by two supporters who are Chartered Engineers with Engineers Ireland. They should be familiar with all or part of your career as a professional engineer, and your engineering experience and ability.
- 8.7.2 Each Chartered Engineer should be familiar with all or part of your formation as an engineer and may be a supervising academic or engineer within your employment. Both supporters should read your submission prior to confirming support, at least one

### PREPARING YOUR APPLICATION PHASE 2 – INITIAL PROFESSIONAL DEVELOPMENT

month in advance of your submission deadline. This will allow adequate time should your supporter give you feedback on your application.

- 8.7.3 You should note that Engineers Ireland may contact your supporters to discuss any aspect of your application.
- 8.7.4 In exceptional circumstances, Engineers Ireland will consider alternative arrangements, where, because of the nature of your employment, you cannot provide two Chartered Engineers as supporters. If this applies to you, you must contact the membership team to discuss this option at least two months before you submit your application.
- 8.7.5 Family members may not support your application.

### **SECTION NINE**

### PREPARING YOUR APPLICATION PHASE 2 – SUBMITTING YOUR APPLICATION AND ASSESSMENT

#### 9.1 Submission of documentation

- 9.1.1 Engineers Ireland invites submissions of applications for the Chartered Engineer Phase 2 assessment by the last Friday in January or the last Friday in June. Applications through these regulations will be accepted in electronic format through the members area of the Engineers Ireland website.
- 9.1.2 Payment of your assessment fee must be made at the time of submission. Details of fees may be found at www.engineersireland.ie/rates.

#### 9.2 Professional review schedule

9.2.1 The timetable for processing applications received for the registered professional title of Chartered Engineer is detailed below.

#### Timetable for processing applications

Deadline for submission of application	Phase 2 Initial assessment	Professional interviews					
Last Friday in January	February	March to June					
Last Friday in June	July	August to January					

9.2.2 The purpose of the initial assessment is to determine if your application broadly meets the requirements as laid down in the regulations and if, in the opinion of the assessor, you should be allowed to proceed to the professional interview. You should note that progression to your professional interview does not mean that your application is deemed as successful. The outcome of your application will depend on the full assessment of

both your application and the professional interview.

- 9.2.3 Your application will be assessed by Engineers Ireland. If your application is not deemed as satisfactory to progress to interview, you will normally be advised of this within two weeks of the assessment dates. At this time you will be:
- a) asked to modify your application in accordance with specific requirements before re-submission for the next deadline.

OR

b) advised to defer your application for a specified period while you further develop your competences.

OR

 asked to modify your application in accordance with specific requirements before re-submission within the current deadline, in exceptional circumstances.

#### 9.3 Your professional interview

9.3.1 The interview panel

You will be interviewed by panel of a minimum of two members of Engineers Ireland who are Chartered Engineers and who are considered competent by the Board of Examiners (BEX) to make recommendations on the suitability of candidates for the title of Chartered Engineer.

Members of interview panels will be Chartered Engineers whose expertise is relevant to your branch and experience in engineering. It is very important to mark your areas of expertise as accurately as possible in your application as this information will be used as part of the matching process with your interview panel.

9.3.2 The professional interview

The members of the interview panel are required to satisfy themselves that you have reached an acceptable level in the competences. They will be

### **SECTION NINE**

### PREPARING YOUR APPLICATION PHASE 2 – SUBMITTING YOUR APPLICATION AND ASSESSMENT

using the assessment criteria described in Section 10 to determine this. They will exercise flexibility in interpreting the content of your application and careful judgement in reaching a recommendation in respect of your level of competence.

9.3.3 The duration and format of your interview

Professional Interviews are held either at the offices or in regional branches of Engineers Ireland, as appropriate. A video link interview can be organised upon request in exceptional circumstances. You should contact us when submitting your application if you would like to acquire approval to progress with this style of interview. If it is approved by the BEX you should be aware that you are responsible for any additional costs for the interview.

You will be asked to produce photographic identification, such as a passport or driving licence. The interview will last for approximately one hour and you will be given ten minutes at the start of the interview in which to give an uninterrupted verbal presentation and five minutes at the end to summarise or ask questions. You may use your initial ten minutes to highlight significant engineering work you have undertaken; to inform the panel of an additional project(s), which was not included in your report; or to give the panel an update on a project that was incomplete at the time of submitting your report.

You may use visual aids, up to A3 size, as appropriate for use across a table. You may choose to bring a laptop or tablet to present information. However, no presentation equipment will be provided and you will not be permitted entry to the room in advance of the interview. If you choose to use a laptop to present particular information to the panel, you should have it open and ready to present when you meet the panel. The chairperson of your interview panel will be a senior assessor. He/she will introduce the panel to you and invite you to commence your ten minute presentation.

The chairperson is responsible for ensuring that your interview is conducted in line with the regulations. Your

interview panel will question you in relation to the content of your application, focusing on the competences of a Chartered Engineer and the assessment criteria defined in Section 10.

#### 9.4 Quality assurance

The professional review process is subject to a quality assurance procedure designed by Engineers Ireland to assure the continuing high quality and integrity of the procedures.

#### 9.5 Confidentiality

All the assessors and interviewers are bound by the Council of Engineers Ireland and its Code of Ethics to maintain complete confidentiality in relation to all aspects of the review procedure and documentation.

#### 9.6 Notification of your result

- 9.6.1 Your interview panel will take consideration of both your written application and your professional interview to make a final recommendation on your competence level. This recommendation is then considered by either the MQB or the BEX.
- 9.6.2 If your interview panel recommends that you are successfully awarded the registered professional title of Chartered Engineer their recommendation will be considered by the MQB. If successful, you will be notified within two weeks of the MQB meeting. The Board meets monthly with the exception of the month of August.

#### 9.6.3 Unsuccessful candidates

If your application is unsuccessful, the recommendation of your interview panel will be considered by the BEX. You will subsequently be given the reasons for the unsuccessful result and advised as to what you must do to make up any deficit(s), including a recommended time scale, before re-applying for the title.

### **SECTION TEN**

### PREPARING YOUR APPLICATION PHASE 2 – ASSESSMENT CRITERIA

#### 10.1 Introduction

- 10.1.1 Your application documentation and professional interview should provide direct evidence of your competence in line with requirements of a Chartered Engineer. Engineers Ireland has prepared assessment criteria as guidance for both you as a candidate preparing your application and for the assessors of your application. For each competence there are levels of development. This is indicative of the strengths and weaknesses applicants may have within their personal development. It also aims to provide a framework for all professional engineers, before and after they have achieved the registered professional title of Chartered Engineer, to continue their professional development.
- 10.1.2 The levels of development within the assessment criteria are described below. These are the levels your interview panel will use to assess your development within the competences required of a Chartered Engineer.

10.1.3 More detail on the level of development within each particular competence is provided to assist you in the document 'Chartered Engineer Guidance Notes'.

#### 10.2 Standard requirements

- 10.2.1 To successfully achieve the registered professional title of Chartered Engineer:
  - You will be required to achieve a minimum of Level 2 development in all of the five competences;

AND

■ You will be required to achieve a minimum of Level 3 development in three of the five competences, one of which must be competence 1 or 2.

#### **GENERAL ASSESSMENT CRITERIA**

#### Level 3 Level 4 Level 1 Level 2 Candidate: Candidate: Candidate: Candidate: demonstrates through demonstrates through demonstrates through ■ demonstrates through a range of experiences a range of experiences a range of experiences a range of experiences that he/she delivers that he/she delivers that he/she delivers that he/she delivers their role under their role with their role with their role with supervision with low personal responsibility personal responsibility autonomy and is often level of personal in routine situations in non-routine or primarily responsible responsibility. and with supervision in complex situations for significant more complex and/or in responsible engineering work and circumstances. charge of significant for the development of engineering work. others. demonstrates limited ■ demonstrates an demonstrates a good demonstrates an understanding and adequate understanding, excellent knowledge of the understanding, understanding, knowledge and competence required knowledge and knowledge and substantial of a Chartered practice, under responsible practice of exceptional Engineer. supervision, of the the competences responsible practice of competences required required of a the competences of a Chartered Chartered Engineer. required of a Engineer. Chartered Engineer. **NOVICE** >>>

### **APPENDIX ONE**

### PREPARING YOUR APPLICATION GLOSSARY OF TERMS

AEng MIEI	Associate Engineer and Member of Engineers Ireland								
BAI	Baccalaureus in Arte Ingeniaria								
BEng	Bachelor of Engineering								
BEX	Board of Examiners								
BSc	Bachelor of Science								
CEng MIEI	Chartered Engineer and Member of Engineers Ireland								
CPD	Continuing Professional Development								
CPEng	Chartered Professional Engineer								
CV	Curriculum Vitae								
DS	Diploma Supplement								
ECTS	European Credit Transfer System								
EU	European Union								
EUR ING	European Engineer								
FEANI	European Federation of Engineering Professional Bodies								
HR	Human Resources								
IPD	Initial Professional Development								
MBA	Master of Business Administration								
MEng	Master of Engineering								
MIEI	Member of Engineers Ireland								
MQB	Membership and Qualifications Board								
NQF	National Framework of Qualifications								
PE	Professional Engineer								
QQI	Quality Qualifications Ireland								
RE	Resident Engineer								

### **APPENDIX TWO**

#### **VERIFICATION OF QUALIFICATIONS**

Verification is acceptable through any of the following means:

- submit the original documents/parchment/transcripts/letters verifying your qualification by post to Engineers Ireland. We will copy them and return them to you; or
- submit a copy of your documents/parchment/transcripts/letters signed by an Engineers Ireland employee/a member of An Garda Síochána/a public notary/a Chartered Engineer certifying that they have viewed the original.
- complete the qualification verification form below and return it to Engineers Ireland and we will receive confirmation from your college;
- complete the qualification verification form below and send it to your college for them to stamp and fax/post back to Engineers Ireland.

#### SIGNED RELEASE OF INFORMATION OF QUALIFICATIONS

- The onus is on the applicant to provide Engineers Ireland with verification of his/her qualifications.
- 1) This section should be fully completed by candidate and forwarded to College/University.

BLUCK CAPITALS	5 PLEASE														
Candidate's Nam	ne:							Date	of Birth:						
Candidate's Addr	ess:														
Candidates Emai	l:								Phone:						
University/Colleg	je:														
Student Number	:														
Address of Unive	rsity:														
Full Title of Quali	fication:														
Exemptions & Re	eason														
Year of Entry:															
Duration of Study	<b>/</b> :														
I hereby authorise body for the eng					ase the inf	ormat	ion on this	form to	Engineer	s Irela	and, wh	ich is t	he repr	esenta	ative
Signed:									Date:						
2) This section s Department or		-		_				Engine	ering						
The above ment It would be appr and returning the (address overlead	reciated if ynis form di	you would rectly to E	l verify the ingineers I	qualifica Ireland or	tions clain by fax 01	ned by 668 55	completing 08 or post	g							
I certify that the	above info	ormation i	s correct												
Name & Title															
Signature:									Date:						
Tel:						Fax:									

Please return this form to: Membership Team, Engineers Ireland, 22 Clyde Road, Ballsbridge, Dublin 4

E-mail:

# REGULATIONS FOR REGISTERED PROFESSIONAL ECHARTERED ENGINEER



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