



Application by

THE IRISH ACADEMY OF ENGINEERING

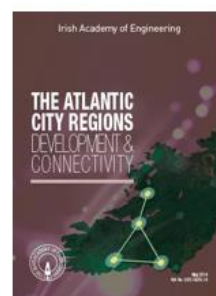
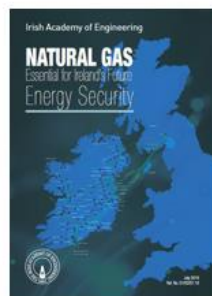
for

Membership

of

**The International Council of Academies of
Engineering and Technological Sciences
(CAETS)**

MARCH 2020





22 Clyde Road, Ballsbridge, Dublin D04 R3N2, Ireland
Tel: +353 1 665 1337
email: academy@iae.ie
website: www.iae.ie

CAETS
International Council of Academies of Engineering and Technological Sciences
Washington DC
USA

4th March 2020

To Whom It May Concern:

Application of Irish Academy of Engineering to join CAETS

The Irish Academy of Engineering wishes to make formal application for membership of CAETS. Our detailed application is attached.

By way of background, the Irish Academy of Engineering was founded in May 1997 by the Institution of Engineers of Ireland, now operating as "*Engineers Ireland*".

The history of the Institution itself can be traced back to 6 August 1835 when a group of civil engineers met in Dublin and agreed to form the Civil Engineers Society of Ireland.

In the late 1990s the Institution saw the need to afford engineering an additional and enhanced profile in national and international affairs.

The Irish Academy of Engineering is an independent body corporate, recognised under Irish law. It retains a close relationship with the Engineers Ireland, shares many members and continues to enjoy its support.

The Academy focusses on medium to long term societal challenges. In particular, our focus is on socio-technical and socio-economic issues which require technological and engineering solutions, or those that from technological and engineering solutions already in train.

The Academy also provides platforms for informed debate and discussion with subsequent input into public discourse and the formation of public policy.

Given the nature of many of today's engineering challenges, the Academy recognises the importance of transnational co-operation and is a full and active member of the European Council of Applied Sciences Technologies and Engineering (Euro-CASE), the organisation representing European academies of engineering.

In making this application to CAETS we are acutely aware of the need to address many challenges at a global level; and the fact that engineering and science has a pivotal role to play in addressing these challenges. Engineering is the 'magic' factor which makes our modern world possible and shapes our lives; it '*transforms science fiction into engineering fact*'.

We currently have strong and developing associations with several European academies, including the UK and Germany. I recently held very productive meetings with *acatech* in Berlin and we are currently planning a joint series of seminars with our colleagues in the Royal Academy of Engineering (RAEng) to celebrate and coincide with the forthcoming visit by the President of RAEng, Sir Jim McDonald, to Ireland in the Fall of this year. At the invitation of the RAEng, I recently participated in the very successful '*Global Grand Challenges Summit 2019: Engineering in an unpredictable world*', organised in cooperation with the Chinese and American academies, and held in London in September 2019.

Our Academy has ambitious plans to grow our reach and I believe we have the ability and appetite to be an active contributor to the work of CAETS and add value to its activities.

Our membership includes Fellows, who have made significant contributions in areas as diverse as:

- **Academia** - University Presidents, Provosts, Vice Presidents, leaders of Research Institutes, Senior Professors of Engineering;
- **Public Sector** – Directors, Senior Management, experts from Government Departments and Agencies, Utilities, Local Government;
- **Industry** – CEOs, Presidents, Managing Directors, Directors, Vice Presidents;
- **Engineering Consultancy** - Founders, Managing Directors, Directors.

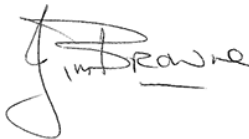
Our membership includes experts in many areas including high-tech, manufacturing, ICT, bio-pharma, medical devices, as well as established industries such as Construction, Materials, General Engineering and Primary Energy.

As an 'all island body' the Academy performs a valuable and practical role in linking the profession in both jurisdictions on the island of Ireland in matters of common interest and concern.

I welcome this opportunity to seek membership of CAETS and I commend our application attached herewith to you.

Should you require any further or additional information we shall be pleased to provide it.

Yours faithfully,

A handwritten signature in black ink, appearing to read "Jim Browne". The signature is stylized with a large initial "J" and "B".

Dr. Jim Browne
President

IAE CAETS Application 2020

Introduction to the Irish Academy of Engineering (www.iae.ie)

About the Academy

The Academy is a registered charity that is governed by a member-elected Council and Standing Committees. Day-to-day activities of the Academy are managed by the Chief Executive and the Officer Board.

The Irish Academy of Engineering is an all-island body; it operates in, and draws its membership from, both the Republic of Ireland and Northern Ireland. The Academy has a close working relationship with the UK's Royal Academy of Engineering and has many shared members in Northern Ireland.

The **vision** of the Academy is to contribute to the social, economic and technological development of Ireland, using the unique collective experience and knowledge of its members.

Our **mission** is to provide an expert and independent resource to key decision-makers and the public on important issues requiring technological-economic solutions and a platform for informed debate and discussion.

How We Work Today

Analyse

The Academy operates through four Standing Committees each of which addresses key topic areas in engineering.

The standing committees are: (i) Energy and Climate Action; (ii) Infrastructure; (iii) Enterprise, Innovation and Education, and (iv) Heritage. Each works to produce informed and professional reports, assessments and critiques of public policy options.

Once complete, each report undergoes rigorous peer review and approval by Council before being released for publication.

Communicate

We host forums and conferences as opportunities for members to engage in dialogue and discussion.

We promote the heritage of engineering in Ireland as a source of pride and learning.

We maintain international links with 35+ national Academies, in the process promoting the modern image of Ireland and keeping abreast of new developments.

The Academy works to foster practical North-South co-operation in Ireland.

Influence

Following research and peer review, the Academy hosts launch events for the publication of reports to promote learning and debate.

We seek to disseminate relevant information and our own expertise in order to assist policy makers in making evidence-informed decisions.

Recognise

The Academy is dedicated to honouring and encouraging achievements in engineering.

We work to promote engineering to young people, encouraging younger generations to pursue career pathways in the field by supporting Engineering Ireland.

We host award ceremonies, lectures and other events in the name of promoting engineering in Ireland.

Academy Activities

The Academy maintains links with international academies and engineering institutions worldwide.

The Academy recognises and celebrates engineering achievement by awarding one recipient the Parsons Medal each year. The medal is named in honour of Sir Charles Parsons, the 19th century Irish inventor of the steam turbine.

We host events and lectures from guest speakers, such as government ministers, respected academics and distinguished CEOs.

Our reports, assembled by those with expertise in their fields, explore engineering issues of broad social and economic relevance.

IAE Application form – March 2020

This application form follows the guidance provided on the CAETS website.

Applications must demonstrate that the academy meets the Criteria for Membership defined in ARTICLE 2, Section 3 of the CAETS Bylaws, and should be structured as outlined below.

I. Background

i. Name of Academy

Irish Academy of Engineering(IAE)

Point of contact for questions regarding application

Dr. Gabriel Dennison Chief Executive.

Email chiefexecutive@iae.ie

Phone (office) + 353 1 6651338

ii. Date of establishment of the academy

May 1997.

iii. Brief description of motivation for establishment of academy and other relevant background information

The Irish Academy of Engineering was founded in May 1997 by the Institution of Engineers of Ireland, now operating as “Engineers Ireland”.

The Fundamental Principles governing the Academy were approved by the Council of the Institution on 30 November 1996. At that time the Institution saw the need to afford engineering an additional and enhanced profile in national and international affairs. The Academy is an independent body though it still retains a close affiliation with the Institution and enjoys its support.

During its formative years the Academy operated as an unincorporated association of its members. At a Special General Meeting of the members on 11th January 2007, it was unanimously agreed to seek to change the status of the Academy to that of an incorporated company limited by guarantee and without share capital.

It was agreed that, once registered, the company should seek to be a Registered Charity.

The Special General Meeting in January 2007 passed a motion to adopt the new Memorandum and Articles of Association of the Irish Academy of Engineering (Limited) in place of the original Fundamental Principles and By-Laws. At the request of the Irish Revenue Commissioners minor modifications were made to clauses 3 and 4 of the Memorandum of Association. These changes were approved by the Council and by the members at an Special General Meeting held on 2nd September 2008.

The applications for incorporation and charitable status were lodged in February 2007 and the Academy was registered as an incorporated company on 4 May 2007 (Registration No 439234). In view of the likely granting of charitable status the Registrar of Companies registered the company as “The Irish Academy of Engineering” as companies holding charitable status can claim exemption from having to include “Limited” in their name.

The Irish Revenue Commissioners granted charitable status to the Academy in October 2008 under registration CHY 18046.

Membership of the Academy was limited to one hundred and fifty chartered (professional) engineers (increased to 200 by AGM motion in 2019) and members of related disciplines who have been recognised for the achievement and eminence of their professional careers.

As an all Ireland body the Academy performs a valuable role in linking the profession in both jurisdictions on the island in matters of common interest and concern.

The core of the Academy’s work is the preparation of independent, evidence-based assessments of engineering and technology-related issues of particular social and economic import. Our perspective is medium to longer term.

Examples of such publications include “Towards a Population of 6 Million – Implications for Spatial Strategy”, “Future Engineering Education”, “Ireland’s Environment”, “Transport in Ireland to 2050” and a review of future workforce requirements in “Engineering a Knowledge Island 2020”. Other recent reports include “Future Energy Policy in Ireland”, “Ireland at Risk – Adaptation for Climate Change” and “Infrastructure for an Island Population of 8 Million” and “innovation”.

The contribution of these reports to future policy and economic development has been greatly valued by the two administrations on the island. This work is largely undertaken by the Members, who provide their service and expertise in a voluntary capacity.

iv. Current leadership team (names, brief paragraph biographies)

Council 2020:

- **President** - Jim Browne
- **Immediate Past President** – Tony Smyth
- **Hon Secretary** - William Grimson
- **Hon Treasurer** - Patrick Lynch
- Norman Apsley
- Tom Leahy

- Seamus McKeague
- Mary Moloney
- Don Moore
- Terry Nolan
- Neil O'Carroll.

See **Appendix A** for a brief paragraph biography of Council members and the Chief Executive - Dr. Gabriel Dennison.

v. Describe your interest in joining CAETS

Please also refer **to the letter from the President**, Dr. Jim Browne, which is included in the introduction to this application.

When the Academy was created the Institution of Engineers of Ireland saw the need to afford engineering an additional and enhanced profile in national and international affairs.

The Academy is an independent body though it still retains a close affiliation with the Institution and enjoys its support.

The Academy focuses on the medium to long term important issues requiring technological-economic solutions and providing a platform for informed debate and discussion.

The Academy is a member of the European Council of Applied Sciences Technologies and Engineering (Euro-CASE) the body representing European academies.

In making our application to CAETS we are acutely aware of the need to address many challenges at a global level and engineering and science has a pivotal role in addressing these challenges.

II. Membership Criterion

Membership Criterion a) Representative of the engineering and technological community of that country

i. Describe the role of the academy with respect to the broader communities and other professional bodies in your country

The Irish Academy of Engineering was founded in May 1997 by The Institution of Engineers of Ireland, now operating as "Engineers Ireland".

The history of the institution can be traced to 6 August 1835 when a group of civil engineers met in Dublin and formed the Civil Engineers Society of Ireland,

In 1997 the Institution saw the need to afford engineering an additional and enhanced profile in national and international affairs by creating a separate Academy.

The Academy is an independent body though it still retains a close affiliation with the Institution, enjoys its support and has many common members.

Membership Criterion b) Subscribe to the non-political, non-governmental international character of the Council

i. Provide founding documents (e.g. Articles of Incorporation) that demonstrate independence from governmental influence

- a. Please refer to **IAE Memorandum Articles of Association – Latest Document 03/05/2012**. This is included in **Appendix B** of this application form.
- b. Please refer to **IAE Rules & Procedures – Latest document version is dated July 2016**. This is included in **Appendix C** of this application form.

ii. Describe role of academy with regard to the government

Academies are an expert resource available to Governments for information and practical advice on the development and implementation of policies and programmes that underpin socio-economic development.

The IAE is an all-island body concerned with issues where the members, based on their wide and diverse experience, can make a unique contribution to economic, social and technological development.

The Academy, through its published work, provides evidence based assessments of relevant public policies that shape government decision-making in areas of key economic and social importance. We can point to recent publications on spatial planning, energy, Brexit and climate change which were instrumental informing and shaping Government policies. At all times the Academy maintains its independence.

IV. Membership Criterion c) Peer elected membership with criteria for election based on significant personal contributions to engineering, technological sciences, or related activities

i. Describe membership election criteria (i.e. required qualifications)

Please refer to **IAE Memorandum Articles of Association – Latest Document 03/05/2012**.

ii. Describe election process (nomination through election)

Please refer to **IAE Memorandum Articles of Association – Latest Document 03/05/2012** Provide relevant Bylaws or Policies

- Please refer to Please refer to **IAE Memorandum Articles of Association – Latest Document 03/05/2012**. This is included in **Appendix B** of this application form.
- Please refer to **IAE Rules & Procedures – Latest document version is dated July 2016**. This is included in **Appendix C** of this application form.

V. Membership Criterion d) Governed by its elected membership

i. Describe leadership election process (including terms of service)

- Leadership Election process for President is outlined in Detail in **Appendix D**
- Criteria for election of new Fellows is outlined in detail in **Appendix E**

ii. Describe governance responsibilities of elected leadership (both individuals and relevant Councils/Committees)

- These are set out in detail in the **IAE Memorandum Articles of Association – Latest Document 03/05/2012** attached to this application in **Appendix B**

iii. Provide relevant Bylaws or Policies

- These are set out in detail in the **IAE Rules & Procedures – Latest document version is dated July 2016**. attached to this application in **Appendix C**

VI. Membership Criterion e) Engaged in significant activities demonstrating that its objectives are compatible with the objectives of CAETS (Bylaws Article 1): • *Provide an independent non-political and non-governmental international organization of engineering and technological sciences academies, prepared to advise governments and international organizations on technical and policy issues related to its areas of expertise;*

The Academy is independent, non-political and non-governmental and has demonstrated that it advises government and international organisations on technical and policy issues related to its areas of expertise.

- *Contribute to the strengthening of engineering and technological activities in order to promote sustainable economic growth and social welfare throughout the world;*

The Academy promote sustainable economic growth and social welfare through it's activities as set out in this application.

- *Foster a balanced understanding of the applications of engineering and technology by the public;*

The Academy fosters a balanced understanding of the applications of engineering and technology by the public;

- *Provide an international forum for discussion and communication of engineering and technological issues of common concern;*

The Academy is a member of Euro-CASE and as set out in our President's introductory letter it provides an international forum for discussion and communication of engineering and technological issues of common concern

- *Foster cooperative international engineering and technological efforts through meaningful contacts for development of programs of bilateral and multilateral interest;*

The Academy is a member of Euro-CASE and as set out in our President's introductory letter it provides an international forum to foster contacts with sister Academies.

- *Encourage improvement of engineering education and practice internationally;*

The Academy works closely with Engineers Ireland which actively supports engineering education initiatives.

- *Foster establishment of additional engineering academies in countries where none exist; and*
- *Undertake other projects, programs, and activities not inconsistent with section 501 (c)(3) of the Internal Revenue Code and any applicable law of the District of Columbia.*

The Academy is a member of Euro-CASE and as set out in the President's introductory letter it provides an international forum to foster contacts with sister Academies and fully complies with this requirement.

Summarize (brief paragraphs) major activities of the academy over the past 3 years that are related to CAETS Objectives

How We Work Today

Analyse

The Academy operates through four Standing Committees each of which addresses key topic areas in engineering.

The standing committees are: (i) Energy and Climate Action; (ii) Infrastructure; (iii) Enterprise, Innovation and Education, and (iv) Heritage. Each works to produce informed and professional reports, assessments and critiques of public policy options.

Once complete, each report undergoes rigorous peer review and approval by Council before being released for publication.

Communicate

We host forums and conferences as opportunities for members to engage in dialogue and discussion.

We promote the heritage of engineering in Ireland as a source of pride and learning.

We maintain international links with 35+ national Academies, in the process promoting the modern image of Ireland and keeping abreast of new developments.

The Academy works to foster practical North-South co-operation in Ireland.

Influence

Following research and peer review, the Academy hosts launch events for the publication of reports to promote learning and debate.

We seek to disseminate relevant information and our own expertise in order to assist policy makers in making evidence-informed decisions.

Recognise

The Academy is dedicated to honouring and encouraging achievements in engineering.

We work to promote engineering to young people, encouraging younger generations to pursue career pathways in the field by supporting Engineering Ireland..

We host award ceremonies, lectures and other events in the name of promoting engineering in Ireland.

Academy Activities

The Academy maintains links with international academies and engineering institutions worldwide.

The Academy recognises and celebrates engineering achievement by awarding one recipient the Parsons Medal each year. The medal is named in honour of Sir Charles Parsons, the 19th century Irish inventor of the steam turbine.

We host events and lectures from guest speakers, such as government ministers, respected academics and distinguished CEOs.

Our reports, assembled by those with expertise in their fields, explore engineering issues of broad social and economic relevance.

In undertaking these activities we:

- Seek to advise government and relevant international organisations on technical and policy issues related to the Academy's areas of expertise;
- Contribute to the strengthening of engineering and technological activities in order to promote sustainable economic growth and social development;
- Foster a balanced understanding by the public of the applications of engineering and technology;
- Provide a forum for discussion and communication of engineering and technological issues of broad relevant and concern.

Our website, www.iae.ie, lists all Academy publications

IRISH ACADEMY OF ENGINEERING – PUBLICATIONS

2019

- Innovating for Growth – Improving Ireland's Innovation Ecosystem
- Electricity Sector Investment for Data Centres in Ireland
- Called to Serve Two (EI publication)
- Submission on draft Regional Spatial and Economic Strategy for Southern Region (IAE Southern Branch)
- Submission on draft Cork Metropolitan Area Transport Strategy (IAE Southern Branch).

2018

- Response to METROLINK Consultation Process
- Brexit – Implications for Transport Infrastructure Investment

2017

- Ireland 2040 Our Plan – Issues and Choices
- IAE Response to the National Planning Framework Consultation Paper
- Spatial Planning and Infrastructure in Ireland: Summary Report
- Submission to the Department of Housing, Planning, Community and Local Government in relation to the National Planning Framework
- Transport 2030 – Emissions Projections
- Electricity Generation 2030 – Emissions Reductions Options

2016

- The Atlantic City Regions - Development & Connectivity
- Policy Advisory: National Broadband Plan Ireland

- Critical Infrastructure, Adaptation for Climate Change, Progress Report Q1 2016
- Sustainable Transport Infrastructure 2035
- Spatial Planning on the Island of Ireland – Context and Challenges
- Dublin – Belfast Economic Corridor – A European Growth Hub on the Island
- Ireland’s 2030 Greenhouse Gas Emissions Target – An Assessment of Feasibility and Costs

2015

- Renewable Heat Incentives – Consultation Response
- National Broadband Plan Intervention Strategy, IAE Response
- Renewable Electricity Support Scheme, Consultation Response
- Consultation Paper for Successor to Strategy for SSTI, IAE Response
- Dublin Transport Policy IAE Submission

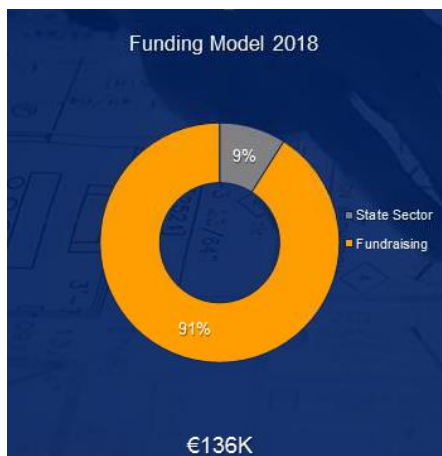
ii. Provide most recent Annual Report if available (link to electronic copy is acceptable)

- **Annual report 2018-2019**, delivered by our President at the Annual General Meeting (AGM) May 2019, is attached to this application as **Appendix F**.

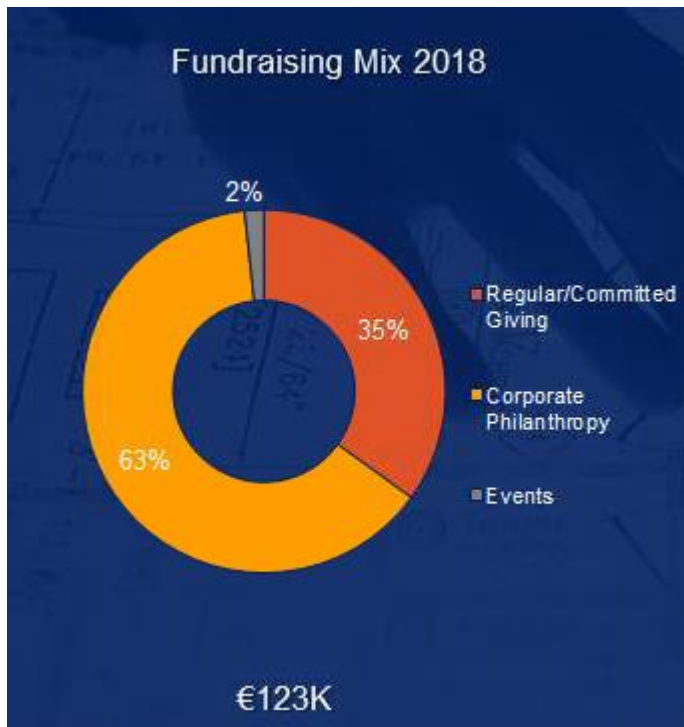
i. Provide copy of most recent audited financials (or equivalent)

- **The Directors report and Annual Financial statement 2018** is attached to this application as **Appendix G**

ii. Summarize major sources of income



Note: State Sector refers to taxation rebate arising from Registered Charity Status.



Note: Corporate philanthropy refers to support from Corporate Patrons

The Academy has ambitious plans to increase funding in 2020-2023 as part of its development activities.

- Applicant's discretion – **additional summary comments that could be helpful in evaluation of application**

About the Academy

The **vision** of the Academy is to contribute to the social, economic and technological development of Ireland, using the unique collective experience and knowledge of its members.

Our **mission** is to provide an expert and independent resource to key decision-makers and the public on important issues requiring technological-economic solutions and a platform for informed debate and discussion.

The Academy is a registered charity that is governed by a member-elected Council and Standing Committees. Day-to-day activities of the Academy are managed by the Chief Executive and the Officer Board.

How We Work Today



Academy Activities

acatech
DEUTSCHE AKADEMIE DER
TECHNIKWISSENSCHAFTEN

Euro-CASE

IVA

Irish Academy of Engineering
NATURAL GAS
Essential for Ireland's Future
Energy Security

Irish Academy of Engineering
BREXIT
Implications for
Transport Infrastructure
Investment

THE IRISH ACADEMY OF
ENGINEERING
Engineering & Technology

The Academy and Ireland

Independent, multidisciplinary **expertise, leadership and experience** of members

Diverse backgrounds and knowledge as a substantial resource to be harnessed in supporting and informing evidence-based decision-making

Linked with academies around the world, including in Germany, Sweden, New Zealand and the UK, with potential to play a greater role both in Ireland and abroad.

What We Plan to Do

Output is largely voluntary to date and investment low, whereas other countries invest heavily in engineering academies.

Now seeking to increase significantly scope of activity to meet a growing need for dialogue and guidance on engineering solutions in today's world.

Plan to increase impact across the board by augmenting our research and hosting quality events that inform, encourage debate and honour engineering achievement.



VII. Membership Criterion f) Financial support to pay the costs of CAETS membership and the costs of participation in CAETS activities

The Academy has provided in it's budget for the cost of EURO – CASE membership and has provided, as part of it's growth & Development plan 2020-2023 for CAETS membership and the costs of participation in CAETS activities.

VIII. Conclusion

Final words from our IAE President

Our Academy has ambitious plans to grow our reach; and I believe we can be an active contributor to the work of CAETS, and indeed add value to it.

Our membership includes fellows, who have made significant contributions in areas as diverse as:

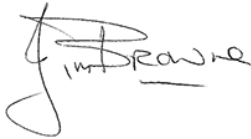
- **Academia** - University Presidents, Provosts, Vice Presidents, leaders of Research Institutes, Senior Professors of Engineering;
- **Public Sector** – Directors, Senior Management, Experts from Government Departments and Agencies, Utilities, Local Government.
- **Industry** – CEOs, Presidents, Managing Directors, Directors, Vice Presidents.
- **Engineering Consultancy** - Founders, Managing Directors, Directors.

Our membership includes experts in many areas including high-tech, manufacturing, ICT, bio-pharma, medical devices, as well as established industries such as Construction, Materials, General Engineering and Primary Energy.

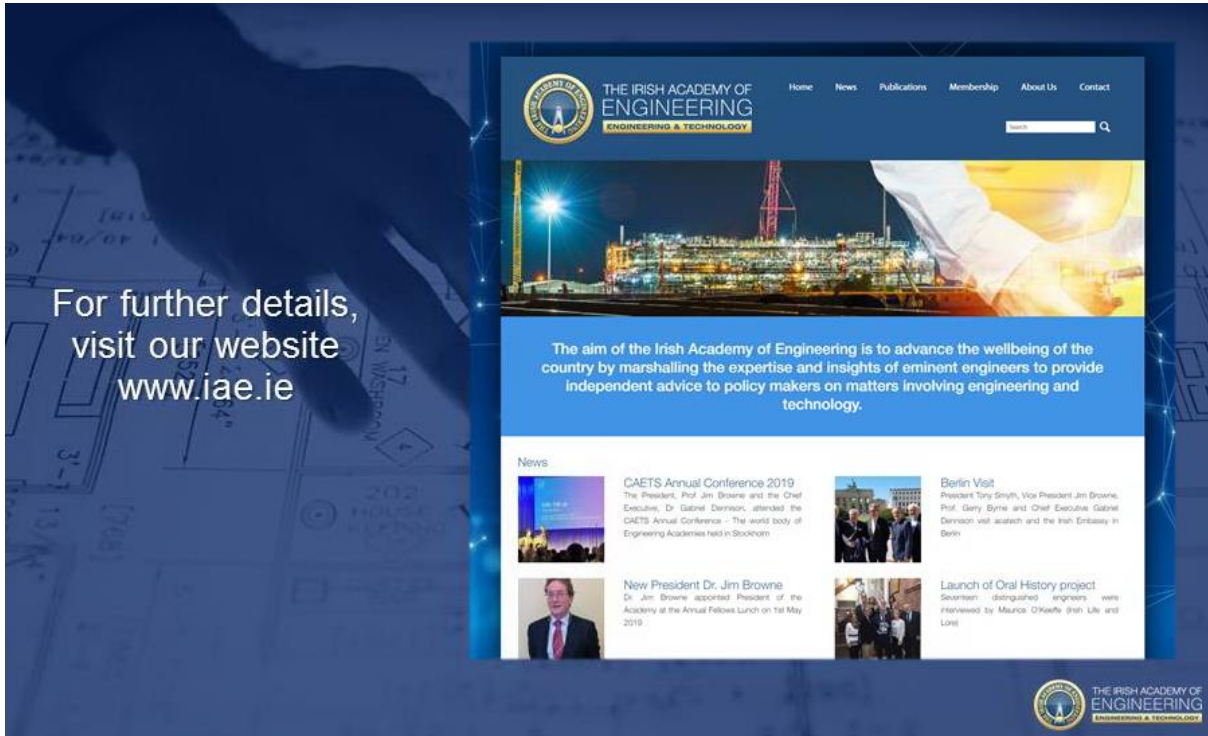
As an 'all island body' the Academy performs a valuable and practical role in linking the profession in both jurisdictions on the island of Ireland in matters of common interest and concern.

I look forward to the opportunity to progress our application and I commend it to you.

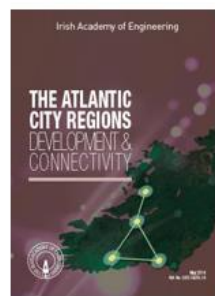
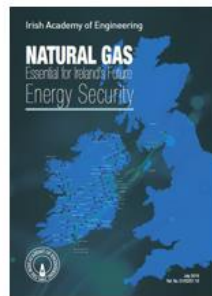
Yours faithfully,

A handwritten signature in black ink, appearing to read 'Jim Browne', with a stylized flourish above the name.

Dr. Jim Browne
IAE President



For further details,
visit our website
www.iae.ie



Appendix A

Irish Academy of Engineering (IAE) leadership team:

- **List of members**
- **Brief paragraph biography**

Current leadership team - names

Council 2020–

- **President - Jim Browne**
- **Past President – Tony Smyth**
- **Hon Secretary: William Grimson**
- **Hon Treasurer: Patrick Lynch**
- **Norman Apsley**
- **Tom Leahy**
- **Seamus McKeague**
- **Mary Moloney**
- **Don Moore**
- **Terry Nolan**
- **Neil O'Carroll**

Chief Executive

- **Gabriel Dennison**

Current leadership team -Names, brief paragraph biographies.

Council 2020

President: Jim Browne

2019/2020 President of the Academy Dr. Jim Browne, B.E., M.Eng.Sc., Ph.D., D.Sc., MRIA, C.Eng. Dr. Browne is an experienced academic with over 30 years of academic leadership and service in the University of Manchester and the National University of Ireland Galway, where he served as President, Registrar, Dean of Engineering and a research leader. He has served on and led numerous Boards focusing on strategic direction, excellence in governance and the management of risk. He is currently Chairman of the Board of Children's Health Ireland, and serves as an advisor on the NMBP programme within the EU H2020 programme. He has published eleven books, one of which was translated into Chinese and another into French, over 250 academic papers in international journals, and supervised over 40 PhD students. He has particular experience in working in the hi-tech sector, including the technology and med tech sectors and extensive experience in setting up and working with multi partner industry – university research and development projects, in Europe, the United States and China.

Past President: Tony Smyth

2018/2019 President of the Academy. B.Eng., M.Eng.Sc., M.Sc.; C.Eng. FIEI; FIAE. Tony Smyth qualified with a BEng in 1975 from NUI, Galway (formerly UCG) and holds an M. Eng. Sc. in Engineering Hydrology also from NUI, Galway, and a M.Sc. in Strategic Management from University of Dublin, Trinity College (TCD). He is former Director of Engineering Services (Asst. Sec. General) and Chief Engineer, Office of Public Works (OPW), an executive office within the Dept. of Public Expenditure and Reform/Finance, where he was responsible for Flood Risk Management and for the Mechanical & Electrical service and for the Civil & Structural engineering services in OPW. He is currently Chair of the Infrastructure Committee Academy.

Hon Secretary: William Grimson

A native of Dublin, he received his secondary education at The King's Hospital School and subsequently graduated with an honours degree in Electronic Engineering from Trinity College Dublin in 1970. After graduating Bill gained admission to the Department of Electrical & Computer Engineering at the University of Toronto where he obtained a masters degree. Bill worked for three years as a research and development engineer in Ferranti Ltd., Edinburgh, in their Laser Systems Group.

He then returned to Ireland to take up a position as a lecturer in what was to become DIT, Kevin Street, where in time he became Head of the Department of Control Systems Engineering. He participated in a number of major European projects.

Towards the end of his career in DIT he was attached to the Directorate of Academic Affairs changing the academic programme delivery model.

Bill is a past Chair of the Membership and Qualification Board of Engineers Ireland and was also a member of the Board of Examiners. He currently chairs the CPD committee, is a member of Council and the Executive of Engineers Ireland. He served two terms as the Irish representative on the European Membership Monitoring Committee of FEANI.

A prolific author Bill has published over 80 journal papers, reports and book chapters in the area of Health Informatics and Engineering Education and contributed to a book, 'Understanding the Global Energy Crisis', edited and written by colleagues in DIT and Purdue University.

He is Chair of the Health Informatics Standards Consultative Committee of the National Standards Authority of Ireland (NSAI).

A Chartered Engineer and Fellow of Engineers Ireland and past President of Engineers Ireland.

Hon Treasurer: Patrick Lynch

BE CEng FIEI MS MIE A former President of the Institution of Engineers of Ireland - was MD of Irish Shell from 1990-1996, having previously served in various company positions in Ireland and the UK since 1982.

Prior to joining Shell, he served as Programme Director with the National Board for Science and Technology, as well as County. Engineer in Counties Limerick and Galway.

He has several non-executive Directorships including CIE, FAS (Chairman), Aughinish Alumina, and was the Chairman of the IBEC Transport Council for a number of years.

He is currently chairman of the Linkage Programme of Business in the Community (Ireland), and Chairman of Dublin City Enterprise Board.

Council Members:

Norman Apsley

Norman Apsley OBE FREng is the former Chief Executive Officer of Catalyst Inc in Belfast, formerly known as the Northern Ireland Science Park.

Apsley is a board member of Matrix, the Northern Ireland Science Industry Panel. He is also a member of the Advisory Board of the Institute of Electronics, Communications and Information Technology (ECIT) at The Queen's University of Belfast. He was appointed an Fellow of the Royal Society for the encouragement of Arts, Manufactures and Commerce and is a Chartered Physicist

Honorary Professor at the University of Essex in 1989, and is also a visiting Professor for the University of Ulster.

In 2011, he was elected as a Fellow of the Royal Academy of Engineering.[4] In 2019, he was awarded an Honorary degree from Queen's University Belfast for services to business and commerce.

He was educated at Larne Grammar School, and then at the University of Ulster where he achieved a First Class Honours Degree in Physics. He went on to study for a PhD in amorphous semiconductors at University of Cambridge's Cavendish Laboratory. Dr Apsley became a Fellow of Jesus College.

He has published 75 Articles in Learned Journals and Specialised Books

Norman is a Fellow of the Irish Academy of Engineering (IAE) where he is currently a Director. He Has served on numerous committees and is the recipient of numerous awards including:

- Honorary Professor, University of Essex
- Queen's Award for Technological Achievement (Divisional Award, IS6)
- Visiting Professor, University of Ulster
- All Ireland Property Award for the most innovative property in N Ireland
- RSUA Design Award

Tom Leahy

Tom Leahy is a Chartered Engineer, Fellow of Engineers Ireland, Fellow of the Irish Academy of Engineering where he is a Director and Alumnus of the Kennedy School of Government at Harvard.

He was also awarded one of the first Taoiseach (Irish Prime Minister) awards for Excellence in Local Government. He has had a distinguished career in Local Government in Ireland serving as Executive Manager with Dublin City Council.

Formerly responsible for traffic management in Dublin City where he introduced major improvements in policy, new infrastructure including world leading adaptive traffic control systems he worked as EU National Representative on the Dedicated Road Infrastructure for vehicle safety in Europe (DRIVE) project, which paved the way for introduction of autonomous drive vehicles now appearing on our streets.

In recent decades, he had responsibility for managing a €600 m. Capital Investment Programme for Water Services and Flood Risk investment. He was also responsible for managing daily water services to the City and Region, co-ordinator of non- fire Emergency Management for the City, CPD Director for Engineering Services and responsible for Strategic Planning of Water, Wastewater and flood risk Management.

In addition he was Director responsible for managing the EU Water Framework Directive planning and implementation for the East Region covering Dublin and 8 other Local Authorities and secured an EU Innovation award for his river basin management system.

He also lead the water theme on the "SMART Dublin Initiative" developing Dublin as a global hub for SMART technology.

He is Irish National representative on EUREAU commission 1 – Drinking Water and he chairs (2019-2021) this International Water committee with member associations providing drinking water to 500 million people in the EU.

He worked closely with EU partners in developing a unique approach to flood management through the INTERREG Flood Resilient City (FRC) project. As Director he was responsible for the delivery of the Greater Dublin Strategic Drainage Study and Strategy (GDSDS) and he pioneered the use of Sustainable Urban Drainage Systems (SuDs).

In 2013 he joined the new National Water utility Irish Water set up to reform water services, which took over responsibility for all water services, infrastructure and investment from 31 Local Authorities. As the Irish Water Regional Operations Manager for the East Region (one of 3 regions in Ireland) he manages a budget of €220 m. and manages daily water service delivery to 50% of the National population and is in charge of National Special Projects.

Seamus McKeague

Seamus graduated with a BSc degree in Civil Engineering from Queen's University Belfast in 1979 and worked for the Department of the Environment in Northern Ireland for four years before becoming part owner of the family business in 1983 and its Managing Director in 1986. He has seen the business expand from employing 14 people and a turnover of £0.5m in 1983 to one employing 530 people and a turnover of £58m in 2007.

The company is a major supplier of concrete blocks, premix concrete and precast products to markets across Ireland and the U.K. Seamus has been personally responsible for leading a company which manufactures environmentally friendly and sustainable concrete products which reduce carbon footprint including the SpanTherm structural flooring system for improved thermal efficiency of buildings.

Seamus is chairman of IPHA, the International Prestressed Hollowcore Association (the international organisation for prestressed flooring manufacturing companies). He is also a member of the Board of the British Precast Association, a founding member of the Quarry Products Association in Northern Ireland, a director of Habitat for Humanity NI, an executive member of the Lismullen Leadership Programme and a co-founder of the Timoney Leadership Programme. His sporting interest is shown by his company's sponsorship of Antrim GAA for the past 6/7 years.

Seamus is a Fellow of the Irish Academy of Engineering (IAE) where he serves as a Director.

Mary Moloney

Mary graduated from UCC in 1989 with an honours degree in Civil Engineering. In addition to obtaining a Postgraduate Diploma in Environmental Engineering from TCD and a Certificate in Health and Safety from UCD, she was awarded a PhD in Civil Engineering by UCC in 2015. Mary is a Chartered Engineer and Fellow of Engineers Ireland.

Mary has a rich background in a broad range of engineering fields that include the pharmaceutical industry, waste water treatment, flood modelling, drainage and various aspects of environmental compliance.

Mary is a lecturer in the Department of Civil, Structural and Environmental Engineering in the Cork Institute of Technology. She is an active researcher particularly in the area of infrastructure development. Mary is also very involved in the promotion of female role models in STEM.

Mary has served as a member of the editorial board of the International Journal of Civil Engineering and Environmental Systems and has also served on the scientific committees of a number of international conferences). Mary is a Fellow of the Irish Academy of Engineering (IAE) where she serves as a Director.

Don Moore

BE, CEng, FIEI, FIAE Don Moore is a graduate of University College Cork in Civil Engineering.

He is a former Managing Director of ESB International. He has worked on energy sector projects in more than 60 countries in Europe, Asia, North American and Africa. He is a Past-President of the Irish Exporters' Association.

He is a Fellow of the Irish Academy of Engineering and Director who leads the Energy standing committee who have published numerous policy documents on these and related topics.

Terry Nolan

Career Summary

Managing Director and Country Chair Shell Ireland (Dublin)

Management of all Shell's activities in Ireland and overall responsibility for delivery of the Corrib Gas development which will supply up to 60% of Ireland's gas needs at peak production. Led an organization of 150 Shell staff and over 1,000 contractor staff. Completed the construction of the state-of-the-art gas processing plant at Bellanaboy in Co Mayo and installation of the 83-kilometre offshore pipeline (during peak construction phase, Corrib was one of the largest building projects in Ireland). Championed many improvements in safety, especially road safety. Obtained statutory planning approvals for the onshore pipeline in a very complex regulatory framework. Successfully introduced new processes to manage all technical and non-technical risks project risks. Engaged effectively with government and various state agencies on Corrib project activities and exploration drilling offshore Ireland. Retired from Shell in December 2011 on reaching retirement age.

Deputy Managing Director Shell Ireland (Belmullet)

Managed all Corrib Gas activities in Mayo – construction work at the Bellanaboy site, surveys for the re-routing of the onshore pipeline, relations with local community and various stakeholders. Established a strong Shell presence in Mayo with a new office in Belmullet and staff recruited from the Erris area. Implemented significant measures to address local community concerns and maximize benefits from the project to the local area through employment, training programmes and various, community investment schemes e.g. a third-level scholarship programme. Moved from Belmullet to Dublin when appointed Managing Director in June 2008.

Managing Director Shell Egypt (Cairo)

Led a large multidiscipline organisation (750 staff and 1500 contractors) with overall responsibility for Shell's oil and gas operations in Egypt. Managed construction and commissioning of a US\$ 500 million gas processing plant. Implemented improvements in business processes (e.g. SAP) and successfully managed relations with the Egyptian government business partner in a very challenging joint venture work environment.

Operations Manager Shell UK (Aberdeen)

Managed a large engineering organisation (120 Shell staff and 2,000 contractors) with responsibility for all Shell's drilling activities in the North Sea employing a fleet of 10 drilling rigs with a total annual expenditure UK£ 400 million. Led a five-company alliance between Shell and various contractors and successfully delivered 15 new oil and gas field developments in the North Sea. Improved safety and environmental management systems and achieved Shell's best-ever safety performance in North Sea operations.

Neil O'Carroll

Neil has over 40 years experience in the oil industry and is currently responsible for managing the Irish business of Phillips 66 encompassing the commercial business, Whitegate Refinery and Bantry Bay storage terminal.

Neil began his career with the Irish Refining Company in 1970 as a Process

Engineer. After holding various engineering positions including overseas

placements with Exxon Research & Engineering Company, he became

Operations Manager, then Refinery Manager with Irish National Petroleum

Corporation. He oversaw the Management of Change as the company was sold

to Tosco, then Phillips, ConocoPhillips and more recently Phillips 66.

Neil currently chairs the Energy Policy Committee of IBEC and is also involved in the Cork Chamber of Commerce Energy Cork Working Group and is a Committee member of the Energy Institute.

He holds a degree in Chemical Engineering from UCD and is a Fellow of the Institute of Engineers in Ireland. Neil also holds a Diploma in Corporate Management and Direction from UCC.

Chief Executive: Gabriel Dennison

Gabriel graduated as a civil engineer at UCD and has nearly 40 years post-qualification experience. His early career was spent in local government in the Dublin region and in consulting, here and overseas. He joined NTR plc in the late 1990s just as that company was diversifying into waste management and renewable energy and was actively engaged in board level roles in both sectors for many years. Most recently. He moved into industry in the late 1990s and served in various senior management and leadership roles in the waste management and renewable energy sectors for over ten years. From 2012-2017 Gabriel was a Member of the Board of An Bord Pleanála (Irish Planning Appeals Board) and the subsidiary Strategic Infrastructure Board. Gabriel has a research Masters degree and PhD from University College Dublin in environmental engineering, has business qualifications from the University of Ulster (2003) and the Harvard Business School (2007) and holds a diploma in law from the Honorable Society of Kings Inns (2019). He was appointed an Adjunct Professor in engineering by UCD in 2012. Gabriel has been Chief Executive of the Irish Academy of Engineering since mid 2017.

Appendix B

**Irish Academy of Engineering (IAE) Memorandum and Articles of Association
(version 03/05/2012)**

COMPANIES ACTS, 1963 TO 2005

COMPANY LIMITED BY GUARANTEE AND NOT HAVING A

SHARE CAPITAL

MEMORANDUM OF ASSOCIATION

OF

THE IRISH ACADEMY OF ENGINEERING LIMITED

1. The name of the Company is The Irish Academy of Engineering Limited.
2. The Company is a learned society of the engineering profession in Ireland. The main object for which the Company is established is to advance the science and practice of engineering in Ireland and support the expansion and enhancement of engineering education as an essential element in national development and the enhancement of living standards. This object will be achieved by the following fundamental principles:
 - Identifying areas of engineering and science which are developing rapidly and which are vital to future development.
 - Advising Government on all aspects of economic development where engineering has a significant part to play.
 - Furthering the development and expansion of engineering R&D in Ireland.
 - Observing international engineering development and making appropriate recommendations for national application.
 - Maintaining contact with the European Union and other international organisations in matters of concern to the engineering profession.
 - Furthering the pursuit of excellence in Irish engineering and encouraging creativity, innovation and quality in design, development, manufacture, construction, other engineering services and management.
 - Preparing policy statements and drafting opinions on issues referred to the Company by The Institution of Engineers of Ireland trading as Engineers Ireland, the Government, the European Union or other appropriate bodies or organisations.

- Stimulating interest in the preservation and presentation of Ireland's engineering heritage.
- Identifying and honouring engineers whose achievements have been significant.
- Studying and commenting on the social, economic and environmental impact of new developments in science and engineering.
- Identifying and highlighting outstanding Irish engineering achievement.
- Maintaining contact with other international academies in matters of common concern.

Provided that the Company shall not support with its funds any object nor endeavour to impose on, or procure to be observed by its members or others any regulation or restriction which, if any object of the Company, would make it a trade union.

The Company is a sister organisation of The Institution of Engineers of Ireland. It is an independent body and is set up and recognised by The Institution of Engineers of Ireland as such. In the pursuit of its objects, the Company shall be sensitive to and take full cognisance of the objects of The Institution of Engineers of Ireland as set out in the Institution of Engineers of Ireland (Charter Amendment) Act 1969.

3. The following objects set out hereafter are exclusively subsidiary and ancillary to the main object set out above and these objects are to be used only for the attainment of that main object and any income generated therefrom is to be applied for the main object only.
4. The following are the powers of the Company:
 - (1)
 - (a) To furnish and provide the Company's property with such furniture implements, machinery and conveniences as the Company may think desirable.
 - (b) To provide gardens, greenhouses and grounds for recreation and amusement.
 - (c) To raise funds and help raise funds for any charitable purpose.
 - (d) To carry on any business which may seem to the Company capable of being conveniently carried on in connection with the above main object or calculated directly or indirectly to enhance the value of or render profitable any of the Company's property, rights or interests.

- (2) To make, draw, accept, endorse, issue, discount, and otherwise deal with promissory notes, bills of exchange, cheques, letters of credit, circular notes and other mercantile instruments.
- (3) To acquire by purchase, exchange, lease, fee farm grant or otherwise, either for an estate in fee simple or for any less estate or interest, whether immediately or reversionary, and whether vested or contingent: any lands, tenements or hereditaments of any tenure, whether subject or not to any charges or encumbrances and to hold and farm and work or manage or to sell, let, alienate, mortgage, lease or charge land, house property, shops, flats, maisonettes, reversions, interests, annuities, life policies and any other property real or personal, movable or immovable, either absolutely or conditionally and either subject to or not to any mortgage, charge, ground rent or other rents or encumbrances and to pay for any lands, tenements, hereditaments or assets acquired by the Company in cash or debentures or obligations of the Company, whether fully paid or otherwise, or in any other manner.
- (4) To guarantee, support or secure, whether by personal covenant or by mortgaging or charging all or any part of the undertaking, property and assets (present and future) of the Company, or all such methods, the performance of the obligations of and the repayment or payment of the principle amounts and interest of any person, firm or company or the dividends or interest of any securities, including (without prejudice to the generality of the foregoing) any company which is the Company's holding company or a subsidiary or associated company.
- (5) To carry on any other business which may seem to the Company capable of being conveniently carried on in connection with the main object.
- (6) To purchase or otherwise acquire and carry on the whole or any part of the business property, goodwill and assets of any company carrying on or proposing to carry on any business which the Company is authorised to carry on or which can be conveniently carried on in connection with the same, or may seem calculated directly or indirectly to benefit the Company, or possessed of property suitable for the purposes of the Company, and as part of the consideration for any of the acts or things aforesaid or property acquired to undertake all or any of the liabilities of such company or to acquire an interest therein, amalgamate with or enter into any arrangement for sharing profits, or for co-operation, or for limiting competition or for mutual assistance with any such company and to give, issue or accept cash or any shares, debentures or other securities that may be agreed upon, and to hold and retain or sell, mortgage and deal with any shares, debentures or securities so received.
- (7) To promote any company for the purpose of acquiring all or any of the property or liabilities of the Company, or if undertaking any business or operations which may appear likely to assist or benefit the Company or to enhance the value of or

render more profitable any property, assets or business of the Company, or for any other purpose which may be directly or indirectly calculated to benefit the Company.

- (8) To accumulate capital for any purposes of the Company, and to appropriate any of the Company's assets to specific purposes, either conditionally or unconditionally, prior permission to be obtained from Revenue where it is intended to accumulate funds for a period in excess of two (2) years.
- (9) To enter into any arrangements with any government or authority, supreme, municipal, local or otherwise, or company that may seem conducive to the Company's main object, and to obtain from any such government authority or company, any charters, contracts, decrees, rights, privileges and concessions and to carry out, exercise and comply with any such arrangements, charters, contracts, decrees, rights, privileges and concessions.
- (10) To publish transactions of the Company or other such documents as the Company thinks fit and appropriate in pursuit of the main object of the Company.
- (11) To make such awards of the Company on such conditions as the Company may decide in pursuit of the main object of the Company.
- (12) To raise or borrow money, and to secure the payment of money by the issue of or upon debentures or debenture stock, perpetual, terminable or otherwise, or bonds or other obligations, charged or not charged upon, or by mortgage, charge, hypothecation, lien or pledge of the whole or any part of the undertaking, property, assets and rights of the Company, both present and future, and generally in such other manner and on such terms as may seem expedient, and to issue any of the Company's securities, for such consideration and on such terms as may be thought fit, including the power to pay interest on any money so raised or borrowed, and also by a similar mortgage, charge, hypothecation, lien or pledge, to secure and guarantee the performance by the Company of any obligation or liability it may undertake, and to redeem or pay off any such securities.
- (13) To accept membership subscriptions and contributions, donations, sponsorship by individuals, firms and organisations, government or European Union subventions, contract work and any and all other forms of funding which the Company will use in the furtherance of the main object of the Company.
- (14) To, create, maintain, invest and deal with any reserve or sinking funds for redemption of obligations of the Company, or for depreciation of works or stock, or any other purpose to advance the main object of the Company.
- (15) To grant pensions, gratuities, allowances or charitable aid to any person who may have served the Company as an employee, or to the wives, husbands, children or other dependents of such person provided that such pensions, gratuities, allowances or charitable aid shall be no more than that provided by an occupational pension scheme and provided that such occupational pension scheme

has been operated by the Company and the beneficiary of the pensions, gratuities, allowances or charitable aid, or their spouse or parent, has been a member of the occupational pension scheme while employed by the Company; and to make payments towards insurance and to form and contribute to provident and benefit funds for the benefit of any persons employed by the Company and to subscribe or guarantee money for charitable objects.

- (16) To promote freedom of contract and to resist, insure against, counteract and discourage interference therewith to join any lawful federation, union, association or party and to contribute to the funds thereof, or do any other lawful act or thing with a view to preventing or resisting directly or indirectly any interruption of or interference with the Company or any other trade or business or providing or safeguarding against the same, or resisting or opposing any strike movement or organisation which may be thought detrimental to the interest of the Company or its employees and to subscribe to any association or fund for any such purposes.
- (17) To procure the Company to be registered or recognised in any foreign country, colony, dependency or place.
- (18) To pay all or any expenses of, incidental to or incurred in connection with the formation and incorporation of the Company and the raising of its loan capital, or to contract with any person or company to pay the same, and to pay commissions to brokers and others for underwriting, placing, selling or guaranteeing the subscription of any debentures or securities of the Company.
- (19) To do all or any of the above things on any part of the world, and as principals, agents, contractors, trustees or otherwise, and either by or through trustees, agents, sub-contractors or otherwise and either alone in partnership or conjunction with any person or company, and to contract for the carrying on of any operation connected with the Company's main object by any person or company.
- (20) To do all such other things as maybe deemed incidental or conducive to the attainment of the above main object.
- (21) Appoint employees and/or engage an agency or agencies for the administration of its affairs and the affairs of the Company subject to such remuneration and/or terms of contract as it shall determine.

And it is hereby declared that in the construction of this Clause, the word "company", except where used in reference to this Company, shall be deemed to include any person or partnership or other body of persons, whether incorporated or not incorporated and whether domiciled in Ireland or elsewhere, and words denoting the singular number only shall include the plural number and vice versa.

5. The liability of the members is limited.

6. Every member of the Company undertakes to contribute to the assets of the Company in the event of its being wound up while he is a member or within one year afterwards, for payment of debts and liabilities of the Company contracted before he ceases to be a member and the costs, charges and expenses of winding up and for the adjustment of the rights of the contributories among themselves, such amount as may be required not exceeding one Euro.
7. If upon the winding up or dissolution of the Company there remains after the satisfaction of all its debts and liabilities, any property whatsoever, the same shall not be paid to or distributed among the members of the Company but shall be given or transferred to some other charitable institution or institutions having main objects are the promotion of charity and which has main objects similar to the main object(s) of the Company, which other company also meets the requirements of paragraph (b) of section 24(1) of the Companies Act, 1963 and which shall prohibit the distribution of its or their income and property among its or their members to an extent at least as great as imposed on the company under or by virtue of Article 8 hereof, such institution or institutions to be determined by the members of the Company at or before the time of dissolution, or in default thereof by such Judge of the High Court as may have or acquire jurisdiction in the matter, and if and so far as effect cannot be given to such provision, then to some charitable object.
8. The income and property of the Company, wherever derived, shall be applied solely towards the promotion of the main objects of the Company set forth in this Memorandum of Association and no portion thereof shall be paid or transferred, directly or indirectly, by way of dividend, bonus or otherwise howsoever by way of profit, to the members of the Company. Nothing herein shall prevent the payment in good faith of:
 - (a) reasonable and proper remuneration to any member, officer or servant of the Company in return for services actually rendered to the Company, or
 - (b) interest at a rate not exceeding 5% per annum on money lent by any member of the Company to the Company;
 - (c) interest and proper rent for premises demised and let by any member of the Company to the Company:

However no member of the Company's Board of Directors, by whatever title called, shall be appointed to any salaried office of the Company or to any office of the Company paid by fees. No remuneration or other benefit in money or money's worth shall be given by the Company to any member of such Board of Directors or committee of the Company, other than;

- (a) the repayment of out of pocket expenses, or
- (b) interest at the rate aforesaid on money lent to the Company, or

- (c) reasonable and proper rent for premises demised or let to the Company, or
 - (d) a payment to a company of which is a member of the Board of Directors of the Company or a committee of the Company may be a member holding not more than one per cent of the company of that company, such member not to be bound to account for any share or profits he may receive in respect of such a payment.
9. No addition, alteration or amendment shall be made to or in the provisions of this Memorandum of Association for the time being in force unless the same shall have been previously approved in writing by the Revenue Commissioners. No amendments of any kind shall be made to the provisions of Articles 7 and 8 of the Memorandum of Association and no amendments shall be made to the Memorandum & Articles of Association to such extent that they would alter the effect of Articles 7 and 8 of the Memorandum of Association, such that there would be non-compliance with the requirements of section 24(1)(a) and (b) of the Companies Act, 1963.
10. Annual audited accounts shall be kept and made available to the Revenue Commissioners on request.

WE, the several persons whose name and addresses are subscribed, wish to be formed into a Company in pursuance of this Memorandum of Association.

NAMES, ADDRESSES AND DESCRIPTIONS OF SUBSCRIBERS
<p>Professor Eric Kirkland Beatty 512 Doagh Road Newtownabbey Co Antrim BT36 6UP</p> <p>Dr Finbar Callanan 7 Butterfield Close Rathfarnham Dublin 14</p> <p>Mr Liam Connellan "Rosamystica" 3A Knocksinna Park Bray Road Dublin 18</p>

Mr Michael J. Higgins
11 Treesdale
Stillorgan Road
Blackrock
Co Dublin

Mr Peter Langford
17 Willowmere
Rochestown
Cork

Mr Patrick J. Lynch
22 Nutley Avenue
Ballsbridge
Dublin 4

Dr Gordon S. Millington
1 Malone View Road
Belfast BT9 6UP

Mr David Waters
Apartment 5
5 Linden Square
Blackrock
Co Dublin

Dated this day of 20

Witness to the above Signatures:

COMPANIES ACTS, 1963 TO 2005

**A COMPANY LIMITED BY GUARANTEE AND NOT HAVING A SHARE
CAPITAL**

ARTICLES OF ASSOCIATION

OF

THE IRISH ACADEMY OF ENGINEERING LIMITED

INTERPRETATION

The regulations in Table C in the First Schedule to the Companies Act, 1963 shall apply to the Company subject to the alterations herein contained and will so far as not inconsistent with these present, bind the Company and its members.

1. The number of members with which the Company proposes to be registered is eight but the Directors may from time to time, register an increase of members up to the limit on total membership of the Company which is in place at that time.

DEFINITIONS

2. (1) In these Articles, unless the context otherwise requires:
 - the "Acts" means the Companies Acts, 1963 to 2005;
 - the "Annual General Meeting" means the annual general meeting of the Company;
 - the "Auditors" means the auditors or auditor for the time being of the Company;
 - the "Board of Directors" means the board of directors of the Company and may also be referred to as the "Council";
 - the "Committee" means a committee established pursuant to Article 69 of the Articles of Association of the Company;
 - the "Company" means the Irish Academy of Engineering Limited and may also be referred to as the "Academy";

the "Directors" means the Directors for the time being of the Company or Directors present at a directors meeting, and reference to a "Director" shall be construed accordingly;

the "Disciplinary Body" means the disciplinary body of the Company as per Article 12 of the Articles of Association of the Company;

the "Executive Committee" means the executive committee of the Board of Directors of the Company as per Article 62 of the Articles of Association of the Company;

"Fellow(s)" means a Fellow of the Irish Academy of Engineering and a member of the Company;

the "President" means the person (if any) for the time being holding the office of President of the Company having been appointed thereto under the terms of these Articles;

the "President Elect" means the person (if any) for the time being holding the office of President Elect of the Company having been appointed thereto under the terms of these Articles;

the "Roll" means "The Register of Members of the Company"

- (2) The masculine includes the feminine, the singular includes the plural and vice versa.
- (3) Words importing persons include corporations.
- (4) Expressions referring to writing shall, unless the contrary intention appears, be construed as including references to printing, lithography, photography and any other modes of representing or reproducing words in visible form.
- (5) Unless the contrary intention appears, words or expressions contained in these Articles shall bear the same meaning as in the Acts or any statutory modification thereof in force at the date on which these Articles became binding on the Company.
- (6) References to any provision of the Acts shall be construed as a reference to any statutory modification or re-enactment thereof from time to time in force.
- (7) The headings and captions included in these Articles are inserted for convenience of reference only and shall not be considered a part of or affect the construction or interpretation of these Articles.

MEMBERS

3. Membership of the Company shall consist of the subscribers to the Memorandum of Association and such other persons as the Directors shall admit to membership, provided that membership of the Company shall consist of:
 - (a) The President, the President Elect and past presidents of The Institution of Engineers of Ireland, trading as Engineers Ireland.
 - (b) Those Chartered Engineers who are included on the Roll of Honorary Fellows of The Institution of Engineers of Ireland.
 - (c) Chartered Engineers of The Institution of Engineers of Ireland or Chartered Engineers resident in Ireland who by virtue of distinction and achievement are elected members of the Company.
 - (d) Engineers who are not Irish residents but whose contribution to engineering is recognised by the Irish profession as meriting election.
 - (e) Fellows elected under the terms of Article 6 (b) below.
4. Election to membership of the Company under 3(c), 3(d) and 3(e) above shall be by proposal and approval of the Board of Directors. The Board of Directors of the Company shall establish rules of procedure which regulate the nomination, scrutiny and selection of candidates for election to membership of the Company.
5. Members of the Company may use the designatory title FIAE (Fellow of the Irish Academy of Engineering) after their names.
6.
 - (a) The members of the Company shall normally be Chartered Engineers and Fellows of The Institution of Engineers of Ireland or fellows of other institutions with which The Institution of Engineers of Ireland has bilateral agreements for the mutual recognition of the title of Chartered Engineer.
 - (b) Additionally, up to 20% of the Fellows of the Company may be elected under such conditions as the Board of Directors of the Company may deem appropriate from time to time and where the individuals concerned have reached an exceptional level of competence and distinction in areas which are related to the advancement of engineering science.
7. Members shall be required to pay such annual subscription as the members in general meeting may approve on the recommendation of the Board of Directors of the Company.
8. Annual subscriptions may be reduced or waived for individual members at the discretion of the Board of Directors.

9. All members shall observe the rules of procedure, regulations and policies of the Company as shall be published from time to time and are required to order their conduct so as to uphold the dignity, standing and reputation of the Company.
10. No member who has ceased to be on the Roll is entitled to make use of any designation implying connection therewith.
11. The Board of Directors may make, amend and rescind rules to be observed by members, with regard to their conduct in any respect which may be relevant to their position or intended position as members of the Company and may publish rules, directions or guidance as to specific conduct which is to be regarded as proper or as improper, as the case may be.
12. The Board of Directors may:
 - (a) Set up (either temporarily or for a period or ad hoc) a disciplinary body or bodies hereinafter referred to as "the Disciplinary Body" to investigate or adjudicate upon any complaint or allegation made against a member of the Company, and if the same shall be held to be justified, to make such recommendation to the Board of Directors as it or they may consider appropriate.
 - (b) Provide for the publication of decisions of the Disciplinary Body.
 - (c) Determine the constitution and membership and prescribe regulations for procedure of the Disciplinary Body.
 - (d) Deal with any other matter which may be relevant to the Disciplinary Body or its functions.
13. The Board of Directors may from time to time make, amend or rescind rules, regulations and policies which shall be designed to secure that any allegation of improper conduct shall be properly investigated and (if sufficiently serious) be referred to adjudication by a Disciplinary Body as referred to in Article 12 above. Before being called on to deal with any complaint or allegation of improper conduct on his own part, a member shall be informed as to the details of the complaint or allegation. The matter shall be investigated, the proceedings conducted and the decision reached in accordance with natural justice. Any decision shall be made known to members and others so far as may appear to be necessary or desirable with a view to the furtherance of the objects of the Company.
14. The Disciplinary Body shall regulate its own procedure subject to Article 12 (c) above and the requirements of due process and natural justice.

15. For the purposes of this section, "improper conduct" shall include:
- (a) any breach of the rules of the Company or any regulations or rules or directions made thereunder; and
 - (b) any other conduct which shall indicate unfitness to be a member or shall otherwise be unbecoming to a member as such.

For the said purpose, any member who shall be convicted by a court of law of a criminal offence which in the opinion of the Disciplinary Body renders him unfit to be a member shall be deemed to have been guilty of improper conduct.

16. If a member is found to be guilty of improper conduct by a Disciplinary Body, the Disciplinary Body may order one or more of the following as it considers appropriate:-

- (i) admonition;
- (ii) reprimand;
- (iii) suspension from membership;
- (iv) expulsion from membership; and
- (v) that the member make a contribution towards the cost and expenses of the Company of and incidental to any hearing before the Disciplinary Body.

A member shall not be recommended for expulsion except by a majority of at least two thirds of the members of the Disciplinary Body present and voting on the consideration of his case. Any order recommended by the Disciplinary Body must be confirmed by the Board of Directors specifically convened to consider the recommendation of the Disciplinary Body. Where the Board of Directors directs the expulsion of a member, such member may submit an appeal in writing to the Secretary not later than 28 days from midnight on the date the notification of the Disciplinary Body is notified to him. Upon receipt of an appeal it shall be referred by the Secretary to a Committee of Appeal comprising a barrister at law and two members of the Company nominated by the President of the Company. The Committee of Appeal shall regulate its own procedure subject to the requirements of due process and natural justice and its findings shall be final and conclusive.

17. The Board of Directors shall have power to extend the time within which notice of appeal may be given.
18. Membership of the Company shall terminate:
- (1) by death;
 - (2) by resignation of a member delivered in writing to the Secretary giving seven days notice;

- (3) if a member becomes bankrupt or insolvent or compounds with his creditors or if a company or corporation enters into liquidation either voluntary or compulsory or if a receiver is appointed over its assets;
- (4) if a member becomes of unsound mind;
- (5) if a member is convicted of an indictable offence (other than an offence under the Road Traffic Acts);
- (6) if a member is found guilty of improper conduct pursuant to Article 16 above;
- (7) for non-payment of annual subscription in breach of the rules and regulations of the Company.

19. Membership of the Company shall not be transferable.

GENERAL MEETINGS

General Meetings

20.

- (1) Subject to paragraph (2) of this Article, the Company shall in each year hold a general meeting as its Annual General Meeting in addition to any other meeting in that year, and shall specify the meeting as such in the notices calling it; and not more than 15 months shall elapse between the date of one Annual General Meeting of the Company and that of the next.
- (2) So long as the Company holds its first Annual General Meeting within 18 months of its incorporation, it need not hold it in the year of its incorporation or in the year following. Subject to the last preceding Article, the Annual General Meeting shall be held at such time and place as the Directors shall appoint.
- (3) A copy of the Annual Report and the Statement of Accounts to the end of the financial year shall be posted to each member at least 21 days in advance of the Annual General Meeting.

21. All general meetings of the Company shall be held in the State.

Extraordinary General Meetings

22. All general meetings other than Annual General Meetings shall be called extraordinary general meetings.

23. The Directors may whenever they think fit, convene an extraordinary general meeting, and extraordinary general meetings shall also be convened on such requisition, or in default may be convened by such requisitionists, as is provided by section 132 of the Companies Act, 1963. If at any time there are not sufficient Directors capable of acting to form a quorum, any Director or any two members of the Company may convene an extraordinary general meeting in the same manner as nearly as possible as that in which meetings may be convened by the Directors.

NOTICE OF GENERAL MEETINGS

24. Subject to sections 133 and 141 of the Companies Act, 1963, an annual general meeting and a meeting called for the passing of a special resolution shall be called by 21 days' notice in writing at the least and a meeting of the Company (other than an annual general meeting or a meeting for the passing of a special resolution) shall be called by fourteen days' notice in writing at the least. The notice shall specify the day, the place and the hour of the meeting and, in the case of special business, the general nature of that business and shall be given in manner authorized by these Articles to such persons as are under these Articles entitled to receive such notices from the Company.
25. The accidental omission to give notice of a meeting to, or the non-receipt of notice of a meeting by, any person entitled to receive notice shall not invalidate the proceedings at the meeting.

PROCEEDINGS AT GENERAL MEETINGS

Chairman of General Meetings

26. The President, shall preside as chairman at every general meeting of the Company, but, where the President is not present and willing to act, the Directors present shall elect one of their number to be chairman of the meeting; but if no Director is willing to act as chairman or if no Director is present, the members present shall choose one of their number to be chairman of the meeting. The conduct of meetings shall be the responsibility of the chairman whose ruling is final except as qualified by these Articles.

Special Business

27. All business shall be deemed special that is transacted at an extraordinary general meeting, and also that is transacted at an annual general meeting with the exception of the consideration of the accounts, balance sheets and the reports of the Directors and Auditors, the election of Directors in the place of those retiring, the re-appointment of the retiring Auditors and the fixing of the remuneration of the Auditors.

Quorum

28. No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceeds to business save as hereinafter otherwise provided; fifteen members present in person shall be a quorum.
29. If within half an hour from the time appointed for the meeting a quorum is not present, the meeting, if convened upon the requisition of members, shall be dissolved; in any other case it shall stand adjourned to the same day in the next week, at the same time and place or to such other day and at such other time and place as the Directors may determine, and if at the adjourned meeting a quorum is not present within half an hour from the time appointed for the meeting, the member or members present shall be a quorum.

Poll

30. At any general meeting a resolution put to the vote of the meeting shall be decided on a show of hands unless a poll is (before or on the declaration of the result of the show of hands) demanded:-
 - (1) by the chairman of the meeting; or
 - (2) by at least three members present in person at the meeting.
 - (3) by any member or members present in person and representing not less than one-tenth of the total voting rights of all the members having the right to vote at the meeting. Unless a poll is so demanded, a declaration by the chairman that a resolution has, on a show of hands, been carried or carried unanimously or by a particular majority or both, and an entry to that effect in the book containing the minutes of proceedings of the Company shall be conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against such resolution. The demand for a poll may be withdrawn.
31. Unless a poll is demanded as aforesaid, a declaration by the chairman of the meeting that a resolution has, on a show of hands, been carried or carried unanimously or by a particular majority or lost, and an entry to that effect in the book containing the minutes of the proceedings of the Company shall be conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against such resolution.
32. A poll demanded on the election of a chairman of a meeting or on any question of adjournment shall be taken forthwith. A poll demanded on any other question shall be taken either immediately or at such subsequent time (not being more than thirty days from the date of the meeting) and place as the chairman of the meeting may direct. The demand for a poll shall not prevent the continuance of the

meeting for the transaction of any business other than the question on which the poll has been demanded.

33. Except as provided in the last preceding Article, if a poll is duly demanded it shall be taken in such manner as the chairman of the meeting directs, and the result of the poll shall be deemed to be the resolution of the meeting at which the poll was demanded.
34. Where there is an equality of votes whether on a show of hands or on a poll, the chairman of the meeting at which the show of hands takes place or at which the poll is demanded, shall be entitled to a second or casting vote.

RESOLUTIONS IN WRITING

35. Subject to provisions of the Acts, a resolution in writing signed by all the members for the time being entitled to attend and vote on such resolution at a general meeting shall be as valid and effective for all purposes as if the resolution had been passed at a general meeting of the Company duly convened and held and, if described as a special resolution, shall be deemed to be a special resolution within the meaning of the Acts, and such resolution may consist of one document or two or more documents to the same effect each signed by one or more members.

VOTES OF MEMBERS

Right to Vote

36. Every member who is entitled to attend and vote at general meetings shall have one vote.
37. No objection shall be raised to the qualification of any voter except at the meeting or adjourned meeting at which the vote objected to is given or tendered, and every vote not disallowed at such meeting shall be valid for all purposes. Any such objection made in due time shall be referred to the chairman of the meeting, whose decision shall be final and conclusive.

APPOINTMENT OF DIRECTORS

38. The number of the Directors shall be not less than ten and not more than twenty, provided always that the following persons shall be directors of the Company:
 - (a) The President of the Company;
 - (b) The President Elect of the Company;
 - (c) The immediate two past presidents of the Company;
 - (d) The Honorary Treasurer of the Company
 - (e) The Secretary (if a member of the Company).

39. The Directors shall be members of the Company.
40. The Directors shall retire by rotation. A Director may serve for three consecutive years without standing for re-election. At the board meeting as held in the fourth year following the adoption of these Articles, one third of the Directors shall retire from office, and at the equivalent board meeting in every subsequent year one third of the Directors for the time being, or, if their number is not three or a multiple of three, then the number nearest one-third, shall retire from office. The Directors to retire in every year, as outlined above, shall be those who have been longest in office since the last election, but as between persons who became Directors on the same day, those to retire shall (unless they otherwise agree amongst themselves) be determined by lot. A retiring Director shall be eligible for re-election to the Board of Directors of the Company, however provided that no Director may serve as a Director for more than six consecutive years unless he is serving as President, one of the two immediate past presidents of the Company, the President Elect, the Honorary Treasurer or the Secretary of the Company (if a member of the Company).
41. The Company may from time to time by ordinary resolution increase or reduce the number of Directors.
42. The Directors shall have power at any time and from time to time, to appoint any person to be a Director, either to fill a casual vacancy or as an addition to the existing Directors, but so that the total number of Directors shall not at any time exceed the number fixed in accordance with these Articles.

Statutory Removal and Replacement

43. The Company may, by ordinary resolution of which extended notice has been given in accordance with section 142 of the Companies Act, 1963 if required by that section, remove any Director before the expiration of his period of office notwithstanding anything in these Articles or in any agreement between the Company and such Director.
44. The Company may by ordinary resolution, appoint another person who is a member of the Company in place of a Director removed from office under the last preceding Article and, without prejudice to the powers of the Directors to appoint any person to be a Director, may appoint any person to be a Director either to fill a casual vacancy or as an additional Director.

ALTERNATE DIRECTORS

45. A Director may not appoint any person to be an alternate or substitute Director.

DISQUALIFICATION OF DIRECTORS

46. The office of Director shall be vacated if the Director:-
- (1) is adjudged bankrupt or makes any arrangement or composition with his creditors generally; or
 - (2) becomes prohibited from being a Director by reason of any order made under Part VII of the Companies Act, 1990; or
 - (3) resigns his office by notice in writing to the Company; or
 - (4) is convicted of an indictable offence unless the Directors otherwise determine; or
 - (5) if, without leave he is absent (otherwise than on other business of the Company) for three consecutive meetings of the Directors and the Directors pass a resolution that by reason of such absence he has vacated office; or
 - (6) is removed from office of Director pursuant to section 182 of the Companies Act, 1963;
 - (7) is required in writing by all his co- Directors to resign; or
 - (8) ceases to be a member under Article 18 above.

PROCEEDINGS OF DIRECTORS

Notice of Meetings

47. The President may, and the Secretary on the requisition of three Directors shall, at any time summon a meeting of the Directors. Any Director may waive notice of any meeting, and any such waiver may be retrospective. If the Directors so resolve it shall not be necessary to give notice of a meeting of Directors to a Director who, being a resident of the State, is for the time being absent from the State.
48. The Board of Directors shall hold a minimum of four meetings per annum.
49. A Special General Meeting of the Board of Directors may be called on the written requisition of nine or more Directors of the Company provided that the requisition to call such meeting states the motion or motions to be moved.

Regulation of Meetings

50. The Directors may meet together for the dispatch of business, adjourn and otherwise regulate their meetings as they think fit.
51. The President shall preside as chairman at every meeting of Directors, but if the President is not present and willing to act, the President Elect shall preside as chairman of the meeting. If the President Elect is not present and willing to act, the immediate past president of the Company shall preside as chairman of the meeting. If the immediate past president of the Company is not present and willing to act, the Directors present may choose one of their number to be chairman of that meeting.
52. The quorum necessary for the transaction of the business of the Directors may be fixed by the Directors and unless so fixed shall be five.

Voting

53. Questions arising at any meeting shall be decided by a majority of votes. Where there is an equality of votes the chairman of the meeting shall have a second or casting vote.

Telephone Meetings

54.
 - (1) For the purpose of these Articles, the contemporaneous linking together by telephone or other means of audio communication of a number of Directors not less than the quorum shall be deemed to constitute a meeting of the Directors and all the provisions in these Articles as to meetings of the Directors shall apply to such meetings.
 - (2) Each of the Directors taking part in the meeting must be able to hear each of the other Directors taking part.
 - (3) At the commencement of the meeting each Director must acknowledge his presence and that he accepts that the conversation shall be deemed to be a meeting of the Directors.
 - (4) A Director may not cease to take part in the meeting by disconnecting his telephone or other means of communication unless he has previously obtained the express consent of the chairman of the meeting, and a Director shall be conclusively presumed to have been present and to have formed part of the quorum at all times during the meeting unless he has previously obtained the express consent of the chairman of the meeting to leave the meeting as aforesaid.

- (5) A minute of the proceedings at such meeting by telephone or other means of communication shall be sufficient evidence of such proceedings and of the observance of all necessary formalities n certified as a correct minute by the chairman of the meeting.

POWERS AND DUTIES OF DIRECTORS

General Powers

55. The business of the Company shall be managed by the Directors, who may exercise all such powers of the Company as are not, by the Acts or by these Articles, required to be exercised by the Company in general meeting, subject, nevertheless, to any of these Articles, to the provisions of the Acts and to such directions, being not inconsistent with the aforesaid Articles or provisions, as may be given by the Company in general meeting; but no direction given by the Company in general meeting shall invalidate any prior act of the Directors which would have been valid if that direction had not been given.

Powers to Borrow and Grant Security

56. The Directors may exercise all powers of the Company to borrow money and to mortgage or charge its undertaking and property or any part thereof to Issue debentures, debenture stock and other securities whether outright or as security any debt, liability or obligation of the Company or of any third party.

Cheques etc.

57. All cheques, promissory notes, drafts, bills of exchange and other negotiable instruments and all receipts for monies paid to the Company shall be signed, drawn, accepted, endorsed or otherwise executed, as the case may be, by such person or persons and in such manner as the Directors shall from time to time by resolution determine.

Directors' Expenses

58. The Directors may be paid all travelling, hotel and other expenses properly incurred by them in connection with the business of the Company.

Directors' Other Interests

59. A Director who is in any way, whether directly or indirectly, interested in a contract or proposed contract with the Company shall declare the nature of his interest in accordance with section 194 of the Companies Act, 1963.
60. A Director may not vote in respect of any contract, appointment or arrangement (other than directly related to his membership of the Company) in which he is interested, but may be counted in the quorum present at the meeting.

Minutes

61. The Directors shall cause minutes to be made in books provided for the purpose:-
- (1) of all appointments of officers made by the Directors;
 - (2) of the names of the Directors present at each meeting of the Directors; and
 - (3) of all resolutions and proceedings at all meetings of the Company and of the Directors.

EXECUTIVE COMMITTEE

62. There shall be an Executive Committee of the Board of Directors of the Company and the Board of Directors of the Company may delegate to the Executive Committee such powers and duties as are not specifically reserved to itself by resolution of the Board of Directors.
63. The Executive Committee shall consist of:
- (a) The President;
 - (b) The two immediate past presidents of the Company;
 - (c) The President Elect;
 - (d) The Honorary Treasurer
 - (e) The Secretary (if a member of the Company);
 - (f) Three members of the Company elected by the Board of Directors.
64. In the event of a vacancy arising on the Executive Committee under Article 63(f) above, the Board of Directors may co-opt one of the directors on the Board of Directors to fill the vacancy and such co-option shall be notified to the Board of Directors at its next meeting.
65. The Executive Committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Directors. Subject to any such regulations, the proceedings of the Executive Committee shall be governed by the provisions of these Articles regulating the proceedings of Directors so far as they are capable of applying.
66. The President shall preside as chairman at every meeting of the Executive Committee. If the President is not present and willing to act, the President Elect shall preside as chairman of the meeting. If the President Elect is not present and willing to act, the immediate past president of the company shall preside as chairman of the meeting. If the immediate past president of the Company is not present and willing to act, the Directors present may choose one of their number to be chairman of that meeting.

67. The Executive Committee may meet and adjourn as it thinks proper. Questions arising at any meeting shall be determined by a majority of votes of the members present and, where there is an equality of votes, the chairman of the meeting shall have a second or casting vote.
68. All acts done by any meeting of the Directors or of the Executive Committee or by any person acting as a Director or a member of the Executive Committee shall, notwithstanding that it be afterwards discovered that there was some defect in the appointment of any such Director or person acting as aforesaid, or that they or any of them were disqualified, be as valid as if every person had been duly appointed and was qualified to be a Director or a member of the Executive Committee.

OTHER COMMITTEES

69. The Directors may delegate any of their powers to other committees as they think fit (the "Committee"); any Committee may consist of one or more Directors and the Directors shall be entitled to appoint such other person or persons as they consider expedient to a Committee, membership of the Company not being a necessary prerequisite for such appointment, and to fix the remuneration of any such person; and any Committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Directors. Subject to any such regulations, the proceedings of a Committee with two or more members shall be governed by the provisions of these Articles regulating the proceedings of Directors so far as they are capable of applying. The Directors shall appoint a chairman of any such other Committee. Questions arising at any meeting of a Committee shall be determined by a majority of votes of the members present and, where there is an equality of votes, the chairman shall have a second or casting vote.
70. The President, the President Elect and the Secretary shall have the right to attend and speak at any meeting of any Committee.

DIRECTORS AND COMMITTEES' RESOLUTIONS IN WRITING

71.
 - (1) A resolution in writing signed by each Director shall be as valid as if it had been passed at a meeting of the Directors duly convened and held.
 - (2) A resolution in writing signed by each member of a Committee shall be as valid as if it had been passed at its meeting of that Committee duly convened and held.
 - (3) Such a resolution may consist of one document or two or more documents to the same effect each signed by one or more of the signatories.

- (4) Such documents when duly signed may (unless the Directors shall otherwise determine either generally or in any specific case) be delivered or transmitted by facsimile transmission.

PRESIDENT

72. The Directors shall elect a President of the Company subject to the approval of the members of the Company. The President shall serve as Chairman of the Board of Directors. The President shall normally hold office for one year and until the next ensuing Annual General Meeting following his appointment.

PRESIDENT ELECT

- 73.. The Directors shall elect a President Elect of the Company subject to the approval of the members of the Company. The President Elect shall normally be a past president of The Institution of Engineers of Ireland. The President Elect shall hold office for one year and until the next ensuing Annual General Meeting following his appointment. The President Elect shall normally be the succeeding President. If no past president of The Institution of Engineers of Ireland is available to serve as President Elect of the Company, the Directors of the Company shall be empowered to elect one of the Directors of the Company as President Elect of the Company subject to the approval of the members of the Company.

HONORARY TREASURER

74. The Directors may from time to time elect an Honorary Treasurer from amongst their own number on such terms and for such period as the Directors think fit but any Honorary Treasurer may be removed from office by the Directors before the expiry of such period.

SECRETARY

75. The Secretary shall be appointed by the Directors for such term, and upon such conditions as they may think fit, and any Secretary so appointed may be removed by them.
76. A provision of the Acts or these Articles requiring or authorising a thing to be done by or to a Director and the Secretary shall not be satisfied by its being done by or to the same person acting both as Director and as, or in place of, the Secretary.

HONORARY TITLES

77. The Company may confer Honorary Fellowship on persons of distinction who may or may not be members of the engineering profession and whose association with the Company is considered appropriate to the aims, objects and status of the Company.
78. The members of the Company in Annual General Meeting shall have sole authority to confer such an honorary title on the recommendation of the Board of Directors.

SEAL

79. The Seal shall be used only by the authority of the Directors or a committee of directors authorised by the Directors in that behalf, and every instrument to which the Seal shall be affixed shall be signed by a Director and shall be countersigned by the Secretary or by a second Director or by some other person appointed by the Directors for the purpose.

ACCOUNTS

80. The Directors shall cause proper books of accounts to be kept relating to:-
 - (1) all sums of money received and expended by the Company and the matters in respect of which the receipt and expenditure takes place;
 - (2) all sales and purchases of goods by the Company; and
 - (3) the assets and liabilities of the Company.

Proper books shall not be deemed to be kept if they are not such books of account as are necessary to give a true and fair view of the state of the Company's affairs and to explain its transactions.

81. The books of account shall, subject to section 202 of the Companies Act, 1990, be kept at such place, as the Directors think fit, and shall at all reasonable times be open to the inspection of the Directors.
82. The Directors shall from time to time determine whether and to what extent and at what times and places and under what conditions or regulations the accounts and books of the Company or any of them shall be open to the inspection of members who are not Directors, and no member who is not a Director shall have any right of inspecting any account or book or document of the Company except as conferred by law or authorised by the Directors or by the Company in general meeting.
83. The Directors shall from time to time cause to be prepared and to be laid before the annual general meeting of the Company such profit and loss accounts, balance

sheets, group accounts and reports as are required by the Statutes to be prepared and laid before the annual general meeting of the Company.

84. A copy of every balance sheet (including every document required by law to be annexed thereto) which is to be laid before the Annual General Meeting of the Company together with a copy of the Directors' report and Auditors' report shall, not less than 21 days before the date of the annual general meeting, be sent to every person entitled under the provisions of the Statutes to receive them.

AUDIT

85. Auditors shall be appointed and their rights and duties regulated in accordance with sections 160 to 163 of the Companies Act, 1963 as amended and extended by sections 182 to 197 of the Companies Act, 1990.

NOTICES

86. A notice may be given by the Company to any member either personally or by sending it by post to him to his registered address. Where a notice is sent by post, service of the notice shall be deemed to be effected by properly addressing, prepaying and posting a letter containing the notice, and to have effect in the case of the notice of a meeting at the expiration of 72 hours after the letter containing the same is posted, and in any other case at the time at which the letter would be delivered in the ordinary course of post.
87. Notice of every general meeting shall be given in any manner hereinbefore authorised to:-
- (1) every member entitled to attend and vote thereat;
 - (2) every Director; and
 - (3) the Auditors.

INDEMNITY

88. Subject to section 200 of the Companies Act, 1963 every Director, Secretary and other officer for the time being of the Company shall be indemnified out of the assets of the Company against any liability incurred by him in defending any proceedings, whether civil or criminal, in relation to his acts while acting in such office, in which judgment is given in his favour or in which he is acquitted, or in connection with any application under section 391 of the Companies Act, 1963 in which relief is granted to him by the court.

**Names, Addresses and
Description of Subscribers**

Professor Eric Kirkland Beatty
512 Doagh Road
Newtownabbey
Co Antrim BT36 6UP

Dr Finbar Callanan
7 Butterfield Close
Rathfarnham
Dublin 14

Mr Liam Connellan
"Rosamystica"
3A Knocksinna Park
Bray Road
Dublin 18

Mr Michael J. Higgins
11 Treesdale
Stillorgan Road
Blackrock
Co Dublin

Mr Peter Langford
17 Willowmere.
Rochestown
Cork

Mr Patrick J. Lynch
22 Nutley Avenue
Ballsbridge
Dublin 4

Dr Gordon S. Millington
1 Malone View Road
Belfast BT9 6UP

Mr David Waters
Apartment 5
5 Linden Square
Blackrock
Co Dublin

Dated this day of 20

Witness to the above Signatures:

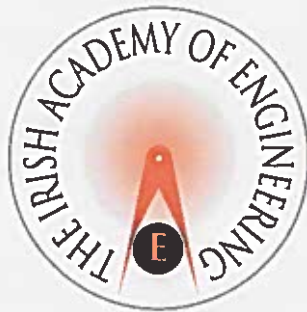
t:\cm\Irish academy of engineers\memorandum & articles of association final post SGM.doc

as amended May 2012

Appendix C

Irish Academy of Engineering (IAE) Rules and Procedures (version July 2016)

The Irish Academy of Engineering



General Regulations and Rules of Procedure

The Academy

The Irish Academy of Engineering was founded in May 1997 by The Institution of Engineers of Ireland, now operating as "Engineers Ireland". The Fundamental Principles governing the Academy had been approved by the Council of the Institution on 30 November 1996. At that time the Institution saw the need to afford engineering an additional and enhanced profile in national affairs, and although the Academy is an independent body it still retains a close affiliation with the Institution and enjoys its support.

During its formative years the Academy operated as an unincorporated association of its members. However, legal advice suggested that this was not an ideal situation as all the members could be liable to possible litigation were a claim to be made against the Academy as a result of information or opinions expressed in its reports or other work. As a result, at a Special General Meeting of the members on 11th January 2007, it was unanimously agreed to seek to change the status of the Academy to that of an incorporated company limited by guarantee and without share capital. It was further agreed that once registered, the company should seek the revenue advantages of having charitable status. The SGM in January 2007 passed a motion to adopt the new Memorandum and Articles of Association of The Irish Academy of Engineering (Limited) in place of the original Fundamental Principles and By-Laws. At the request of the Revenue Commissioners minor modifications were made to clauses 3 and 4 of the Memorandum of Association. These changes were approved by the Council and by the members at an SGM held on 2nd September 2008.

The applications for incorporation and charitable status were lodged in February 2007 and the Academy was registered as an incorporated company on 4 May 2007 (Registration No 439234). In view of the likely granting of charitable status the Registrar of Companies registered the company as "The Irish Academy of Engineering" as companies holding charitable status can claim exemption from having to include "Limited" in their name. The Revenue Commissioners granted charitable status to the Academy in October 2008 under registration CHY 18046.

Membership of the Academy is limited to one hundred and fifty chartered engineers and members of related disciplines who have been recognised for the achievement and eminence of their professional careers. As an all Ireland body the Academy performs a valuable role in linking the profession in both jurisdictions on the island in matters of common interest and concern.

The core of the Academy's work is the preparation of strategic forward looking policy reports looking at issues in the longer term. These have included such reports as, "Towards a Population of 6 Million – Implications for Spatial Strategy", "Future Engineering Education", "Ireland's Environment", "Transport in Ireland to 2050" and a review of future workforce requirements in "Engineering a Knowledge Island 2020". More recent reports have included a report on "Future Energy Policy in Ireland", "Ireland at Risk – Adaptation for Climate Change" and "Infrastructure for an Island Population of 8 Million". The contribution of these reports to future policy and economic development has been greatly valued by the two administrations on the island. This work is largely undertaken by the Members who provide their service and expertise in a voluntary capacity.

In June 2007 the Council adopted a 4 Year Strategic Development Plan with objectives based on the original Fundamental Principles but with strategic targets set to meet the changing demand required of the incorporated body.

In July 2008, as part of this development strategy, the Council endorsed the formation of six Standing Committees to focus and bring forward the work of the Academy in the areas of Spatial Planning, Information & Computer Technology – ICT, Climate Change, Energy, Engineering Research & Economic Development and Biotechnology & Health.

General Regulations and Rules of Procedure

		page
	The Academy	2
Section 1	Introduction	4
Section 2	Registered Name	4
Section 3	Incorporation	4
Section 4	Charitable Status	4
Section 5	Definitions	5
Section 6	Memorandum of Association & Fundamental Principles	6
Section 7	Strategic Objectives	9
Section 8	Members of the Academy	10
Section 9	General Meetings of the Academy	15
Section 10	The Council of the Academy	18
Section 11	Committees of the Council (Executive and Membership Committees)	23
Section 12	Officers of the Council	25
Section 13	Representing the Academy	26
Section 14	Accounts	27
Section 15	Audit	27
Section 16	Annual Report	28
Section 17	Transactions	28
Section 18	Awards	28
Section 19	Honorary Titles	28
Section 20	The Seal	28
Section 21	Rules of Procedure	28
Section 22	Rights of Membership	29
Section 23	Notices	29
Section 24	Indemnity	29

Section 1

INTRODUCTION

These General Regulations and Rules of Procedure complement the statutes of the Irish Academy of Engineering as set out in its Memorandum and Articles of Association. They are prepared to assist the Council of the Academy in its responsibility for the efficient and proper governance of the incorporated body.

In all respects the Memorandum and Articles of Association of the Academy take precedence.

Some original By-Laws of the Academy were not included in the Articles of Association at the time of incorporation as they were considered to be matters of internal procedure outside the requirements of the Companies Acts. These former By-Laws are now included in this document as regulations. Also included are those sections of the Memorandum and Articles of Association concerned with governance so that the document becomes an inclusive reference guide to all key administrative functions of the Academy.

For convenience, the document is written in terms of the Academy, Council and President rather than the Company style of Directors and Chairman used in the Articles of Association.

Section 2

REGISTERED NAME

The registered name of the Academy is "*The Irish Academy of Engineering*".

In the Irish language, the name of the Academy is "*Acadamh Innealtóireachta na hÉireann*".

Section 3

INCORPORATION

The Academy is registered in Ireland as an incorporated company limited by guarantee and without share capital. As such, under section 24(1) of the Companies Act 1963 the Academy is exempt from having to use the word 'Limited' in its title since its objects are the promotion of science and education and it is a not-for-profit organisation which prohibits the payment of dividends to its members. The Academy's company registration number is No. 439234.

"Engineers Ireland" provides accommodation for the secretariat of The Academy.

The registered office of the Academy is;

22 Clyde Road
Ballsbridge
Dublin 4

Telephone: +353 (0)1 6651337

Email: academy@engineersireland.ie

Section 4

CHARITABLE STATUS

The Revenue Commissioners have recognised the Academy as having charitable status in Ireland. The Academy's is registered as charity No CHY 18046

Section 5

DEFINITIONS

Including all described in Article 2 of the Articles of Association

5.1 In this document, unless the context otherwise requires:

“Academy” means the Irish Academy of Engineering (Ltd) referred to in the Memorandum and Articles of Association as the Company.

“Acts” means the Companies Acts, 1963 to 2005;

“Annual General Meeting” means the annual general meeting of the Academy/Company;

“Auditors” means the auditors or auditor for the time being of the Academy;

“Committee” means a committee established pursuant to Article 69 of the Articles of Association of the Academy/Company;

“Council” means The Council of The Academy and may also be referred to as the Board of Directors.

“Directors” means the Members of Council/Board of Directors for the time being of the Academy/Company;

“Disciplinary Body” means the disciplinary body of the Academy/Company as per Article 12 of the Articles of Association;

“Executive Committee” means the executive committee of the Council/Board of Directors as per Article 62 of the Articles of Association;

“Fellow(s)” means a Fellow of the Irish Academy of Engineering and a member of the Academy/Company;

“Fundamental Principles” means the fundamental principles governing the establishment, objectives and membership of the Academy as approved by the Council of the Institution on November 30 1996.

“Institution” means The Institution of Engineers of Ireland – *‘Engineers Ireland’*.

“President” means the person (if any) for the time being holding the office of President of the Academy having been appointed thereto by the Council under the terms of the Articles;

“President Elect” means the person (if any) for the time being holding the office of President Elect of the Academy having been appointed thereto by the Council under the terms of the Articles. The President Elect will normally succeed the President;

“Regulations and Rules of Procedure” mean such rules and regulations as may be made by the Council/Directors.

“Roll” means “The Register of Members of the Academy/Company”

“Secretary” means the person appointed as Secretary of the Academy and includes any person appointed by the Council to perform the duties of Secretary.

5.2 The masculine includes the feminine, singular includes plural and vice versa.

5.3 Words importing persons include corporations.

5.4 Expressions referring to writing shall, unless the contrary intention appears, be construed as including references to printing, lithography, photography and any other modes of representing or reproducing words in visible form.

5.5 Unless the contrary intention appears, words or expressions contained in the Articles shall bear the same meaning as in the Acts or any statutory modification thereof in force at the date on which the Articles became binding on the Academy/Company.

5.6 References to any provision of the Acts shall be construed as a reference to any statutory modification or re-enactment thereof from time to time in force.

Section 6

MEMORANDUM OF ASSOCIATION

(Extracts from the Memorandum of Association as revised in September 2008)

6.1 Main Object

Memo 2

The Irish Academy of Engineering is a learned society of the engineering profession in Ireland.

The main object for which the Academy is established is:

“To advance the science and practice of engineering in Ireland and support the expansion and enhancement of engineering education as an essential element in national development and the enhancement of living standards on the island.”

6.2 Fundamental Principles

Memo 3

The following objects or Fundamental Principles are exclusively subsidiary and ancillary to the main object set out above and these objects are to be used only for the attainment of the main object and any income generated therefrom is to be applied for the main object only.

- Identifying areas of engineering and science which are developing rapidly and which are vital to future development.
- Advising Government on all aspects of economic development where engineering has a significant part to play.
- Furthering the development and expansion of engineering R&D in Ireland.
- Observing international engineering development and making appropriate recommendations for national application.
- Maintaining contact with the European Union and other international organizations in matters of concern to the engineering profession.
- Furthering the pursuit of excellence in Irish engineering and encouraging creativity, innovation and quality in design, development, manufacture, construction, other engineering services and management.
- Preparing policy statements and drafting opinions on issues referred to the Academy by The Institution of Engineers of Ireland trading as Engineers Ireland, the Government, the European Union or other appropriate bodies or organizations.
- Stimulating interest in the preservation and presentation of Ireland's engineering heritage.
- Identifying and honouring engineers whose achievements have been significant.
- Studying and commenting on the social, economic and environmental impact of new developments in science and engineering.
- Identifying and highlighting outstanding Irish engineering achievement.
- Maintaining contact with other international academies in matters of common concern.

The Academy shall not support with its funds any object nor endeavour to impose on, or procure to be observed by its members or others any regulation or restriction which, if any object of the Academy, would make it a trade union.

6.3 Powers of the Academy (extracts)

- Memo. 4
- 1(c) To raise funds and help raise funds for any charitable purpose.
 - 1(d) To carry on any business which may seem to the Academy capable of being conveniently carried on in connection with the above main object or calculated directly or indirectly to enhance the value of or render profitable any of the Company's property, rights or interests.
 - (8) To accumulate capital for any purposes of the Academy, and to appropriate any of the Academy's assets to specific purposes, either conditionally or unconditionally, prior permission to be obtained from Revenue where it is intended to accumulate funds for a period in excess of two (2) years.
 - (9) To enter into any arrangements with any government or authority, supreme, municipal, local or otherwise, or company that may seem conducive to the Academy's main object, and to obtain from any such government authority or company, any charters, contracts, decrees, rights, privileges and concessions and to carry out, exercise and comply with any such arrangements, charters, contracts, decrees, rights, privileges and concessions.
 - (10) To publish transactions of the Academy or other such documents as the Academy thinks fit and appropriate in pursuit of the main object.
 - (11) To make such awards of the Academy on such conditions as the Academy may decide in pursuit of the main object.
 - (13) To accept membership subscriptions and contributions, donations, sponsorship by individuals, firms and organisations, government or European Union subventions, contract work and any and all other forms of funding which the Academy will use in the furtherance of the main object.
 - (14) To, create, maintain, invest and deal with any reserve or sinking funds for redemption of obligations of the Academy, or for depreciation of works or stock, or any other purpose to advance the main object.
 - (15) To grant pensions, gratuities, allowances or charitable aid to any person who may have served the Academy as an employee, or to the wives, husbands, children or other dependents of such person provided that such pensions, gratuities, allowances or charitable aid shall be no more than that provided by an occupational pension scheme and provided that such occupational pension scheme has been operated by the Academy.
 - (18) To pay all or any expenses of, incidental to or incurred in connection with the formation and incorporation of the Academy and the raising of its loan capital, or to contract with any person or company to pay the same, and to pay commissions to brokers and others for underwriting, placing, selling or guaranteeing the subscription of any debentures or securities.

- (21) To appoint employees and/or engage an agency or agencies for the administration of its affairs and the affairs of the Academy subject to such remuneration and/or terms of contract as it shall determine.

6.4 Limited Liability

- Memo. 5 The liability of the members is limited.
- Memo. 6 Every member of the Academy undertakes to contribute to the assets of the Academy in the event of its being wound up while he is a member or within one year afterwards, for payment of debts and liabilities of the Academy contracted before he ceases to be a member and the costs, charges and expenses of winding up and for the adjustment of the rights of the contributories among themselves, such amount as may be required not exceeding one Euro.

6.5 Winding Up – Distribution of assets to another Charity

- Memo. 7. If upon the winding up or dissolution of the Academy there remains after the satisfaction of all its debts and liabilities, any property whatsoever, the same shall not be paid to or distributed among the members of the Academy but shall be given or transferred to some other charitable institution or institutions having main objects are the promotion of charity and which has main objects similar to the main object(s) of the Academy, which other company also meets the requirements of paragraph (b) of section 24(1) of the Companies Act, 1963 and which shall prohibit the distribution of its or their income and property among its or their members to an extent at least as great as imposed on the company under or by virtue of Article 8 hereof, such institution or institutions to be determined by the members of the Academy at or before the time of dissolution, or in default thereof by such Judge of the High Court as may have or acquire jurisdiction in the matter, and if and so far as effect cannot be given to such provision, then to some charitable object.

6.6 Payment Restrictions

- Memo. 8 The income and property of the Academy, wherever derived, shall be applied solely towards the promotion of the main objects of the Academy set forth in this Memorandum of Association and no portion thereof shall be paid or transferred, directly or indirectly, by way of dividend, bonus or otherwise howsoever by way of profit, to the members of the Academy. Nothing herein shall prevent the payment in good faith of:
- (a) reasonable and proper remuneration to any member, officer or servant of the Academy in return for services actually rendered to the Academy, or
 - (b) interest at a rate not exceeding 5% per annum on money lent by any member of the Academy to the Academy;
 - (c) interest and proper rent for premises demised and let by any member of the Academy to the Academy:

However no member of the Academy's Council or Board of Directors, by whatever title called, shall be appointed to any salaried office of the Academy or to any office of the Academy paid by fees. No remuneration or other benefit in money or money's worth shall be given by the Academy to any member of the Council or committee of the Academy, other than;

- (a) the repayment of out of pocket expenses, or
- (b) interest at the rate aforesaid on money lent to the Academy, or
- (c) reasonable and proper rent for premises let to the Academy, or
- (d) a payment to a company of which a member of the Council or a committee of the Academy may be a member holding not more than one per cent of the company of that company.

6.7 Prior approval by the Revenue Commissioners to any amendment

Memo. 9 No addition, alteration or amendment shall be made to or in the provisions of this Memorandum of Association for the time being in force unless the same shall have been previously approved in writing by the Revenue Commissioners. No amendments of any kind shall be made to the provisions of Articles 7 and 8 of the Memorandum of Association and no amendments shall be made to the Memorandum & Articles of Association to such extent that they would alter the effect of Articles 7 and 8 of the Memorandum of Association, such that there would be non-compliance with the requirements of section 24(1)(a) and (b) of the Companies Act, 1963.

6.8 Audited Accounts

Memo.10 Annual audited accounts shall be kept and made available to the Revenue Commissioners on request.

Section 7

STRATEGIC OBJECTIVES

The thirteen fundamental principles (above) were defined in 1997 as the means whereby the Academy would achieve its main objective. These fundamental principles are as relevant as ever, however to give added focus and impact to the Academy's Strategic Plan they have been rearranged into four Strategic Objectives to build on strengths, broaden activity and increase impact. The Academy's four Strategic Objectives for the next four years are:

- To enhance social & economic development and guide & influence public policy
- To contribute further to engineering education and innovation
- To honour achievement and preserve Ireland's engineering heritage
- To improve our contribution by strengthening the Academy

Section 8

MEMBERS OF THE ACADEMY

8.1 Total Membership

Article 1 The number of members with which the Academy is registered is eight but the Council may from time to time, register an increase of members up to the limit on total membership which is in place at that time.

The total limit on membership of the Academy at present is 150 members.

8.2 Membership

Article 3 Membership of the Academy shall consist of the subscribers to the Memorandum of Association and such other persons as the Council shall admit to membership, provided that membership of the Academy shall consist of:

- (a) The President, the President Elect and past presidents of The Institution of Engineers of Ireland, now operating as Engineers Ireland.
- (b) Those Chartered Engineers who are included on the Roll of Honorary Fellows of The Institution of Engineers of Ireland.
- (c) Chartered Engineers of The Institution of Engineers of Ireland or Chartered Engineers resident in Ireland who by virtue of distinction and achievement are elected members of the Academy.
- (d) Engineers whose contribution to engineering is recognised as meriting election.
- (e) Fellows elected under the terms of Article 6 (b) below.

Article 6

- (a) The members of the Academy shall normally be Chartered Engineers and Fellows of The Institution of Engineers of Ireland or fellows of other institutions with which The Institution of Engineers of Ireland has bilateral agreements for the mutual recognition of the title of Chartered Engineer.
- (b) Additionally, up to 20% of the Fellows of the Academy may be elected under such conditions as the Council may deem appropriate from time to time and where the individuals concerned have reached an exceptional level of competence and distinction in areas which are related to the advancement of engineering science.

Article 4 Election to membership of the Academy under Articles 3(c), 3(d) and 3(e) above shall be by proposal and approval of the Council.

The Council shall establish rules of procedure which regulate the nomination, scrutiny and selection of candidates for election to membership of the Academy.

8.3 Vacancies

Procedure 8.3.1 The Council shall review annually the Academy's membership and decide on the maximum number of vacancies, if any, which in the year in question are to be filled by election under Article 4. That is in addition to new members automatically admitted under Articles 3(a) and 3(b).

Procedure 8.3.2 The Membership Committee of Council shall examine nominations for election to membership under Articles 3(c), 3(d) and 3(e) and Article 6 above and make recommendations to Council on those candidates considered suitable for election.
(See Section 11.3 for the terms of reference of the Membership Committee).

8.4 President Elect of the Institution of Engineers of Ireland

Procedure 8.4.1 The President Elect of the Institution (Engineers Ireland) shall be offered membership of the Academy under Article 3(a) if he is not already an elected member. The Secretary shall write on behalf of the Council to proffer membership and if this is accepted the President Elect of the Institution shall receive his certificate of membership at the next conferment ceremony.

8.5 Honorary Fellows of the Institution of Engineers of Ireland

Procedure 8.5.1 All newly elected Honorary Fellows of the Institution (Engineers Ireland) who are Chartered Engineers shall be offered membership of the Academy under Article 3(b) if they are not already elected members of the Academy. The Secretary shall write on behalf of the Council to proffer membership and if this is accepted the Honorary Fellow of the Institution shall receive his certificate of membership at the next conferment ceremony.

8.6 Nomination of Members under Articles 3(c), 3(d) and 3(e)

Procedure 8.6.1 Not less than three months before nominations are to reach the Membership Committee the Secretary on behalf of Council shall invite Members of the Academy to nominate potential new members, stipulating the closing date for receipt of nominations for the year in question. (Note: Members may submit nomination papers to the Secretary at any time during the year; however custom and practice has led the Academy to adopt an annual process for the selection/election of new members as detailed below.)

Procedure 8.6.2 Nominations for membership of the Academy shall be made in writing by any one or more members, other than by the President, the President Elect or members of the Membership Committee. Each nomination shall be accompanied by a summary CV of the nominee prepared or subscribed to and signed by the nominator or nominators if more than one. The nominee shall not be informed of the nomination, nor consulted in preparing the summary CV. The completed nomination shall be submitted to the Secretary of the Academy for forwarding directly to the Membership Committee.

Procedure 8.6.3 The Secretary shall forward all new nominations, and copies of any residual valid nominations from previous years, to the members of the Membership Committee, to be with them not later than two months before the committee's recommendations for membership must be issued (which is normally five days before the Council meeting to consider the committee's recommendations),

together with notification to the committee of said date. (Note: The President and the President Elect will not normally attend meetings of the membership committee concerned with the examination and recommending of new members.)

- Procedure 8.6.4** Within two months of receiving the set of nominations, the Membership Committee shall select from the nominations a ranked list of nominees suitable to fill the available vacancies, which list shall be submitted to Council by the Committee chairman through the Secretary. The number of names on the list may be less but not greater than the number of vacancies notified to the committee by Council. The Committee shall also, where practicable, select one additional nomination suitable for election; this nomination shall be kept in reserve in case and until Council should request it.
- Any invalid nomination shall be returned to the nominators by the Secretary. If any nomination is considered by the Membership Committee to be unsuitable for membership, the nominators shall be so informed by the Secretary.
- Procedure 8.6.5** Residual nominations (i.e. those not elected in the current year and not deemed by the Membership Committee to be invalid nominations or unsuitable candidates) shall remain valid for three years from the date of submission, subject to the Secretary seeking and receiving annually from each nominator confirmation of their wish that this be done.
- Procedure 8.6.6** Council will decide on a confidential, provisional basis which nominees, if any, from the list may be offered membership. This decision will be contingent on the Secretary approaching the nominee to seek assurances that the nominee if proffered membership will accept and will undertake to sustain and contribute to the work of the Academy, and the Secretary receiving such assurances in writing.
- Procedure 8.6.7** Following confirmation of receipt by the Secretary of the sought assurances, Council will finalise its decision on the nominees who are to be offered membership.
- Procedure 8.6.8** Council shall inform the Council of the Institution (Engineers Ireland) of its decision and announce the names of the new members.
- Procedure 8.6.9** The Secretary shall write and confirm membership to the selected nominees. The letter shall seek also the return of the pro-forma information required for registration, including a photograph and short CV by the nominee.

8.7 Typical Schedule for Election of Members

as early as possible and before 30 June	Annually, by letter from the Secretary, members are reminded of their right to nominate new members to the Academy and are invited to submit the appropriate nomination papers. Note: Members may submit nomination papers to the Secretary any time during the year, however custom and practice has led the Academy to adopt an annual process for the selection/election of new members as detailed below.
August Council	Council decides on maximum number of vacancies for the coming year.
July/Aug.	Two months (at least) for Members completion of nomination papers.
31 August	Closing date for Secretary to receive completed nomination papers for consideration in current year.

September	Secretary circulates to the Membership Committee all new and existing valid nomination papers, together with advice on Council's decision on maximum number of vacancies to be filled.
30 Sept.	Deadline for receipt of nomination paper by Membership Committee
October Council	Council informed by Secretary of number of nomination papers under consideration
Oct/Nov	Two months for Membership Committee to consider nomination papers.
30 Nov	Deadline for Membership Committee to issue its decisions and election recommendations to the Secretary for onward transmission to Council.
December Council	Council considers the Membership Committee's list of recommended nominees for election and approves a confidential 1 st list of persons to be proffered membership.
January	Secretary seeks the required assurances (see 8.6.f) before proffering membership to those named on Council's 1 st list and invites their acceptance. [In the event of non-acceptance by a 1 st list candidate, the Secretary will advise the Council (or Executive if so delegated) of the Membership Committee's recommended reserve name from those eligible nominees being held over, and if approved will seek the required assurances before proffering membership to that person].
February Council	Council reviews all acceptances and confirms a final list of newly elected Academy members for the coming year.
after Feb Council	Secretary informs those new members on the final list of their election.
Feb/March	Council informs 'Engineers Ireland' of the proposed new members
May	Conferment Ceremony during the Annual Academy Dinner

8.8 Designatory Title

- Article 5 Members of the Academy may use the designatory title FIAE (Fellow of the Irish Academy of Engineering) after their names.
- Article 10 No member who has ceased to be on the Roll (Register of Members) is entitled to make use of any designation implying connection therewith.

8.9 Annual Subscription

- Article 7 Members shall be required to pay such annual subscription as the members in general meeting may approve on the recommendation of the Council.
- Article 8 Annual subscriptions may be reduced or waived for individual members at the discretion of the Council. Any such reduction or waiver should be formally notified immediately by the Honorary Treasurer to the Secretary.

see also Article 18(7) regarding non-payment of subscriptions.

8.10 Conduct of Members & Disciplinary Action

- Article 9 All members shall observe the rules of procedure, regulations and policies of the Academy as shall be published from time to time and are required to order their conduct so as to uphold the dignity, standing and reputation of the Academy.

Article 11 The Council may make, amend and rescind rules to be observed by members, with regard to their conduct in any respect which may be relevant to their position or intended position as members of the Academy and may publish rules, directions or guidance as to specific conduct which is to be regarded as proper or as improper, as the case may be.

Article 12 The Council may:

- (a) Set up (either temporarily or for a period or ad hoc) a disciplinary body or bodies hereinafter referred to as “the Disciplinary Body” to investigate or adjudicate upon any complaint or allegation made against a member of the Academy, and if the same shall be held to be justified, to make such recommendation to the Council as it or they may consider appropriate.
- (b) Provide for the publication of decisions of the Disciplinary Body.
- (c) Determine the constitution and membership and prescribe regulations for procedure of the Disciplinary Body.
- (d) Deal with any other matter which may be relevant to the Disciplinary Body or its functions.

Article 13 The Council may from time to time make, amend or rescind rules, regulations and policies which shall be designed to secure that any allegation of improper conduct shall be properly investigated and (if sufficiently serious) be referred to adjudication by a Disciplinary Body as referred to in Article 12 above. Before being called on to deal with any complaint or allegation of improper conduct on his own part, a member shall be informed as to the details of the complaint or allegation. The matter shall be investigated, the proceedings conducted and the decision reached in accordance with natural justice. Any decision shall be made known to members and others so far as may appear to be necessary or desirable with a view to the furtherance of the objects of the Academy.

Article 14 The Disciplinary Body shall regulate its own procedure subject to Article 12 (c) above and the requirements of due process and natural justice.

Article 15 For the purposes of this section, “improper conduct” shall include:

- (a) any breach of the rules of the Academy or any regulations or rules or directions made thereunder; and
- (b) any other conduct which shall indicate unfitness to be a member or shall otherwise be unbecoming to a member as such.

For the said purpose, any member who shall be convicted by a court of law of a criminal offence which in the opinion of the Disciplinary Body renders him unfit to be a member shall be deemed to have been guilty of improper conduct.

Article 16 If a member is found to be guilty of improper conduct by a Disciplinary Body, the Disciplinary Body may order one or more of the following as it considers appropriate:-

- (i) admonition;
- (ii) reprimand;
- (iii) suspension from membership;
- (iv) expulsion from membership; and
- (v) that the member make a contribution towards the cost and expenses of the Academy of and incidental to any hearing before the Disciplinary Body.

A member shall not be recommended for expulsion except by a majority of at least two thirds of the members of the Disciplinary Body present and voting on the consideration of his case. Any order recommended by the Disciplinary Body must be confirmed by the Council specifically convened to consider the recommendation of the Disciplinary Body. Where the Council directs the expulsion of a member, such member may submit an appeal in writing to the Secretary not later than 28 days from midnight on the date the notification of the Disciplinary Body is notified to him. Upon receipt of an appeal it shall be referred by the Secretary to a Committee of Appeal comprising a barrister at law and two members of the Academy nominated by the President of the Academy. The Committee of Appeal shall regulate its own procedure subject to the requirements of due process and natural justice and its findings shall be final and conclusive.

Article 17 The Council shall have power to extend the time within which notice of appeal may be given.

8.11 Termination of Membership

Article 18 Membership of the Academy shall terminate:

- (1) by death;
- (2) by resignation of a member delivered in writing to the Secretary giving seven days notice;
- (3) if a member becomes bankrupt or insolvent or compounds with his creditors or if a company or corporation enters into liquidation either voluntary or compulsory or if a receiver is appointed over its assets;
- (4) if a member becomes of unsound mind;
- (5) if a member is convicted of an indictable offence (other than an offence under the Road Traffic Acts);
- (6) if a member is found guilty of improper conduct pursuant to Article 16;
- (7) for non-payment of annual subscription in two succeeding years and following the sending of a registered letter to the member concerned by the Honorary Treasurer stating that membership of the Academy shall terminate unless such payment is received within 21 days from date of postage.

Article 19 Membership of the Academy is not transferable.

Section 9 GENERAL MEETINGS OF THE ACADEMY

9.1 Annual General Meeting

Article 20

- (1) The Academy shall in each year hold a general meeting as its Annual General Meeting in addition to any other meeting in that year, and shall specify the meeting as such in the notices calling it; and not more than 15 months shall elapse between the date of one Annual General Meeting and that of the next.
- (2) So long as the Academy holds its first Annual General Meeting within 18 months of its incorporation, it need not hold it in the year of its incorporation or in the year

following. Subject to the last preceding Article, the Annual General Meeting shall be held at such time and place as the Council shall appoint.

- (3) A copy of the Annual Report and the Statement of Accounts to the end of the financial year shall be posted to each member at least 21 days in advance of the Annual General Meeting.

Article 21 All general meetings of the Academy shall be held in the State.

9.2 Extraordinary General Meetings

Article 22 All general meetings other than Annual General Meetings shall be called extraordinary general meetings.

Article 23 The Council may whenever it think fit, convene an extraordinary general meeting, and extraordinary general meetings shall also be convened on such requisition, or in default may be convened by such requisitionists, as is provided by section 132 of the Companies Act, 1963. If at any time there are not sufficient members of Council capable of acting to form a quorum, any member of Council or any two members of the Academy may convene an extraordinary general meeting in the same manner as nearly as possible as that in which meetings may be convened by the Council.

9.3 Notice of General Meetings

Article 24 Subject to sections 133 and 141 of the Companies Act, 1963, an annual general meeting and a meeting called for the passing of a special resolution shall be called by 21 days' notice in writing at the least and a meeting of the Academy (other than an annual general meeting or a meeting for the passing of a special resolution) shall be called by fourteen days' notice in writing at the least. The notice shall specify the day, the place and the hour of the meeting and, in the case of special business, the general nature of that business and shall be given in manner authorized by these Articles to such persons as are under these Articles entitled to receive such notices from the Academy.

Article 25 The accidental omission to give notice of a meeting to, or the non-receipt of notice of a meeting by, any person entitled to receive notice shall not invalidate the proceedings at the meeting.

Proceedings at General Meetings

9.4 Chairman of General Meetings

Article 26 The President, shall preside as chairman at every general meeting of the Academy, but, where the President is not present and willing to act, the members of Council present shall elect one of their number to be chairman of the meeting; but if no member of Council is willing to act as chairman or if no member of Council is present, the Members present shall choose one of their number to be chairman of the meeting. The conduct of meetings shall be the responsibility of the chairman whose ruling is final except as qualified by these Articles.

9.5 Special Business

Article 27. All business shall be deemed special that is transacted at an extraordinary general meeting, and also that is transacted at an annual general meeting with the exception of the consideration of the accounts, balance sheets and the reports of the Council and Auditors, the election of members of Council in the place of those retiring, the re-appointment of the retiring Auditors and the fixing of the remuneration of the Auditors.

9.6 Quorum

Article 28 No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceeds to business save as hereinafter otherwise provided; fifteen members present in person shall be a quorum.

Article 29 If within half an hour from the time appointed for the meeting a quorum is not present, the meeting, if convened upon the requisition of members, shall be dissolved; in any other case it shall stand adjourned to the same day in the next week, at the same time and place or to such other day and at such other time and place as the Council may determine, and if at the adjourned meeting a quorum is not present within half an hour from the time appointed for the meeting, the member or members present shall be a quorum.

9.7 Right to Vote

Article 36 Every member who is entitled to attend and vote at general meetings shall have one vote.

9.8 Poll

Article 30 At any general meeting a resolution put to the vote of the meeting shall be decided on a show of hands unless a poll is (before or on the declaration of the result of the show of hands) demanded:-

- (1) by the chairman of the meeting; or
- (2) by at least three members present in person at the meeting.
- (3) by any member or members present in person and representing not less than one-tenth of the total voting rights of all the members having the right to vote at the meeting. Unless a poll is so demanded a declaration by the chairman that a resolution has, on a show of hands, been carried or carried unanimously or by a particular majority or both, and an entry to that effect in the book containing the minutes of proceedings of the Academy shall be conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against such resolution. The demand for a poll may be withdrawn.

Article 31 Unless a poll is demanded as aforesaid, a declaration by the chairman of the meeting that a resolution has, on a show of hands, been carried or carried unanimously or by a particular majority or lost, and an entry to that effect in the book containing the minutes of the proceedings of the Academy shall be conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against such resolution.

- Article 32** A poll demanded on the election of a chairman of a meeting or on any question of adjournment shall be taken forthwith. A poll demanded on any other question shall be taken either immediately or at such subsequent time (not being more than thirty days from the date of the meeting) and place as the chairman of the meeting may direct. The demand for a poll shall not prevent the continuance of the meeting for the transaction of any business other than the question on which the poll has been demanded.
- Article 33** Except as provided in Article 32, if a poll is duly demanded it shall be taken in such manner as the chairman of the meeting directs, and the result of the poll shall be deemed to be the resolution of the meeting at which the poll was demanded.
- Article 34** Where there is an equality of votes whether on a show of hands or on a poll, the chairman of the meeting at which the show of hands takes place or at which the poll is demanded, shall be entitled to a second or casting vote.

9.9 Resolutions in Writing

- Article 35** Subject to provisions of the Acts, a resolution in writing signed by all the members for the time being entitled to attend and vote on such resolution at a general meeting shall be as valid and effective for all purposes as if the resolution had been passed at a general meeting of the Academy duly convened and held and, if described as a special resolution, shall be deemed to be a special resolution within the meaning of the Acts, and such resolution may consist of one document or two or more documents to the same effect each signed by one or more members.

Section 10 THE COUNCIL OF THE ACADEMY

10.1 General Powers

- Regulation 10.1.1** The Academy shall be governed by a Council which shall be elected by the members of the Academy in accordance with Regulation 10.3.

The powers of the Academy as provided in Article 4 of the Memorandum of Association are vested in and managed by the Council of the Academy.

10.2 Membership of the Council

- Article 38** The number of members of the Council shall be not less than ten and not more than twenty, provided always that the following persons shall be members:
- (a) The President of the Academy;
 - (b) The President Elect of the Academy;
 - (c) The immediate two past presidents of the Academy;
 - (d) The Honorary Treasurer of the Academy
 - (e) The Secretary (if a member of the Academy).
- Article 39** The members of the Council shall be members of the Academy.

- Article 40** The members of the Council shall retire by rotation. A member of Council may serve for three consecutive years without standing for re-election. At the Council meeting as held in the fourth year following the adoption of these Articles, one third of the members of the Council shall retire from office, and at the equivalent Council meeting in every subsequent year one third of the members of Council for the time being, or, if their number is not three or a multiple of three, then the number nearest one-third, shall retire from office. The members of Council to retire in every year, as outlined above, shall be those who have been longest in office since the last election, but as between persons who became members of Council on the same day, those to retire shall (unless they otherwise agree amongst themselves) be determined by lot. A retiring member of Council shall be eligible for re-election, however provided that no member of the Council may serve for more than six consecutive years unless he is serving as President, one of the two immediate past presidents of the Academy, the President Elect, the Honorary Treasurer or the Secretary (if a member of the Academy).
- Article 41** The Academy may from time to time by ordinary resolution increase or reduce the number of members of the Council.
- Article 42** The Council shall have power at any time and from time to time, to appoint any person to be a member of the Council, either to fill a casual vacancy or as an addition to the existing members, but so that the total number of members of the Council shall not at any time exceed the number fixed in accordance with these Articles.

10.3 Election to The Council

The Academy established a new Council following incorporation and the adoption of the Articles of Association. The members of the new Council are the eight subscribers to the Memorandum of Association and ten members of the former Council who wished to become 'Directors' of the incorporated Academy. The first meeting of the new Council took place on 30 August 2007. Members of the new Council shall retire by rotation as provided by Article 40 above. Therefore the first retirements of one third of the members of the Council will be due to take place at the Annual General Meeting of the Academy in 2010. The newly elected members of the Council shall take-up office at that annual general meeting.

- Procedure 10.3** From 2010 onwards, elections to fill vacancies on the Council shall take place each year and shall normally take place in the January or February of the year.
- Regulation 10.3.1** Nominations for election to Council shall be supported by two members of the Academy and shall be in the form and according to the procedures prescribed by the Council from time to time.
- Regulation 10.3.2** Election shall be by secret postal ballot of all the members of the Academy in accordance with the Rules of Procedure of the Academy.
- Regulation 10.3.3** The Council shall appoint two or more scrutineers who may include an officer or officers of the Academy but in no case a candidate in the election.
- Regulation 10.3.4** The scrutineers shall certify and report the result of the ballot for Council to the Annual General Meeting.

Regulation 10.3.5 If in the event of there being fewer candidates than the vacancies declared by Council, the nominated candidates shall be deemed to be elected and the new Council may fill the remaining vacancies by co-option. In such a case an election will not be held.

10.4 Statutory Removal and Replacement of a Member of Council/Director

Article 43 The Academy may, by ordinary resolution of which extended notice has been given in accordance with section 142 of the Companies Act, 1963 if required by that section, remove any Member of Council before the expiration of his period of office notwithstanding anything in these Articles or in any agreement between the Academy and such Member of Council.

Article 44 The Academy may by ordinary resolution, appoint another person who is a member of the Academy in place of a Member of Council removed from office under the last preceding Article and, without prejudice to the powers of the Council to appoint any person to be a Member of Council, may appoint any person to be a Member of Council either to fill a casual vacancy or as an additional Member of Council.

10.5 Alternate Members of Council

Article 45 A Member of Council may not appoint any person to be an alternate or substitute Member of Council.

10.6 Disqualification of Members of Council/Directors

Article 46 The office of Member of Council shall be vacated if the member:-

- (1) is adjudged bankrupt or makes any arrangement or composition with his creditors generally; or
- (2) becomes prohibited from being on Council by reason of any order made under Part VII of the Companies Act, 1990; or
- (3) resigns his office by notice in writing to the Academy; or
- (4) is convicted of an indictable offence unless the Council otherwise determines; or
- (5) if, without leave he is absent (otherwise than on other business of the Academy) for three consecutive meetings of the Council and the Council passes a resolution that by reason of such absence he has vacated office; or
- (6) is removed from office of Director pursuant to section 182 of the Companies Act, 1963;
- (7) is required in writing by all his co-Directors to resign; or
- (8) ceases to be a member of the Academy under Article 18 above.

Meetings of the Council

10.7 Notice of Council Meetings

- Article 47 The President may, and the Secretary on the requisition of three members of Council shall, at any time summon a meeting of the Council.
- Article 48 The Council shall hold a minimum of four meetings per annum.
- Article 49 A Special General Meeting of the Council may be called on the written requisition of nine or more members of the Council provided that the requisition to call such meeting states the motion or motions to be moved.

10.8 Regulation of Council Meetings

- Article 50 The Council may meet together for the dispatch of business, adjourn and otherwise regulate its meetings as it thinks fit.
- Regulation 10.8.1 The Council may make Regulations by way of standing orders for the conduct of meetings of the Academy and for regulating the affairs of the Academy which standing orders shall not be contrary to these Articles.
- Article 51 The President shall preside as chairman at every meeting of Council, but if the President is not present and willing to act, the President Elect shall preside as chairman of the meeting. If the President Elect is not present and willing to act, the immediate past president of the Academy shall preside as chairman of the meeting. If the immediate past president of the Academy is not present and willing to act, the members of Council present may choose one of their number to be chairman of that meeting.
- Article 52 The quorum necessary for the transaction of the business of the Council may be fixed by the members of the Council and unless so fixed shall be five.

10.9 Voting at Council Meetings

- Article 53 Questions arising at any meeting shall be decided by a majority of votes. Where there is an equality of votes the chairman of the meeting shall have a second or casting vote.

10.10 Telephone Meetings

Article 54

- (1) For the purpose of these Articles, the contemporaneous linking together by telephone or other means of audio communication of a number of members of Council not less than the quorum shall be deemed to constitute a meeting of the Council and all the provisions in these Articles as to meetings of the Council shall apply to such meetings.
- (2) Each of the members of Council taking part in the meeting must be able to hear each of the other members taking part.

- (3) At the commencement of the meeting each member of Council must acknowledge his presence and that he accepts that the conversation shall be deemed to be a meeting of the Council.
- (4) A member of Council may not cease to take part in the meeting by disconnecting his telephone or other means of communication unless he has previously obtained the express consent of the chairman of the meeting, and a member shall be conclusively presumed to have been present and to have formed part of the quorum at all times during the meeting unless he has previously obtained the express consent of the chairman of the meeting to leave the meeting as aforesaid.
- (5) A minute of the proceedings at such meeting by telephone or other means of communication shall be sufficient evidence of such proceedings and of the observance of all necessary formalities n certified as a correct minute by the chairman of the meeting.

10.11 Minutes

Article 61 The Council shall cause minutes to be made in books provided for the purpose:-

- (1) of all appointments of officers made by the Council;
- (2) of the names of the members of Council present at each meeting of the Council; and
- (3) of all resolutions and proceedings at all meetings of the Academy and of the Council.

Powers of the Council

10.12 General Powers

Article 55 The business of the Academy shall be managed by the Council or Directors, who may exercise all such powers of the Academy as are not, by the Acts or by these Articles, required to be exercised by the Academy in general meeting. No direction given by the Academy in general meeting shall invalidate any prior act of the Council which would have been valid if that direction had not been given.

10.13 Powers to Borrow and Grant Security

Article 56 The Council may exercise all powers of the Academy to borrow money and to mortgage or charge its undertaking and property or any part thereof to Issue debentures, debenture stock and other securities whether outright or as security any debt, liability or obligation of the Academy or of any third party.

10.14 Cheques etc.

Article 57 All cheques, promissory notes, drafts, bills of exchange and other negotiable instruments and all receipts for monies paid to the Academy shall be signed, drawn, accepted, endorsed or otherwise executed, as the case may be, by such

person or persons and in such manner as the Council shall from time to time by resolution determine.

10.15 Expenses

Article 58 Members of the Council may be paid all travelling, hotel and other expenses properly incurred by them in connection with the business of the Academy.

10.16 Conflict of Interest

Article 59 A member of Council who is in any way, whether directly or indirectly, interested in a contract or proposed contract with the Academy shall declare the nature of his interest in accordance with section 194 of the Companies Act, 1963.

Article 60 A member of Council may not vote in respect of any contract, appointment or arrangement (other than directly related to his membership of the Academy) in which he is interested, but may be counted in the quorum present at the meeting.

Section 11

COMMITTEES OF COUNCIL

11.1 The Executive Committee

Article 62 There shall be an Executive Committee of the Council of the Academy and the Council may delegate to the Executive Committee such powers and duties as are not specifically reserved to itself by resolution of the Council.

Article 63 The Executive Committee shall consist of:

- (a) The President;
- (b) The two immediate past presidents of the Academy;
- (c) The President Elect;
- (d) The Honorary Treasurer
- (e) The Secretary (if a member of the Academy);
- (f) Three members of the Academy elected by the Council.

Article 64 In the event of a vacancy arising on the Executive Committee under Article 63(f) above, the Council may co-opt one of its members to fill the vacancy and such co-option shall be notified to the Council at its next meeting.

Article 65 The Executive Committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Council. Subject to any such regulations, the proceedings of the Executive Committee shall be governed by the provisions of these Articles regulating the proceedings of the Council so far as they are capable of applying.

Article 66 The President shall preside as chairman at every meeting of the Executive Committee. If the President is not present and willing to act, the President Elect shall preside as chairman of the meeting. If the President Elect is not present and willing to act, the immediate Past President of the Academy shall preside as chairman of the meeting. If the immediate past president of the Academy is not present and willing to act, the members of the Executive Committee present may choose one of their number to be chairman of that meeting.

Article 67 The Executive Committee may meet and adjourn as it thinks proper. Questions arising at any meeting shall be determined by a majority of votes of the members present and, where there is an equality of votes, the chairman of the meeting shall have a second or casting vote.

Regulation 11.1.1 A member may serve on the Executive Committee for not more than six consecutive years.

11.2 Other Committees

Article 69 The Council may delegate any of their powers to other committees as it thinks fit (the "Committee"); any Committee may consist of one or more members of Council and the Council shall be entitled to appoint such other person or persons as they consider expedient to a Committee, membership of the Academy not being a necessary prerequisite for such appointment, and to fix the remuneration of any such person; and any Committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Council. Subject to any such regulations, the proceedings of a Committee with two or more members shall be governed by the provisions of these Articles regulating the proceedings of the Council so far as they are capable of applying. The Council shall appoint a chairman of any such other Committee. Questions arising at any meeting of a Committee shall be determined by a majority of votes of the members present and, where there is an equality of votes, the chairman shall have a second or casting vote.

Article 70. The President, the President Elect and the Secretary shall have the right to attend and speak at any meeting of any Committee.

11.3 Membership Committee

The Membership Committee shall have a chairman and three other members, all as elected by Council. In addition, the Secretary of the Academy shall, ex-officio, be a member of the Membership Committee. The terms of office of the individual elected members of the Committee shall not normally exceed six years.

Regulation 11.3.1 All nominations for membership under Articles 3(c), 3(d) and 3(e) will be referred to the Membership Committee which, in the light of the relevant provisions of the Articles of Association and of other written directions and decisions of Council (including Section 8.6 of this document), shall consider the nominations and shall advise Council on which, if any, of the nominees, ranked in order of preference, should be proffered membership to fill the available vacancies. Deliberations of the Committee with respect to scrutiny and selection shall be confidential and no minutes or notes shall be kept.

Regulation 11.3.2 The Membership Committee may also make recommendations to Council from time to time in respect of appropriate number of places to be filled, and in respect of appropriate rules and procedures for nomination, scrutiny and selection of new members.

11.4 Committees' Resolutions in Writing

Article 71

- (1) A resolution in writing signed by each member of the Council shall be as valid as if it had been passed at a meeting of the Council duly convened and held.
- (2) A resolution in writing signed by each member of a Committee shall be as valid as if it had been passed at its meeting of that Committee duly convened and held.
- (3) Such a resolution may consist of one document or two or more documents to the same effect each signed by one or more of the signatories.
- (4) Such documents when duly signed may (unless the Council shall otherwise determine either generally or in any specific case) be delivered or transmitted by facsimile transmission.

Section 12

OFFICERS OF THE COUNCIL

12.1 Officers of Council:

The officers of Council shall be the President, the two immediate Past Presidents, the President Elect, the Secretary and the Honorary Treasurer.

12.2 The President

Article 72 The Council shall elect a President of the Academy subject to the approval of the members of the Academy. The President shall serve as Chairman of the Council. The President shall normally hold office for one year and until the next ensuing Annual General Meeting following his appointment.

Regulation 12.2.1 In the event of the position of President falling vacant the Council shall appoint the President Elect or a past president or a current member of Council as President until the next ensuing Annual General Meeting.

12.3 The President Elect

Article 73 The Council shall elect a President Elect of the Academy subject to the approval of the members of the Academy. The President Elect shall normally be a past president of The Institution of Engineers of Ireland. The President Elect shall hold office for one year and until the next ensuing Annual General Meeting following his appointment. The President Elect shall normally be the succeeding President. If no past president of The Institution of Engineers of Ireland is available to serve as President Elect of the Academy, the Council shall be empowered to elect one of the members of the Council as President Elect of the Academy subject to the approval of the members of the Academy at the Annual General Meeting.

12.4 The Honorary Treasurer

Article 74 The Council may from time to time elect an Honorary Treasurer from amongst

their own number on such terms and for such period as the Council thinks fit but any Honorary Treasurer may be removed from office by the Council before the expiry of such period.

Regulation 12.4.1 The Honorary Treasurer shall exercise a monitoring and advisory role on the finances and assets of the Academy on behalf of the membership.

12.5 The Secretary

Article 75 The Secretary shall be appointed by the Council for such term, and upon such conditions as they may think fit, and any Secretary so appointed may be removed by them.

Regulation 12.5.1 The Secretary shall be responsible for the minutes of the Council and the Executive Committee, for the Roll of Members and for the preparation of the Annual Report of the Academy.

Regulation 12.5.2 If a member of the Academy undertakes the duties of the Secretary in a voluntary capacity that person shall be known as the Honorary Secretary.

Regulation 12.5.3 The Secretary shall have specific responsibility in his role as Registrar of the Academy for the compilation, retention and updating of all documentation and files relating to the role and activities of the Academy.

Regulation 12.5.4 The Secretary shall have specific responsibility in his role as Recording Secretary of the Company limited by guarantee for all documentation and files relating to the proceedings of the Company including Minutes as specified in Article 61 of the Articles of Association of the Company and Section 10.11 of these General Regulations and Rules of Procedure.

Article 76 A provision of the Acts or these Articles requiring or authorising a thing to be done by or to a member of Council and the Secretary shall not be satisfied by its being done by or to the same person acting both as a member of Council and as, or in place of, the Secretary.

12.6 Agents and Employees

Regulation 12.6.1 The Council may appoint other employees and/or engage an agency or agencies for the administration of its affairs and the affairs of the Academy subject to such remuneration and/or terms of contract as it shall determine.

Section 13 REPRESENTING THE ACADEMY

Regulation 13.1.1 The Council or the Executive Committee acting on its behalf may appoint an officer, a member of Council or a member of the Academy to represent the Academy on other bodies.

Regulation 13.1.2 Representatives of the Academy on other bodies shall report to the Council or the Executive Committee as appropriate.

Regulation 13.1.3 Unless the Council or the Executive Committee otherwise prescribes, each such appointment shall be reviewed annually with a view to continuation or termination.

- Regulation 13.1.4 All committees and individual members acting as representatives of the Academy shall conduct their business for the Academy in accordance with the procedures established by the Council from time to time for the conduct of such committees or representatives.
- Regulation 13.1.5 No committee or individual member of the Academy shall commit the Academy to a course of action or incur a financial liability on behalf of the Academy without prior sanction of the President or of the Secretary.
- Regulation 13.1.6 No committee or individual member of the Academy may issue a statement on behalf of the Academy except with the delegated authority of the Council or Executive Committee or of the President or the Secretary.
- Regulation 13.1.7 In the appointment of committees or working parties to undertake specialised tasks, the Council may appoint persons with specialised experience who are not members of the Academy to the committees or working parties concerned.

Section 14

ACCOUNTS

- Article 80 The Council shall cause proper books of accounts to be kept relating to:-
- (1) all sums of money received and expended by the Academy and the matters in respect of which the receipt and expenditure takes place;
 - (2) all sales and purchases of goods by the Academy; and
 - (3) the assets and liabilities of the Academy.
- Proper books shall not be deemed to be kept if they are not such books of account as are necessary to give a true and fair view of the state of the Academy's affairs and to explain its transactions.
- Article 81 The books of account shall, subject to section 202 of the Companies Act, 1990, be kept at such place, as the Council think fit, and shall at all reasonable times be open to the inspection of the Council.
- Article 82 The Council shall from time to time determine whether and to what extent and at what times and places and under what conditions or regulations the accounts and books of the Academy or any of them shall be open to the inspection of members who are not members of Council, and no member who is not a member of Council shall have any right of inspecting any account or book or document of the Academy except as conferred by law or authorised by the Council or by the Academy in general meeting.
- Article 83 The Council shall from time to time cause to be prepared and to be laid before the annual general meeting of the Academy such profit and loss accounts, balance sheets, group accounts and reports as are required by the Statutes to be prepared and laid before the annual general meeting of the Academy.
- Article 84 A copy of every balance sheet (including every document required by law to be annexed thereto) which is to be laid before the Annual General Meeting of the Academy together with a copy of the Council report and Auditors' report shall, not less than 21 days before the date of the annual general meeting, be sent to every person entitled under the provisions of the Statutes to receive them.

Regulation 14.1.1 The Financial Year of the Academy shall be 1st January to 31st December.

Section 15 **AUDIT**

Article 85 Auditors shall be appointed and their rights and duties regulated in accordance with sections 160 to 163 of the Companies Act, 1963 as amended and extended by sections 182 to 197 of the Companies Act, 1990.

Regulation 15.1.1 The Auditors for the ensuing year shall be appointed by election at the Annual General Meeting (By-Law 19.6).

Section 16 **ANNUAL REPORT**

Regulation 16.1.1 The Council shall prepare an Annual Report for the year which shall be circulated to all members and laid before the Annual General Meeting.

Section 17 **TRANSACTIONS**

Regulation 17.1.1 The Council may publish Transactions of the Academy or other such documents as it thinks fit in pursuit of the main object of the Academy.

Section 18 **AWARDS**

Regulation 18.1.1 The Council may make such awards of the Academy on such conditions as it may decide in pursuit of the main object of the Academy. The Secretary shall keep a list of such awards and details of the relevant conditions.

Section 19 **HONORARY TITLES**

Article 77 The Academy may confer Honorary Fellowship on persons of distinction who may or may not be members of the engineering profession and whose association with the Academy is considered appropriate to the aims, objects and status of the Academy.

Article 78 The members of the Academy in Annual General Meeting shall have sole authority to confer such an honorary title on the recommendation of the Council.

Section 20 **SEAL**

Article 79 The Seal shall be used only by the authority of the Council or a committee of Council authorised by the Council in that behalf, and every instrument to which the Seal shall be affixed shall be signed by a member of Council and shall be countersigned by the Secretary or by a second member of Council or by some other person appointed by the Council for the purpose.

Procedure 20.1 The Seal shall be kept by the Secretary. Notwithstanding the wider use described in Article 79 above the normal procedure is that every document to which the Seal is affixed shall be signed by the President and countersigned by the Secretary.

Section 21 **RULES OF PROCEDURE**

- Regulation 21.1.1 The Council may make Rules of Procedure on matters referred to in these Articles.
- Regulation 21.1.2 Rules of Procedure shall be made, amended or rescinded by a meeting of the Council subject to not less than two-thirds of the members of the Council being present thereat.
- Regulation 21.1.3 Information regarding Rules of Procedure made, amended or rescinded shall be communicated to members by posting a notice to each member of the details or a summary thereof together with advice that a copy of such Regulations may be obtained on request to the Secretary.

Section 22 **RIGHTS OF MEMBERSHIP**

- Regulation 22.1.1 A member of the Academy may attend any General Meeting of the Academy and may speak to or vote upon any motion which may be before such meeting.
- Regulation 22.1.2 A member of the Academy may seek the advice of the Academy on any matter coming within the object of the Academy.
- Regulation 22.1.3 A member of the Academy as prescribed in these Articles may vote in an election or ballot or poll conducted by the Academy.
- Regulation 22.1.4 A member of the Academy may nominate or be nominated for election to membership of the Council.

Section 23 **NOTICES**

- Article 86 A notice may be given by the Academy to any member either personally or by sending it by post to him to his registered address. Where a notice is sent by post, service of the notice shall be deemed to be effected by properly addressing, prepaying and posting a letter containing the notice, and to have effect in the case of the notice of a meeting at the expiration of 72 hours after the letter containing the same is posted, and in any other case at the time at which the letter would be delivered in the ordinary course of post.
- Article 87 Notice of every general meeting shall be given in any manner hereinbefore authorised to:-
- (1) every member entitled to attend and vote thereat;
 - (2) every Director; and
 - (3) the Auditors.

Section 24

INDEMNITY

Article 88 Subject to section 200 of the Companies Act, 1963 every member of Council, Secretary and other officer for the time being of the Academy shall be indemnified out of the assets of the Academy against any liability incurred by him in defending any proceedings, whether civil or criminal, in relation to his acts while acting in such office, in which judgment is given in his favour or in which he is acquitted, or in connection with any application under section 391 of the Companies Act, 1963 in which relief is granted to him by the court.

Issue 1 - as approved by The Council on 11 December 2007.

Issue 2 – for consideration of The Council on 2 December 2008

Issue 3 – amendments to Articles 52 & 72 – May 2009

Issue 4 – revision of Membership total to 150 (Section 8.1), new Registered Office address (Section 3) and amendment of Procedure 8.6.2 to facilitate a single nominator - June 2010

Issue 5 – minor amendments of Procedures 8.6.6, 8.6.8 and 8.6.9 – approved by Council 16 Dec. 2010

Issue 6 – revision of Membership criteria involving amendment of Articles 3 (e) and 6 (b) and minor changes to Procedures 8.3.2 and 8.6.2. – May 2012

Issue 7 – revision of Membership criteria involving amendments of Procedures 8.9 (Article 8) and 8.11 (Article 18 (7))

Issue 8 – inclusion of two new regulations 12.5.3 & 12.3.4, in relation to responsibility of the secretary.

Issue 9 – revision of Membership criteria involving amendment of 8.2 (Article 3d)

Appendix D

Leadership election process - President

Election of President

The Council shall elect a President of the Academy subject to the approval of the members of the Academy. The President shall serve as Chairman of the Council. The President shall normally hold office for one year and until the next ensuing Annual General Meeting following his or her appointment.

The Council shall elect a President Elect of the Academy subject to the approval of the members of the Academy. The President Elect shall normally be a past president of The Institution of Engineers of Ireland. The President Elect shall hold office for one year and until the next ensuing Annual General Meeting following his or her appointment. The President Elect shall normally be the succeeding President. If no past president of The Institution of Engineers of Ireland is available to serve as President Elect of the Academy, the Council shall be empowered to elect one of the members of the Council as President Elect of the Academy subject to the approval of the members of the Academy at the Annual General Meeting.

Appendix E

Criteria for electing new fellows

Criteria for election of new fellows

The principal criteria as stated in the regulations are:

Chartered Engineers of The Institution of Engineers of Ireland or Chartered Engineers resident in Ireland who by virtue of distinction and achievement are may be elected members of the Academy.

Engineers whose contribution to engineering is recognised as meriting election.

In addition the regulations provide for:

The members of the Academy shall normally be Chartered Engineers and Fellows of The Institution of Engineers of Ireland or fellows of other institutions with which The Institution of Engineers of Ireland has bilateral agreements for the mutual recognition of the title of Chartered Engineer.

Additionally, up to 20% of the Fellows of the Academy may be elected under such conditions as the Council may deem appropriate from time to time and where the individuals concerned have reached an exceptional level of competence and distinction in areas which are related to the advancement of engineering science.

Nomination of Members under Articles

Procedure Not less than three months before nominations are to reach the Membership

8.6.1 Committee the Secretary on behalf of Council shall invite Members of the Academy to nominate potential new members, stipulating the closing date for receipt of nominations for the year in question. (Note: Members may submit nomination papers to the Secretary at any time during the year; however custom and practice has led the Academy to adopt an annual process for the selection/election of new members as detailed below.)

Procedure Nominations for membership of the Academy shall be made in writing by any

8.6.2 one or more members, other than by the President, the President Elect or members of the Membership Committee. Each nomination shall be accompanied by a summary CV of the nominee prepared or subscribed to and signed by the nominator or nominators if more than one. The nominee shall not be informed of the nomination, nor consulted in preparing the summary CV. The completed nomination shall be submitted to the Secretary of the Academy for forwarding directly to the Membership Committee.

Procedure 8.6.3 The Secretary shall forward all new nominations, and copies of any residual valid nominations from previous years, to the members of the Membership Committee, to be with them not later than two months before the committee's recommendations for membership must be issued (which is normally five days before the Council meeting to consider the committee's recommendations), together with notification to the committee of said date. (Note: The President and the President Elect will not normally attend meetings of the membership committee concerned with the examination and recommending of new members.)

Procedure 8.6.4 Within two months of receiving the set of nominations, the Membership Committee shall select from the nominations a ranked list of nominees suitable to fill the available vacancies, which list shall be submitted to Council by the Committee chairman through the Secretary. The number of names on the list may be less but not greater than the number of vacancies notified to the committee by Council. The Committee shall also, where practicable, select one additional nomination suitable for election; this nomination shall be kept in reserve in case and until Council should request it.

Any invalid nomination shall be returned to the nominators by the Secretary. If any nomination is considered by the Membership Committee to be unsuitable for membership, the nominators shall be so informed by the Secretary.

Procedure 8.6.5 Residual nominations (i.e. those not elected in the current year and not deemed by the Membership Committee to be invalid nominations or unsuitable candidates) shall remain valid for three years from the date of submission, subject to the Secretary seeking and receiving annually from each nominator confirmation of their wish that this be done.

Procedure 8.6.6 if any, Council will decide on a confidential, provisional basis which nominees, from the list may be offered membership. This decision will be contingent on the Secretary approaching the nominee to seek assurances that the nominee if proffered membership will accept and will undertake to sustain and contribute to the work of the Academy, and the Secretary receiving such assurances in writing.

Procedure 8.6.7 assurances, Following confirmation of receipt by the Secretary of the sought Council will finalise its decision on the nominees who are to be offered membership.

Procedure 8.6.8 its Council shall inform the Council of the Institution (Engineers Ireland) of its decision and announce the names of the new members.

Procedure The Secretary shall write and confirm membership to the selected nominees.

8.6.9 The letter shall seek also the return of the pro-forma information required for registration, including a photograph and short CV by the nominee.

Appendix F

Most recent Annual report



THE IRISH ACADEMY OF
ENGINEERING
ENGINEERING & TECHNOLOGY

22 Clyde Road, Ballsbridge, Dublin D04 R3N2
Telephone: +353 1 665 1337
Email: academy@iae.ie
www.iae.ie



TONY SMYTH
PRESIDENT 2018/2019

TWENTIETH ANNUAL REPORT

APRIL 2018 – MARCH 2019

INCLUDING

THE OFFICIAL LIST OF FELLOWS

AT

31 MARCH 2019

William Grimson
Hon. Secretary

CONTENTS

INTRODUCTION

REVIEW OF THE YEAR

Mr. Tony Smyth
President/Chairman

CHIEF EXECUTIVE'S REPORT

Dr. Gabriel Dennison

STANDING COMMITTEES and REGIONAL BRANCHES

Committee Chairs

GOVERNANCE AND MEMBERSHIP OF THE ACADEMY

Mr. William Grimson
Honorary Secretary

OBITUARIES

Mr. Sean Mulcahy
Prof. Tom Brazil
Mr. Dan McInerney
Prof. Noel Mulcahy

INCOME AND EXPENDITURE ACCOUNT

Mr. Patrick Lynch
Honorary Treasurer

INTRODUCTION

This Annual Report reviews the activities of the Irish Academy of Engineering in its Twentieth year as the Academy and its eleventh year as a Company Limited by Guarantee and one which is recognised for Charitable Status. The report covers the year from April 1st, 2018 to March 31st, 2019. The financial year remains unchanged as the calendar year ending December 31st, 2018.

President's Review of 2018 – 2019

Introduction

The aim of the Academy is to be an independent and experienced voice on engineering issues that affect the economic growth and social development on the island of Ireland. To achieve this goal, we must continue to develop our profile through our Reports and Briefings, enhance our connectivity through building networks with like-minded organisations, and take the opportunities presented to build confidence in our abilities with Government Departments and Public Bodies.

Opportunities

During the past year the economies, North and South, have continued to grow and unemployment has continued to fall - full employment will be reached during 2019 in the South it is predicted. The growth of the economy provides an opportunity to address the infrastructure and other challenges that proved difficult if not impossible during the recession. The Academy has previously welcomed the publication in the South of the Spatial Strategy and coupled with it the National Development Plan (NDP) and 10-year Capital Expenditure programme designed to begin addressing the infrastructure deficits.

Challenges

There are however significant challenges to this continued progress. At the time of writing the Brexit issue has not been resolved and the work on the future relationship between the EU and the UK has not seriously commenced. This has the potential to have the most severe impacts on both the societies and economies of the island, north and south.

In the meantime, the EU needs to address other challenges such as the causes of the rise of populist politics across in several member countries; the need to reform the EU central decision-making and to restore its ability to address the concerns of its citizens; and the increasing risk of unilaterally imposed trade tariffs, which poses a challenge to the freedom of trade to which we have become accustomed and upon which economic growth has become dependent.

It has wide ramifications also for the EU structures and decision-making for the future and there are many areas that the EU needs to focus its reforms to serve its citizens better and rebuild their confidence in its institutions, particularly with forthcoming European Parliament elections and the appointment of a new Commission.

Within Ireland there are challenges too. There is now a high level of public expectation,

following a number of years of post-recession growth, that the deficiencies in a range of public services and infrastructure will be addressed - and within a short timeframe.

There is public debate and concern too about the ability of the Public Sector to manage the delivery of the constituent programmes of the NDP and to do so within the expected timeframes and budgets. There is concern also about the capacity of the construction sector to deliver the infrastructure targets of the NDP.

There is a role I believe for the Academy in developing and facilitating a broader understanding of the strategic planning necessary for the proper delivery of infrastructure projects and programmes and in informing the public understanding of the underlying engineering complexity.

Progress Achieved During the Year

On Governance

It is important that the Academy is not seen as a solely Dublin-centric organisation and on taking up my role as President I was determined to hold as many Council meetings in the Regions as possible - both to support the valuable work of the regional committees and to take the opportunity to meet colleagues based there. I am pleased to report that there were two such meetings held over the past year.

First, we had a very successful Council meeting in the Northern Region in Belfast in October 2018 to coincide with the presentation of the Parsons Medal. The latter ceremony was held on board HMS Caroline – an historic warship that is part of the Royal Navy Museum berthed at the Titanic dock and powered once upon a time by Parsons turbines. We were honoured on the day to have the direct descendent of Sir Charles Parsons, the current Earl of Rosse, Sir Brendan Parsons, to make the award to its worthy recipient Sir John McCanny.

A second and equally successful Council meeting was held in Cork in January 2019. The meeting was held at the National Maritime College of Ireland (NMCI) in Ringaskiddy and this allowed a site visit to take place to view the extremely impressive facilities at the College and at the adjacent Centre for Marine and Renewable Energy Ireland (MaREI).

Both meetings were well attended by both colleagues from the respective Regions and by Council members in general.

I would like to extend my thanks to those who organised the events and to those who attended. It was a most useful opportunity to meet regionally based colleagues and hear their views and suggestions.

Concerns were raised during the year regarding the efficacy of the structured discussion and decision-making processes of Council/Executive. Council/Executive meetings on a monthly basis are proving challenging for members, particularly those who must travel some distance for the meetings.

Council has therefore decided to amend the Regulations to create what it is hoped will be a more flexible and streamlined arrangement. Essentially the Council and Executive are being merged and the incoming Council will decide an appropriate schedule of meetings for the coming year.

On the Membership Process

During the year we spent a considerable amount of time examining the process for bringing new Fellows into the Academy. This process was driven by a number of factors including the need to enhance the engagement of incoming members with the work of the Academy; to address the gender balance of the organisation and gaps in areas of our expertise. We are also keen to identify those 'persons of influence' who might, as Fellows, help strategically to build the Academy's profile in the public and political mind.

This reflects an approach used by our UK counterparts in the RAEng, i.e. of proactively seeking to address any perceived imbalances to strengthen and broaden the organisation.

The Council has therefore agreed on a significantly revised methodology for bringing in new members that will enhance the focus on the needs of the Academy and its development. It will, I believe, ensure stronger participation in the work of the various standing and general committees. As part of this process, and given that several members were due to step down, it was also agreed to re-structure the Membership Committee, increasing its number to 7 with a quorum of 5. The Regulations have been amended by Council and a paper is circulated at the AGM for members information.

On Funding

Adequate funding to permit the Academy to carry out its desired level of work remains a challenge and a priority. There are, as members know, a number of funding streams already contributing to the organisation's finances underway including subscriptions and contributions from corporate Patrons. I am pleased to report that this past year we embarked on the detailed exploration of an additional possibility.

Our existing Patrons continued to support us during the year and I would like to record here the grateful thanks of the Academy for that support. It is evident from our communications with selected Patrons that there is an ongoing increase in the internal regulatory and governance requirements of companies to justify charitable contributions. These demands are passed on to recipients like the Academy and thus there is increased pressure on us to enhance our efforts to articulate the societal benefits, including the

influence on decision-makers, of our outputs and reports, in ways that resonate with both existing Patrons and with potential new Patron companies.

During the year, at the initiative of the Chief Executive, we began to look at the potential for philanthropic funding as an additional source of income for the Academy. We are being assisted in this approach by a company (2into3) experienced in sourcing funding for not-for-profit organisations and have begun a process of examining of our message and helping to articulate the aims of the Academy in ways that may appeal to philanthropic donors. This work is helpful too in presenting to our current and potential new patron companies.

On International Relations

Before becoming President, I visited the Royal Academy in the company of the Chief Executive in January 2018 where we had a very productive meeting and discussions with the CEO, Dr. Hayaatun Sillem and her very helpful staff. We gained considerable insight into the RAE's operations and structure and this has proved very valuable over the past months in many different ways.

Just this week as we contemplate the AGM, I am visiting the German National Academy of Science and Engineering, *acatech*, where I hope to meet Dr Spaath, the President and other senior officers. I will be accompanied on my trip to Berlin by the incoming President Dr Jim Browne, by Prof Gerry Byrne (a member of *acatech*) and by Dr Gabriel Dennison, our Chief Executive. Our group is also scheduled to meet with Mr Michael Collins, the Irish Ambassador to Germany. I hope to be able to say more on this visit at the AGM.

Such interpersonal contacts are, in my opinion, vital to the international standing and reputation of the Academy as well as providing useful insights and information unobtainable elsewhere. I would hope we can do more in the future as funding constraints allow.

Thanks

In conclusion, I would like to express my thanks to the Council, Executive and the Officers of the Academy for their co-operation and support during my tenure.

I would like to acknowledge the commitment of the many members who give freely of their time to the work of the Academy and without which contribution to the Academy could not carry on.

My sincere thanks also to our Chief Executive Gabriel Dennison and to Fiona McCarron for their diligence and dedication to the Academy and for their support to me during the year.

And particularly I would like to acknowledge the tireless work of our Special Advisor Michael Hayden and for his support and advice over the year.

Finally, I would like to wish our incoming President Jim Browne every success during his tenure. I know he will make a most valuable contribution to advancing the aims of the Academy.

Tony Smyth
President IAE 2018-19

Chief Executive's Report

Background

Following the thorough review of the organisation's strategy undertaken in 2017/18 the past year has been one of seeking to put into action the measures agreed. It may be recalled that the three key objectives of the approved strategy were:

1. **Recognition** – by decision-makers, policymakers and the profession; based on the quality of the Academy's output;
2. **Sustainable Funding** – sourced from the public and private sectors and from the membership;
3. **Membership** – to include the best and most experienced in the profession from all backgrounds and with an appropriate age and gender balance.

Progress over the Year

1. Recognition

Action:

Seek meetings with Minister for Finance and An Taoiseach for Q1 2018 to promote the role of the Academy and its utility for Government.

Status:

No meetings achieved with Minister or Taoiseach over the period. However, several meetings have been held with both other senior politicians and public servants.

These included Minister Richard Bruton TD, (then) Minister for Education and Skills, Mr Timmy Dooley TD, Opposition spokesperson on energy and climate change, Mr Phil Hogan, EU Commissioner for Agriculture, Mr Robert Watt, Secretary-General of the Department of Public Expenditure and Reform (DPER); Mr Noel Lavery, Permanent Secretary, NI Department of Finance.

Contacts with Mr Watt in particular have led to a ongoing involvement with his department on issues relating to the management of major infrastructure projects.

Mr Watt has indicated that he would be supportive of a Cabinet resolution formally recognising the Academy as a trusted source of independent, evidence-based advice to Government.

It will be a key objective in 2019/2020 to achieve this minimum level of formal State recognition.

Action:

Refresh the organisation's Communications Strategy; ensure channels to the media are open for two way communication.

Status:

Strategy completed and substantially implemented; increased use made of social media, e.g. LinkedIn, Twitter; producing 3-4 newsletters annually for broad circulation (members, patrons, stakeholders).

It might be noted that after a successful meeting with the Royal Academy in early 2018 a similar event was arranged to facilitate a discussion between the IAE and *acatech*, the German national engineering academy. Meetings involving the President, incoming President, Prof. Gerry Byrne (Fellow and member of *acatech*) and the CE is planned to take place in Berlin in late April 2019.

The Chief Executive attended the Annual Meeting of Euro-CASE in Zurich in September which coincided with a day conference on Artificial Intelligence; a full report was circulated to Council after the event.

Action:

All committees to prepare a schedule of anticipated output for the period to 31 Dec 2018.

Status:

2018/19 has not been a particularly productive year for the Academy. Apart from the Brexit and Ports report issued in February 2018 and a second report on Gas Security in the summer little more has appeared.

Neither has there been any Academy mediated event over the period.

The Academy, with the kind cooperation of Dr. Ed Harty, organised a site visit in October to Dairymaster in Tralee.

This remains a critical action area.

Action:

The plans for a more high profile Parsons Medal event in 2018 progressed well. The campaign commenced in March with the preparation of a short dedicated promotional video. This was shot mainly in and around Birr Castle and featured past winners Prof. Tony Fagan and Prof. Ed Harty as well as Sir Brendan Parsons (Earl of Rosse) and the Chief Executive. The video was widely circulated.

Status:

The worthy winner was Sir John McCanny of QUB. The ceremony was held on board the World War One battleship HMS Caroline which is moored at the Titanic basin and is now part of the Royal Navy Museum. She also has 4 original, if now redundant, Parsons steam turbines. plus other activities.

The challenge for 2019/20 will be to reproduce the success of the 2018 event given the

difficulty of attracting contenders and the significant cost of the event to the Academy.

2. Funding

a. State

Action:

Seek State funding for the Academy.

Status:

Representations were made to the State seeking part-funding over the course of the year, either at fact o face meetings or via written submissions (e.g. Budget submission); this lead to a number of opportunities to discuss the matter with senior politicians and officials (see above).

Status: ongoing.

b. Private

Action:

Develop a strong argument to be used as a sales pitch to potential (and existing) corporate donors – whether to the CEO or other key executive or it may be to the company's Corporate Social Responsibility (CSR) committee.

Status:

Some interim work was done in this area before meeting CRH in the summer where we had been asked to make a pitch for continued funding. This was ultimately successful and many useful lessons were learned from the process of engagement.

After a competitive process in Q2/Q3 of 2018 a specialist philanthropy consultant was appointed (i) to assist the Academy in developing a suitably professional and appropriate "sales pitch", (ii) to help prepare a 7 year Business Plan and (iii) to identify suitable potential benefactors to whom the pitch and plan may be presented.

The Business Plan is currently in preparation under the guidance of a Steering Group comprising (outgoing) President Tony Smith, Tom Leahy, Michael Hayden and the Chief Executive. It will be completed in late May and will be presented as a draft to a workshop of members at that time for feedback.

This is a critical action area.

Action:

Identify a long list of companies to be approached - test the approach on an initial group 10-12 companies and amend if necessary.

Status:

A fundraising committee was established under the chairmanship of (incoming) President Prof. Jim Browne with a brief to focus on existing and potential commercial patrons. No great success to report as yet.

This is a critical action area.

Action:

Identify semi-State, State and other agencies with which we can work/have worked with and establish/re-establish contact.

Status:

Apart from our ongoing involvement with DPER there are no meaningful developments to report in this area.

3. Membership

Action:

Recall that it was recognised at the Strategy Meeting in October 2017 that there was a need to look again at the membership of the Academy with a view to ensuring that it is capable of capturing the very best potential candidates and an appropriate mix of backgrounds and gender.

At the Executive Meeting of 16th November 2017 it was decided to undertake a full and detailed review of the membership process to include *inter alia* nomination process, selection criteria, numbers appointed, the appropriate overall total of members, age profile and gender balance.

The possibility of widening the membership to include “technologists”, as in Australia and elsewhere, was also to be examined.

Status:

Many developments have occurred with regard to the membership process culminating in the unprecedented intake approved this year, the proposal to raise the upper ceiling to 200 members and the increased size of the Membership Committee from 5 to 7.

Further developments will continue to be made in the interests of maintaining the Academy’s very high standards and ensuring continued and indeed enhanced relevance.

4. Other Developments

In addition to the above activities it may be noted that a review of the governance arrangements of the Academy has been initiated.

Some changes have already been made – such as those relating to the Executive and Council and the Membership Committee. Others will follow in the coming year as this is very much a work in progress with leadership being provided by the Hon Sec with support from the CE and Admin Manager and oversight from the President and Council.

Finally, and by no means least, the Academy in collaboration with Engineers Ireland and the Association of Consulting Engineers of Ireland has initiated an oral history project involving our most distinguished and experienced members. The work has been completed by specialist oral history company, Irish Life and Lore (see

www.irishlifeandlore.com), and some 20 members of the three bodies took part.

A formal launch of the project's completed first phase will be held in April 2019. It is hoped and intended to carry on with this work in the coming months and it is viewed as a significant contribution to preserving the heritage and corporate memory of the profession. Many thanks to those who took part.

Gabriel J. Dennison (Dr.)
Chief Executive
April 2019

REPORT ON THE ACTIVITIES OF THE STANDING & REGIONAL BRANCH COMMITTEES

1. ENERGY & CLIMATE ACTION COMMITTEE

MEMBERSHIP

Chairman	Don Moore
Members	Terry Nolan Gerry Dugan Jim O'Brien Prof David Timoney Michael Hayden Paddy Larkin Neil O'Carroll Kieran O'Brien Dr Ed Walsh Tony Barry Paddy Power Prof Philip O'Kane Brian Sweeney

ACTIVITIES

An Energy Committee taskforce led by Terry Nolan is working on the following reports which will be published during 2018:

Gas Security

In 2016 over 60% of Ireland's annual gas demand was supplied from indigenous sources (mainly Corrib). The balance of supply, almost 40% came from the UK through the subsea interconnectors. This year, Corrib will supply about 50% of Ireland's gas annual demand. But, Corrib production is declining and production from the Kinsale storage facility will cease in three years from now. In 2025, Corrib will supply 25% of Ireland's gas demand. Ireland will rely on imports from the UK for 75% of our annual gas demand and 90% of peak-day gas demand. When Kinsale storage ceases, Ireland will have no gas storage – unlike most other EU countries.

The International Energy Agency published its World Energy Outlook report last November. The IEA projects that fossil fuel – coal, oil and gas – will supply 75% of the world's primary energy demand in 2040 (compared with 81% in 2016). Gas will make up 25% of this total.

World's dependence on fossil fuels will continue until at least the middle of this century. Ireland is highly dependent on energy imports. Banning oil and gas exploration (bill received Dail majority support in February 2018) is illogical. Ideally, Ireland should be trying to find other sources of indigenous gas supply to replace Corrib production and

improve security of energy supply

Infrastructure Required for Electric Vehicles

In November 2008, the Government set a target of 10% EVs by 2020 i.e. around 230,000 vehicles. The latest National Energy Efficiency Plan sets a target of 50,000 battery electric vehicles (BEV's) by 2020. There are approximately 1,700 electric-only cars in Ireland at present (April 2016). There has been an upward trend in EV registration in the past two years (about 400 new EVs in 2015). Coming from such a low base and despite the existence of a grant scheme, the Academy expects that the total number of BEVs in Ireland is unlikely to reach 5,000 by 2020. The rate of growth may increase beyond 2020 with the very large investments by companies such as Tesla and all the major car manufacturers. It is very difficult to forecast the uptake of BEVs in Ireland over the period to 2030. The report will look at infrastructure required to support the planned increase in BEVs.

2. INFRASTRUCTURE COMMITTEE

MEMBERSHIP

Chairman Tony Smyth

Members:

Ian Quinn
Padraic O'Donoghue
Anne O'Leary
Denis Healy
Jerry Mehigan
Peter Langford
Michael Hand
Jonathan Hegan
Seamus McKeague
Norman Apsley
Paddy Purcell
Finn Lyden
Fred Barry
Gerry Duggan
Liam Connellan
Margaret O'Mahony
Martin Cronin
Michael Phillips
Tom Leahy
Tony Smyth

Committee:

A meeting of the Infrastructure Standing Committee was held on 9th May 2018 to review progress and develop a work programme for 2018/19.

Work Programme for 2018/19:

A range of issues and priorities for the 2018/19 work programme were discussed.

- 1) It was agreed that the Costs of Delivering Infrastructure remains an important issue that the Academy needs to examine and comment upon. Work Group will continue with a renewed focus is to be on the delivery of infrastructure.
⇒ Additional members are to be approached to contribute to this WG.
- 2) The Digital Economy continues to be an issue that the Academy should address. The Chair agreed to identify appropriate members for a working group.
- 3) National Planning Framework & RSES – there will be a need to monitor progress on the development of the RSES and to attend regional workshops where appropriate.

Following the election of TS as President of the Academy, a new Chair for the Infrastructure was sought.

ACTIVITIES

MetroLink Submission:

- A submission was drafted by Gerry Duggan on the Public Consultation for the MetroLink. This issue was discussed in some detail by the committee and gave rise to a number of issues.
- The Committee recognised the detailed and professional approach set out in the draft paper but the issue as to whether it was appropriate for the Academy to make such detailed project-specific submissions was questioned and whether a more strategic emphasis is preferred.

National Planning Framework & Regional Spatial & Economic Strategies (RSES):

- The consultation and development of the RSES was monitored and a submission for the Southern Region submitted. There were no significant issues raised by members in relation to the Eastern & Midlands or the Western & Northern Regions consultations.

Costs of Delivering Infrastructure WG:

The issue of the costs of delivering infrastructure remains an issue of concern and importance. However, the work of this group was overtaken by discussions that developed with the Department of Public Expenditure and Reform (D/PER), arising from contact that the Chief Executive initiated with the Secretary General of the Department Mr. Robert Watt. On going discussions are underway and the Academy is undertaking a high-level review of a number of infrastructure projects.

The aim of the study is to:

- To identify and examine a number of projects in terms of the time, budget, scope and quality of the outcome versus the aims set at the outset of the project.
- To identify the reasons why the identified projects succeeded or failed and why they may have varied from their planned outputs;
- To report on the lessons, on a confidential basis, to inform future project delivery in the context of the challenges of meeting the NDP targets.

It is planned to have the high-level Report completed by Easter 2019.

3. ENTERPRISE, INNOVATION & EDUCATION COMMITTEE

MEMBERSHIP

Chairman	Eoin O'Driscoll
Members	Norman Apsley Martin Cronin Joe Harford Eileen Harkin-Jones John Hennessy John Kelly Adrian Long Mark Gantly John McCanny Daniel McCaughan John McGowan Brendan Murphy John O'Dea Philip O'Kane Ian Quinn Ed Walsh Gerry Wrixon

ACTIVITIES

A Draft Discussion Document '*Innovating for Growth - Improving Ireland's Innovation Ecosystem*' has been drafted and circulated to the Standing Committee for finalisation. Following Council approval the Discussion Paper is scheduled for publication in May.

The Discussion Document will be the basis for a **Seminar** in Dublin on September 20th 2019.

Ireland's **Medtech cluster** has created a successful innovation ecosystem that supports the creation and growth of Irish companies and that attracts and retains Foreign Direct Investment(FDI). An analysis of the drivers and dynamics of this cluster should provide important lessons for enterprise development in Ireland..... lessons on networks and collaboration that are relevant for Irish and Foreign companies and for Higher Education Institutes.This is an important story that is being explored and told through a number of different lenses.

An IAE working group has been established to examine and document the factors that led to the successful creation of a medtech cluster in Ireland and, using the lessons learnt, make recommendations for developing Ireland's innovation ecosystem.

A **workshop** will be held in Galway in Oct/Nov 2019 to share and discuss the output from the working group.

4. HERITAGE COMMITTEE

MEMBERSHIP

Chairman Dr Finbar Callanan

Members Dr Ron Cox
Dr Phil Donald
Mr John Martin
Prof Dermot O'Dwyer
An tUasal P.A.O'hEocha

ACTIVITIES

The publication of *Called to Serve* (Cox & O'Dwyer, 2014) recorded the biographies and presidential addresses of the past presidents of The Institution of Engineers of Ireland from 1835 to 1969. It set a pattern for the future work of the Committee, and it is planned to publish a second volume within the next two years featuring the biographies and presidential addresses of the Institution from 1970 to around 2020. The histories of the Institution and of the Academy will be brought up-to-date. These are considerable tasks and will be one of the principal occupations of the Committee during the coming years.

Apart from the researching and writing of *Called to Serve 2*, the Committee will continue to assemble biographies of all Academy members to be retained by the Academy as an important historical record of those who have contributed to Ireland's engineering and industrial history and heritage.

In addition, consideration is being given to the publication of a review of outstanding Irish engineers who have made significant contributions to the development of engineering enterprises on the island of Ireland and overseas over the last two centuries. Considerable research has already been carried out by Dr. Ron Cox, the late Sir Bernard Crossland, and others. The form that the project is to take is still under active consideration.

Discussions continue on the future preservation of records and reports and the making of them available on the web. The thorny question of hard copies versus digitisation has yet to be thrashed out. It is a serious problem faced by both the Academy and the Institution. Dr Ron Cox has taken up the position of Honorary Archivist to the Academy and it is hoped to develop an expanded role for an archivist in the future.

In late June 2018, we hope to organise a symposium to be attended by all the groups representing the various aspects of engineering heritage (industry, waterways, railways, etc.) to exchange views and raise greater public awareness of the subject.

5. SOUTHERN BRANCH COMMITTEE

MEMBERSHIP

Chairman Dr. Brendan J. Murphy

Members Dr. Paddy Caffery
Mr. Neil O'Carroll
Mr. William Fitzgerald
Mr. Denis Healy
Mr. Peter Langford
Mr. Pat McGrath
Mr. Jerry Mehigan
Mr. Tony Moloney
Mr. John Mullins
Ms Ann O'Leary
Mr. Bob Savage
Dr. Reg Shaw
Prof. Gerry Wrixon
Prof. Patrick O'Shea
Mr. Niall Olden
Mr. John T. Murphy

In Attendance Mr. Gerard Hallissey
Prof. Paul Ross

ACTIVITIES

Quarterly meetings of the Southern Branch membership are hosted by CIT. When possible meetings are attended by the President & the Chief Executive of IAE.

IAE issues such as name change, fundraising, patrons, gender balance and communications are discussed at each meeting and the members' opinions are conveyed to the President of IAE who regularly attends Southern Branch meetings.

The major issue for 2018 has been the development of the Regional Spatial Economic Strategy (RSES) for the Southern Region, which has been discussed at each meeting, and its progress tracked. The development of the three Metropolitan Area Strategic Plans for Cork, Limerick and Waterford are also being tracked. A special branch meeting is planned to develop a response to the draft RSES once published.

An update on the work of the three IAE standing committees of Infrastructure, Energy & Climate Action, Enterprise Innovation & Education are given at each meeting and commented on.

At each meeting, industry and academic members are asked to present new developments/research in their organisation, these presentations are much appreciated by the members. A number of field trips are planned for 2019.

6. NORTHERN BRANCH COMMITTEE

MEMBERSHIP

Chairman Jonathan Hegan

Members Geoff Allister
Norman Apsley
Eric Beatty
Adrian Bell
Gavin Campbell
Alan Cooper
Dr. Philip Donald
Prof. Vincent Fusco
Dr. John Hill
Prof. Brian Hogg
Alfie Kane
Paddy Larkin
Prof. Adrian Long
Mark Lowry
John Martin
Prof. Sir John Mc Canny
Dr. Daniel McCaughan
Billy McCoubrey
David McIlhager
Seamus McKeague
Prof. James McLoughlin
Don McQuillan
Dr. Gordon Millington
Prof. Bill Morrison
Prof. Máire O'Neill
David Orr
Michael Ryan
William Stafford

ACTIVITIES

In the past year we have:-

- Hosted the Council in Belfast at our October ('18) meeting.
- Hosted the Parsons Medal Award Ceremony on the HMS Caroline in Titanic Quarter. The recipient was Prof. Sir John McCanny, a member of the Northern Region.
- Chaired the Organising Committee for the Sir Bernard Crossland (SBC) Lecture. On 19th February 2019, the Chief Design Engineer for Rolls Royce AeroSpace delivered a lecture

on the evolution of the Trent Aircraft Engine to an audience of 200 at Queen's University.

In the coming year we will:-

- Host the Academy's Council meeting in October in Belfast.

- Continue to Chair the Committee for the 2020 SBC lecture. Already we have booked the Riddell Hall in The Queen's University for Tuesday 18th February 2020. We have yet to appoint a guest speaker.

7. WESTERN BRANCH COMMITTEE

MEMBERSHIP

Chairman Dr. John Killeen

Members Prof. Jim Browne
 Mark Gantly
 Gerry Killcommins
 Prof. Sean McNamara
 Prof. Noel Mulcahy
 John O'Dea
 Mike O'Flynn
 Ian Quinn
 Walter Raftery
 Dr. Ed Walsh

ACTIVITIES

Currently planning a Galway based event.

8. COMMUNICATIONS ADVISORY GROUP

MEMBERSHIP

Chairman Tom Leahy

Members Pat Kenny
Mary Kelly
John Power
Noel Mulcahy (RIP February 2019)
Michael Hayden
Tony Smyth (President)
Gabriel Dennison (Chief Executive)

ACTIVITIES

We mourn the passing of our dear colleague and CAG member Noel Mulcahy on 28th February 2019. Noel actively supported the work of the IAE Communications Group and is fondly remembered.

This has been a very busy year for the Communications Advisory group and all of the actions identified in the 2017/2018 communications business plan were successfully delivered.

The following are the key highlights

Website – A new website was designed and launched in September 2017 with greatly improved look and functionality. Following discussion at the 2018 AGM it was considered essential to emphasise the Academy involvement in technology. A new website masthead was designed and implemented incorporating “**Engineering and Technology**” while ensuring compatibility with our Articles of Association. This is now used on all IAE branding including letterheads, business cards and reports. Particular thanks go to our service provider One Productions and IAE administrator Fiona.

Communications Strategy – A discussion paper was prepared and circulated based on the balanced scorecard to integrate the 2017/2018 strategy with the planned 2019/2020 strategy. This was discussed and favourably received at a Southern Region meeting held in Cork. This builds on the strategic direction agreed by the Academy and is intended to focus on improving the public image of the Academy as well as focussing on the need to increase the production of publications from standing committees and working groups as well as looking for opportunities where, at low cost, the Academy can be the trusted partner where debate takes place on strategic matters of long term interest.

Spokespersons - The Executive have approved list of authorised spokespersons on key topics, who can also address relevant communication issues and in particular meetings with Politicians and Government Departments.

Parsons Medal Pre and post event articles were arranged for what was a very successful event held in Belfast. The Irish Academy of Engineering awarded its highest honour, the

Parsons Medal, to Professor Sir John V McCanny of Queens University Belfast (QUB) the recipient of the Parsons Medal at a ceremony on 25 October on board the historic warship, HMS Caroline, in Belfast. The Academy awards the Parsons Medal for Engineering Sciences to engineers or engineering scientists of exceptional ability in research or engineering technology. A special word of thanks goes to the committee and Northern Branch for a memorable event.

IAE Standing Committees were revamped and CAG met the Chairs so that communications oversight templates agreed by Executive will be fully populated to ensure active focus on communicating the excellent work of these committees and their working groups.

Publications

Reports were published on Energy, Metrolink, Brexit and Spatial Planning during the year and an ambitious programme of publications is planned for 2019/2022.

In particular the Communications Group prepared a template for Capital projects management. This was used in a detailed presentation to DPER, who are most interested in continuing their direct association with the Academy. The initial study and presentation was made in respect of the Dublin Port Tunnel. An additional 6 projects are now being examined with a view to giving strategic guidance to the Government on future capital investment including the NDP.

My thanks go to my fellow Directors and the members of the communications group for their active support.

ORGANISATION AND MEMBERSHIP OF THE ACADEMY

ORGANISATION

The membership of the Council/Board of Directors, the Executive Committee and the Membership Committee at March 31st, 2019 is as follows:-

COUNCIL/BOARD OF DIRECTORS

Mr. Tony Smyth, President/Chairman
Mr. Brendan Tuohy, Immediate Past President
Prof. Jim Browne, President Elect
Mr. Patrick Lynch, Honorary Treasurer
Mr. Bill Grimson, Acting Honorary Secretary
Dr. Norman Apsley
Mr. Fred Barry
Mr. Gavin Campbell
Mr. Joe Harford
Mr. Tom Leahy
Prof. Adrian Long
Mr. John McGowan
Mr. Seamus McKeague
Mr. Don Moore
Mr. Terry Nolan
Mr. Neil O'Carroll
Mr. Eoin O'Driscoll
Mr. Ian Quinn

Mr. Michael Hayden, Special Adviser

EXECUTIVE COMMITTEE

Mr. Tony Smyth, President
Prof. Jim Browne, Immediate Past President
Mr. Tony Smyth, President Elect
Mr. Patrick Lynch, Honorary Treasurer
Mr. Bill Grimson, Acting Honorary Secretary
Mr. Joe Harford
Mr. Tom Leahy
Prof. Adrian Long
Mr. John McGowan
Mr. Don Moore
Mr. Eoin O'Driscoll

Mr. Michael Hayden, Special Adviser

MEMBERSHIP COMMITTEE

Mr. Paddy Purcell, Chairman 2018

Mr. Joe Harford, Chairman 2019

Ms Anne Butler

Prof. Martin Curley

Prof. Adrian Long

Mr. Seamus McKeague

Mr. Bill Grimson, ex-officio

HONORARY SECRETARY'S REPORT

Meetings of Council/Executive

The Council (with members of the Executive) met 7 times since the AGM in 2018 including meetings held in Belfast and Cork. The Executive met twice with one further meeting scheduled for 11th April. Topics discussed included: membership and in particular the need to address the gender gap as well as the need to elect members who would be active participants in the work of the Academy; funding including a role for philanthropy; increasing the impact of the output of the Academy; relationships with Government departments; enhancing the publicity surrounding the award of the Parsons Medal; and Governance.

Election of new members of the Academy

At the time of writing no new members have been elected by Council since the AGM was held last year. The Membership Committee, however, have made recommendations for the election of five new members and the Committee are due to consider an additional 12 nominations shortly. One of the reasons for the delay in electing new members is the ongoing development of a parallel nomination process in addition to the normal one. The membership limit currently is 150 though it is intended to request members at the AGM to approve raising that limit to 200.

Official List of Members

A full list of members as at March 31st, 2019, the official year end date, is also included in succeeding pages. Names only are quoted for reasons of confidentiality. Full details of all members are held in the Official List of Fellows which is kept under secure conditions in the Administrative Office of the Academy at 22 Clyde Road. Access to the Register is normally restricted to the Officers of the Academy and the Chief Executive and is made available, as required, to members of Council/Board of Directors, the Executive Committee and the Membership Committee either by the Administrator, Ms Fiona McCarron or the Honorary Secretary, Mr. William Grimson. New members are listed on the Register only after they have been formally conferred with Fellowship.

Deceased Members

Obituaries are included in this Annual Report for distinguished colleagues who died during the year. We extend sincere sympathy to their families, colleagues and friends.

Parsons Medal

The Parsons Medal commemorates Sir Charles Parson the youngest son of William Parsons, 3rd Earl of Rosse, who built the great telescope at Birr Castle. Charles Parsons was one of the most renowned Irish engineer-inventors of the late 19th and early 20th centuries and is best remembered for developing the steam turbine. His turbine-powered yacht, *Turbinia*, in 1897 famously demonstrated the potential of the turbine technology at a Navy Fleet Review off Portsmouth. How appropriate then that the Parsons Medal Award Ceremony took place on HMS Caroline in Belfast. The worthy recipient was

Prof Sir John McCanny who received the medal from the Earl of Rosse. The award was made in recognition of Prof McCanny's **services to higher education and economic development, and specifically for his contribution to the design of special purpose silicon architectures for Digital Signal and Video Processing and Cryptography.**

William Grimson
Honorary Secretary

Appendix G

Annual Financial Statement 2018

Irish Academy of Engineering Limited
(A Company Limited by Guarantee)

Directors Report and Audited Financial Statements

For the year ended 31 December 2018

Irish Academy of Engineering Limited

Contents

	Page
Company Information	2
Directors' Report	3
Directors' Responsibilities Statement	4
Independent Auditors' Report	5-7
Profit and Loss Account	8
Balance Sheet	9
Cash Flow Statement	10
Statement of Accounting Policies	11
Notes to the Financial Statements	12
Supplementary information relating to Financial Statements	14

Irish Academy of Engineering Limited
Company Information

President Mr. Tony Smyth
Immediate Past President Mr. Brendan Tuohy
President Elect Prof. Jim Browne
Hon. Treasurer Mr. Patrick Lynch
Hon. Secretary Mr. William Grimson
Members Dr. Norman Apsley
Mr. Fred Barry
Mr. Gavin Campbell
Mr. Joe Harford
Mr. Tom Leahy
Prof. Adrian Long
Mr. Seamus McKeague
Mr. Terry Nolan
Mr. Neil O'Carroll
Mr. Ian Quinn
Mr. Tony Smyth
Mr. Ian O'Carroll
Mr. John McGowan
Mr. Don Moore
Mr. Eoin O'Driscoll

Special Adviser Mr. Michael Hayden

Registered Office 22 Clyde Road,
Ballsbridge,
Dublin 4
D04 R3N2

Auditors Mazars
Chartered Accountants & Statutory Audit Firm
Harcourt Centre
Block 3
Harcourt Road
Dublin 2

Bankers Allied Irish Bank
7/12 Dame Street
Dublin 2

Solicitors Beauchamps Solicitors
Riverside 2
43-49 Sir John Rogerson's Quay
Dublin

Irish Academy of Engineering Limited

Directors' Report

The Directors present their report and the financial statements for the year ended 31st December 2018.

Principal Activity and Review of the Business

The overall objective of the Academy is to advance the science and practice of engineering in Ireland and to support the expansion and enhancement of engineering education as an essential element in national development and the enhancement of living standards.

The Academy continues to implement its Strategic Plan, whose focus is the involvement of a greater number of members in its activities, and the new Standing Committees are functioning effectively.

- The Infrastructure Committee (Includes Spatial Planning & Transport)
- The Energy & Climate Change Committee
- The Enterprise, Innovation and Engineering Education Standing Committee
- The Heritage Standing Committee

The three Regional Committees have increased the geographical involvement of members and the Academy's outreach to industry, academic centres and potential corporate sponsors. Meetings of the Northern (Belfast), Southern (Cork) and Western (Galway) Committees are regularly held, and attended by the President of the IAE.

It is important to emphasise that the Irish Academy of Engineering is an all-island body concerned with long term issues where the engineering profession can make a unique contribution to economic, social and technological development. Its members are Irish engineers of distinction drawn from a wide range of disciplines and membership currently stands at 145 members. More than 25% of the current membership are based in Northern Ireland.

Research and Development

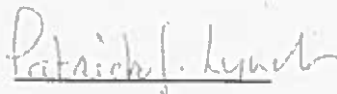
The company did not engage in any research and development during the year.

Political donations

The company made no political donations during the year ended 31 December 2018 and complied with the Electoral Act, 1997.

On behalf of the Board


William Grimson


Patrick J. Lynch

DATE 7th Nov. 2019

Irish Academy of Engineering Limited Directors' Responsibilities Statement

The directors are responsible for preparing the annual report and the financial statements in accordance with applicable Irish law and regulations.

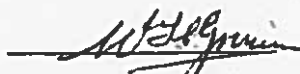
Irish company law requires the directors to prepare financial statements for each financial year. Under the law, the directors have elected to prepare the financial statements in accordance with Companies Act 2014 and FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" issued by the Financial Reporting Council, and promulgated by the Institute of Chartered Accountants in Ireland. Under the law, the Directors must not approve the financial statements unless they are satisfied they give a true and fair view of the assets, liabilities and financial position of the company as at the financial year end and of the profit or loss of the company for the financial year and otherwise comply with the Companies Act 2014. In preparing these financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether the financial statements have been prepared in accordance with applicable accounting standards, identify those standards, and note the effect and the reason for any material departure from those standards; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business.

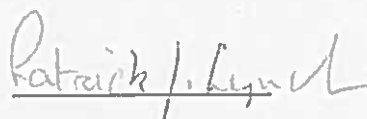
The directors are responsible for ensuring that the company keeps or causes to be kept adequate accounting records which correctly explain and record the transactions of the company, enable at any time the assets, liabilities and financial position of the company to be determined with reasonable accuracy, enable them to ensure that the financial statements comply with the Companies Act 2014 and enable the financial statements to be audited. They are also responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for the maintenance and integrity of the corporate and financial information included on the company's website. Legislation in the Republic of Ireland governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

On behalf of the Board



William Grimson



Patrick J. Lynch

DATE: 7th Nov. 2020

INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF IRISH ACADEMY OF ENGINEERING LIMITED

Report on the audit of the financial statements

Opinion

We have audited the financial statements of Irish Academy of Engineering Limited ('the company') for the year ended 31 December 2018, which comprise the Profit and Loss Account, the Balance Sheet, the Cash Flow Statement and notes to the financial statements, including the summary of significant accounting policies set out on page 11. The financial reporting framework that has been applied in their preparation is Irish Law and FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland.

In our opinion the financial statements:

- give a true and fair view of the assets, liabilities and financial position of the company as at 31 December 2018 and of its loss for the year then ended;
- have been properly prepared in accordance with FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland; and
- have been properly prepared in accordance with the requirements of the Companies Act 2014.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (Ireland) (ISAs (Ireland)) and applicable law. Our responsibilities under those standards are described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the company in accordance with ethical requirements that are relevant to our audit of financial statements in Ireland, including the Ethical Standard issued by the Irish Auditing and Accounting Supervisory Authority (IAASA), and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which ISAs (Ireland) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

**INDEPENDENT AUDITORS' REPORT TO THE
MEMBERS OF IRISH ACADEMY OF ENGINEERING LIMITED**

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2014

Based solely on the work undertaken in the course of the audit, we report that:

- in our opinion, the information given in the directors' report is consistent with the financial statements; and
- in our opinion, the directors' report has been prepared in accordance with the Companies Act 2014

We have obtained all the information and explanations which we consider necessary for the purposes of our audit. In our opinion the accounting records of the company were sufficient to permit the financial statements to be readily and properly audited and financial statements are in agreement with the accounting records.

Matters on which we are required to report by exception

Based on the knowledge and understanding of the company and its environment obtained in the course of the audit, we have not identified any material misstatements in the directors' report. The Companies Act 2014 requires us to report to you if, in our opinion, the disclosures of directors' remuneration and transactions required by sections 305 to 312 of the Act are not made.

We have nothing to report in this regard.

INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF IRISH ACADEMY OF ENGINEERING LIMITED

Respective responsibilities

Responsibilities of directors for the financial statements

As explained more fully in the directors' responsibilities statement set on page 4, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (Ireland) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the IAASA's website at: [http://www.iaasa.ie/getmedia/b2389013-1cf6-458b-9b8f-a98202dc9c3a/Description of auditors responsibilities for audit.pdf](http://www.iaasa.ie/getmedia/b2389013-1cf6-458b-9b8f-a98202dc9c3a/Description_of_auditors_responsibilities_for_audit.pdf). This description forms part of our auditor's report.

The purpose of our audit work and to whom we owe our responsibilities

Our report is made solely to the company's members, as a body, in accordance with section 391 of the Companies Act 2014. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the full extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members, as a body, for our audit work, for this report, or for the opinions we have formed.

Michael Tuohy

for and on behalf of Mazars

Chartered Accountants & Statutory Audit Firm

Harcourt Centre,

Block 3

Harcourt Road

Dublin 2

DATE:

Irish Academy of Engineering Limited

Profit and Loss Account

For the Year Ended 31 December 2018

	Notes	For the year ended 31-Dec-18 €	For the year ended 31-Dec-17 €
Income		132,410	120,615
Expenditure		<u>(147,575)</u>	<u>(128,260)</u>
Losses before taxation	1	(15,165)	(7,645)
Tax on loss on ordinary activities	2	<u>-</u>	<u>-</u>
Loss for the financial year		<u><u>(15,165)</u></u>	<u><u>(7,645)</u></u>
Surplus funds at start of year		65,139	72,784
Loss for the year		<u>(15,165)</u>	<u>(7,645)</u>
Surplus funds at end of year		<u><u>49,974</u></u>	<u><u>65,139</u></u>

Irish Academy of Engineering Limited


Balance Sheet

As at 31 December 2018

	31-Dec-18 €	31-Dec-17 €
Current Assets		
Cash at bank and in hand	58,239	81,686
Prepayments	<u>-</u>	<u>256</u>
	58,239	81,942
Accruals	<u>(8,265)</u>	<u>(16,803)</u>
Net Assets	<u>49,974</u>	<u>65,139</u>
Capital and Reserves		
Surplus Funds	<u>49,974</u>	<u>65,139</u>

On behalf of the board


William Grimson


Patrick J. Lynch

DATE: 4 Nov. 2019

Irish Academy of Engineering Limited**Cash Flow Statement***For the year ended 31 December 2018*

	31-Dec-18	31-Dec-17
	€	€
Cash Inflow from operating activities		
Loss for the year	(15,165)	(7,645)
(Decrease)/increase in accruals	(8,538)	12,901
Decrease in prepayments	256	-
Net cash flows from operating activities	<u>(23,447)</u>	<u>5,256</u>
Cash inflow from investing activities	<u>-</u>	<u>-</u>
Cash inflow from financing activities	<u>-</u>	<u>-</u>
(Decrease)/increase in cash and cash equivalents	(23,447)	5,256
Cash and cash equivalents at beginning of financial year	81,686	76,430
Cash and cash equivalents at end of financial year	<u>58,239</u>	<u>81,686</u>

Irish Academy of Engineering Limited

Statement of Accounting Policies

For the year ended 31 December 2018

Basis of Preparation

The financial statements have been prepared on the going concern basis and in accordance with Irish GAAP (accounting standards issued by the Financial Reporting Council and promulgated by the Institute of Chartered Accountants in Ireland and the Companies Act 2014). The financial statements comply with Financial Reporting Standard 102, 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' (FRS 102) and the Companies Act 2014.

The preparation of financial statements in conformity with FRS 102 requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the company's accounting policies. There are no key judgements in these financial statements.

Basis of Accounting

The financial statements have been prepared under the historical cost convention and in accordance with accounting standards generally accepted in Ireland and Irish Statute comprising the Companies Act 2014. Accounting standards generally accepted in Ireland in preparing financial statements giving a true and fair view are those published by the Institute of Chartered Accountants in Ireland and issued by the Financial Reporting Council.

Cash and Cash Equivalents

Cash and Cash Equivalents includes cash in hand, deposits held on call with banks, other short-term highly liquid investments with original maturities of three months or less and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities.

Reporting Currency

The financial statements are stated in Euro (€).

Taxation

The company pays no corporation tax because it has charitable status.

Member's Subscriptions

Members' Subscriptions are accounted for on the basis of contributions remitted in respect of the accounting period and include remittances received after the year end, pertaining to the previous period.

Irish Academy of Engineering Limited
Notes to the Financial Statements
For the year ended 31 December 2018

1. LOSS ON ORDINARY ACTIVITIES BEFORE TAXATION

The loss on ordinary activities before taxation is stated after, charging the following:

	2018	2017
	€	€
Auditors' remuneration	500	615
Directors' remuneration	<u>—</u>	<u>—</u>

2. TAX ON LOSS ON ORDINARY ACTIVITIES

The company pays no corporation tax because it has charitable status.

3. RELATED PARTY TRANSACTIONS

There were no contracts or arrangements in relation to the company's business, in which the directors or secretary of the company had any interest, as defined in the Companies Act 2014, at any time during the year ended 31 December 2018.

4. POST BALANCE SHEET EVENTS

There have been no significant events noted since the year end.

5. APPROVAL OF THE FINANCIAL STATEMENTS

The financial statements were approved by the Board on 01 May 2019.