Acadamh Ríoga na hÉireann
Royal Irish Academy

# International Delegates Report 2018

# Contents

# Foreword

**Professor Peter McHugh MRIA**
**Secretary for Policy and International Relations**
**NUI Galway**

Through its international work, the Royal Irish Academy promotes the excellence of Ireland's scientific, scholarly and cultural achievements. It is a long-established member and active participant in several global academic networks including the European Academies Science Advisory Council (EASAC), the Federation of All European Academies (ALLEA) and the International Science Council (ISC). These networks help Irish researchers to develop international collaborations, build cross-discipline partnerships between researchers and scientists, and bring together scientists, researchers and policymakers from around the world for the betterment of humanity, society and the natural world.

As is clearly evidenced by the contents of this report, the Royal Irish Academy is heavily involved in a broad range of activities within these associations, in many cases through project leadership roles, and consequently in making key contributions to the development of future European and international policy in the relevant domains. This is something we should be very proud of; since taking up the role of Policy and International Relations Secretary in 2016, I can directly attest to the high profile and hugely positive contribution that the Academy is making to these efforts, and the high esteem and respect that is afforded to us on the European and international stage.

2018 was a particularly successful year for the Royal Irish Academy and is a testament to the great international work being done by our officers, members, staff and external nominees and delegates. Inter alia, Prof Luke Drury MRIA was elected to the ALLEA Board in May at ALLEA's 19th General Assembly at the Bulgarian Academy of Sciences in Sofia and in July, Prof Anna Davies MRIA was elected as an ordinary member of the first Governing Board of the International Science Council. Furthermore, in September the Royal Irish Academy hosted both the ALLEA Permanent Working Group on Science and Ethics and the EASAC Environment Steering Panel at Academy House. Not only have we maintained a very active international profile, but we have firmly established ourselves as a principal academy by taking on leadership roles.

I wish therefore to express my sincere thanks to those who represent the Academy and Ireland in these international working groups and associated projects. Significant time and energy are demanded, but it is clear that this is given generously and enthusiastically, and for this the Academy is extremely appreciative. Also, I want to express my thanks to the hard-working and always positive and helpful Academy staff for making it all happen behind the scenes.

## RIA membership of European and International Scientific and Scholarly Alliances, 2018

European Academies Science Advisory Council (EASAC)
Federation of All European Academies (ALLEA)
Future Earth Global
InterAcademy Panel (IAP)
International Astronomical Union (IAU)
International Science Council (ISC)
International Federation of Associations of Classical Studies (FIEC) International Federation of Philosophical Societies (FISP)
International Geographical Union (IGU)
International Mathematical Union (IMU)
International Union of Biochemistry and Molecular Biology (IUBMB)
International Union for Quaternary Research (INQUA)
International Union of Academies (UAI)
International Union of Biological Sciences (IUBS)
International Union of Geodesy and Geophysics (IUGG)
International Union of History and Philosophy of Science and Technology/Division of History of Science and Technology (IUHPS-DHST)
International Union of History and Philosophy of Science and Technology/Division of Logic, Methodology, and Philosophy of Science and Technology (IUHPST-DLMPST)
International Union of Pure and Applied Chemistry (IUPAC)
International Union of Radio Science (URSI)
International Union of Theoretical and Applied Mechanics (IUTAM)
Thesaurus linguae Latinae (TLL)

## European Academies Science Advisory Council

*www.easac.eu*

**EASAC** - the European Academies' Science Advisory Council - is formed by the national science academies of the EU Member States to enable them to collaborate with each other in providing independent science advice to European policy-makers. It thus provides a means for the collective voice of European science to be heard. EASAC was founded in 2001 at the Royal Swedish Academy of Sciences.

With the growing importance of the European Union as an arena for policy, national science academies recognise that the scope of their advisory functions needs to extend beyond the national to cover also the European level. Through EASAC, the academies work together to provide independent, expert, evidence-based advice about the scientific aspects of public policy to those who make or influence policy within the European institutions. Drawing on the memberships and networks of the academies, EASAC accesses the best of European science in carrying out its work. Its views are vigorously independent of commercial or political bias, and it is open and transparent in its processes.

EASAC activities include:

- substantive studies of the scientific aspects of European policy issues
- reviews and advice about policy documents
- workshops aimed at identifying current scientific thinking about major European policy issues
- workshops aimed at briefing policy-makers
- short, timely statements on topical subjects
- lay summaries aimed at communicating with non-expert audiences.

## Report of the Academy's Nominee to the EASAC Environment Steering Panel

**Professor Michael B. Jones MRIA**
Trinity College Dublin

*Professor Mike Jones was elected as a Member of the Royal Irish Academy in 2003. He is Emeritus Professor of Botany at Trinity College Dublin. His main research interests are in plant ecophysiology which involves the study of climate-plant interactions, particularly the effects of changing climate, and the direct effects of rising $CO_2$ on agricultural and natural grasslands. He is internationally recognised for his research on plants with $C_4$ photosynthesis, their adaptation to temperate climates and their potential uses as energy crops. He is currently subject editor of Global Change Biology and GCB-Bioenergy and has published over 120 refereed research papers in lead international journals as well as four books and many book chapters. He was appointed a member of the EASAC Environment Steering Panel in November 2016.*

The EASAC Environment Steering Panel is chaired by Lars Walloe (Norway). Environment Programme Director Mike Norton (Japan / UK) is responsible for the Panel's general organisation and day-to-day business. The Panel meets normally twice yearly to discuss the latest issues of concern to the Environment science community, general strategy and decisions on project proposals.

The EASAC Environment Programme provides independent and leading-edge scientific assessments and advice to EU environment policy communities, drawing together experts from across the science academies of the EU. Topics are selected by EASAC Council based on advice from the Environment Steering Panel and can encompass a wide range of environmental issues of priority interest to the EU (such as climate change, air and water quality, wastes and resources, biodiversity, ecosystems and sustainability).

The Panel's first meeting of the year took place in Budapest, Hungary on 23rd April 2018 and was hosted by the Hungarian Academy of Sciences. The main topics of the meeting were:

- The release of the report 'Negative emissions technologies: what role in meeting Paris agreement targets?' in February 2018 and the initial response to the report.
- The release of an update to EASAC report number 22 (EASAC, 2013) on extreme weather events in Europe.
- An update on progress of a soils report lead by the Netherlands Academy of Sciences and Arts.

- A discussion of the future work programme and proposals for reports on GHG emissions of livestock, management of European peat and wetlands and marine contamination from plastics.
- Discussions on topics for a joint meeting with the EASAC energy panel on the following day.
- The programme for the joint meeting included presentations on 'Valuing dedicated storage electricity grids' from the Energy Programme director and 'Multi-functionality and sustainability in the EU's forests' by the Environment Programme director.

The second meeting of the EASAC Environment Steering Panel was hosted by the Royal Irish Academy in Dublin on 20th September 2018. Eleven members from European Academies attended. The meeting opened with a report from the Director, Professor Mike Norton on actions taken since the last meeting of the panel in Budapest in April 2018. This included:

- Progress on extending a 2015 EASAC report on Neonicotinoids to a study in Africa and the plans for a workshop hosted by the South African Academy in November to identify future research needs.
- The publication in June 2018 of a statement on carbon neutrality in forest bioenergy production and use.
- The potential role of negative emissions is being pursued by the EU. The Director is preparing an update of the report on Bioenergy, Carbon Capture and Storage and carbon dioxide removal as since EASAC examined the issues in 2017/18 many peer-reviewed papers and international reviews have been published
- Progress on a soils report indicating that a final draft for review had been produced and after its' review the report was being published.

The update was followed by a discussion of future projects. These were:

- A review of the environmental effects of waste plastics where it was decided to focus on the systems failures and changing to a system that makes re-use/recycling the central purpose, and
- A review of agricultural emissions of greenhouse gasses where it was suggested that the focus should be on reducing GHG emissions via changes in food production and consumer behaviour.

It was also agreed that the next meeting of the EASAC Environment Steering Panel will be hosted by the Slovenian Academy of Sciences in Ljubljana on 17/18 April 2019.

## Report of the Academy's Nominee to the EASAC Energy Steering Panel

**Professor Brian Norton MRIA**
Technological University Dublin

*Professor Brian Norton, immediate past President Dublin Institute of Technology, now changed to Technological University Dublin, has made significant contributions to the development of solar energy technologies particularly in the context of energy in buildings. He is author of two books and co-author of nine books, and over 450 research papers, including over 200 in major international learned journals. He has supervised forty-five doctorates, has nearly 8,000 citations with a h-index of 47. He serves as Associate Editor of "Solar Energy" - the premier international journal in the field - and serves on eight other editorial boards. He is Vice-President and Treasurer of the European Sustainable Energy innovation Alliance and on the board of the International Energy Research Centre. He is a member of the Board of the international Daylight Academy based in Zurich, Switzerland. He is a Fellow of the Energy Institute and Engineers Ireland, a Chartered Engineer (both in Ireland and the UK) and Fellow, Higher Education Academy. Professor Norton is a Member of the Royal Irish Academy, Ireland's highest academic distinction, and a Fellow of the Irish Academy of Engineering. His awards include the Napier Shaw Medal of the Chartered Institute of Building Services Engineers and the Roscoe Award of the Energy Institute. He is an Honorary Fellow of the Chartered Institute of Building Services Engineers (their highest honour). He is a co-author of the 2012 American Association of Publishers PROSE Award winning book "Comprehensive Renewable Energy".*

The meeting was held in the Palais Academies in central Brussels, was attended by majority of panel members. It was my first meeting as a member of the Panel.

The Energy Panel is comprised mostly of members with expertise in holistic consideration of energy systems, a wide range of disciplinary perspectives are evident from economies, behaviour sciences, engineering and physical sciences.

A significant part of the meeting was taken up by a presentation from Dr. Manuel Sanchez of DGENER Jimenez the EU Commission's proposals for the organisation of electricity markets. Their proposal gave a formal report role for "aggregator" of electricity produced by prosumers as part of an "unregulated" robust with distribution system operation and transmission system operations within regulated moulds. There forms of market structure were presented that embody the commission proposals.

There were considerable discussions on delays in progress on work to produce a report on “Dec arborisation of Transport”. Though no draft report was available, several members of the panel expressed disquiets as to whether the scope included grid decarbonisation and life cycle emissions of batteries. In the view of some panel members there was insufficient questioning acceptance of electric vehicle use as key to “defossilised” transport.

The Energy Panel is coordinated well with the Environment Panel as well as with the Science Advisory Committee itself.

There was an encouragement of National Academics to ensure they are committed when national governments prepare “Voluntary National Reports” on progress on meeting Sustainable Development books. The prompts the question, does the Royal Irish Academy accept this role and if so, how that role will be discharged?

## Report of the Academy's Nominee to the EASAC Working Group on Climate Change and Health

**Professor Patrick Goodman**
Technological University Dublin

*Pat Goodman graduated with a Hons. Degree from UCD in Experimental Physics. He completed a research Masters in Atmospheric Physics. He then trained and worked with Met Eireann as a Meteorologist for a number of years before returning to academia. He completed a PhD in the area of air pollution and Health. He is a recognised expert in the areas of air pollution and Climate change and health and has published in these areas. He has acted an expert advisor to the EU, WHO and USEPA, and as a reviewer for the IPCC reports (with emphasis on the health aspects). He is currently a member of the Academy Climate Change and Environmental Sciences committee.*

In 2018 the Academy was asked to nominate a representative to attend the EASAC working group on Climate Change and Health. As my research areas most closely matched the subject area, I was nominated and approved to attend on behalf of the Academy.

The EASAC administration arranged for a working group meeting to be held in April 2018. We were consulted on location (London or Brussels) and London was the preferred choice of most delegates.

The meeting was held at the Welcome Trust buildings in central London. Discussion documents were circulated by e-mail prior to the meeting. All delegates introduced themselves and their areas of expertise, ten countries were represented. The meeting was co-chaired by Volker ter Meulen (Germany), and Andy Haines (UK). Volker outlined the process, and how EASAC functions, and then Andy went through the scientific aspects, identifying the key issues to be addressed.

It was agreed that a follow-up meeting would be held in November 2018, again in London. The process involved a significant draft document being circulated during the summer of 2018. Delegates were asked to contribute and to make comments in advance of the November meeting. This work was undertaken by e-mail. At the November meeting held at the Royal Society in London the draft documentation was looked at in detail. It was agreed that the secretariat would revise the documentation, with input from the working group members, and that a revised final draft would be circulated to all working group members in early 2019. It is envisaged that a final report will be completed by mid-2019 and conclude the work of this group.

## All European Academies

www.allea.org


**ALLEA -** the European Federation of Academies of Sciences and Humanities - was founded in 1994 and currently brings together 59 Academies in more than 40 countries from the Council of Europe region. Member Academies operate as learned societies, think tanks and research performing organisations. They are self- governing communities of leaders of scholarly enquiry across all fields of the natural sciences, the social sciences and the humanities. ALLEA therefore provides access to an unparalleled human resource of intellectual excellence, experience and expertise.

Independent from political, commercial and ideological interests, ALLEA's policy work seeks to contribute to improving the framework conditions under which science and scholarship can excel. Jointly with its Member Academies, ALLEA is in a position to address the full range of structural and policy issues facing Europe in science, research and innovation. In doing so, it is guided by a common understanding of Europe bound together by historical, social and political factors as well as for scientific and economic reasons.

## Report of the Academy's Nominee to the ALLEA E-Humanities Working Group

**Dr Natalie Harrower**
Digital Repository of Ireland

*Dr. Natalie Harrower is Director of the Digital Repository of Ireland. Appointed Chair of the ALLEA E-Humanities working group in 2015, Dr. Harrower is also a member of the European Commission's high level expert group on FAIR data, the OECD Global Science Forum High Level Expert Group on Sustainable Business Models for Data Repositories, and the Governing Board for the Research Data Alliance Europe project. She is a member of Ireland's National Archives Advisory Committee (NAAC), the DARIAH Ireland Steering Committee, and Ireland's National Open Research Forum.*

The ALLEA E-Humanities Working Group was established in 2014 and charged with identifying and raising awareness of the priorities and concerns of the Digital Humanities, contributing to the Open Access agenda from a Humanities and Social Sciences perspective, and building consensus for common standards and best practices in E-Humanities scholarship and digitisation. Humanities data can be rich and complex, non-standardised in format, without common or consistent metadata and ontologies, and can be subject to complex rights issues. Consensus and best practice regarding digitisation and metadata standards for common usage, that still retain the richness of different disciplines and data types, can enable open access to humanities data, and facilitate data exchange and sharing between the wealth of archives, repositories and libraries across Europe. In 2015, the group published *Going Digital: Creating Change in the Humanities*, (edited by Dr Natalie Harrower) which was launched at a special meeting to representatives of the Executive Committee and stakeholders of the European scientific community in Brussels.

Following a series of events in 2016 and 2017 to develop the working group's new focus, in 2018 we developed a multi-part plan to address key aspects of the European Open Science agenda from the perspective of the humanities. The focus of this new agenda is to provide recommendations to humanities researchers, and more specifically to humanities research projects in European academies, on how they can better manage, preserve, and share the data they create during the research lifecycle. Research data management is a key element in the practice of Open Science, and open access to the data produced by publicly funded research is increasingly mandated by funders across Europe and beyond. The impact of the working group's outputs will be to collectively move forward the capacity for humanities researchers to implement data best practices into the research lifecycle.

On behalf of ALLEA, I joined the programme committee for an ICSU workshop on Open Data in Brussels in January 2018, and throughout 2018 I have provided a communication channel between ALLEA and

the Research Data Alliance. At a late 2018 meeting hosted by the Royal Academy of Belgium, the group decided that recommendations would align with the FAIR data principles as detailed by the final report of the European Commission's FAIR data expert group[1], of which I was also a member. A principled statement that details the group's work will be presented at the ALLEA General Assembly in Bern, May 2019, and will be followed by an open consultation period where humanities researchers can contribute to the series of recommendations, before final publication by ALLEA in late 2019.

In 2018, Timea Biro at the Digital Repository of Ireland was appointed Secretariat to the working group. Prof. Luke Drury MRIA was appointed the ALLEA board's liaison to the working group in late 2018, and the group provided input into ALLEA's response to Plan-S which was drafted by Prof. Drury.

In addition to impacting the data practices – and indeed overall research best practices of humanities researchers across Ireland, the work of the ALLEA e-humanities group provides a important European input point for the Royal Irish Academy into Ireland's National Forum on Open Research, which is the primary body tasked with delivering Ireland's principles on open access to publications, and open access to FAIR research data.

[1] Turning Fair into Reality, Final Report and Action Plan from the European Commission Expert Group on FAIR Data. Luxembourg: Publications Office of the European Union, 2018. DOI: 10.2777/1524

## Report of the Academy's Nominee to the ALLEA Permanent Working Group Science and Ethics

**Dr Maura Hiney**
Health Research Board

*Dr Maura Hiney has a PhD in Molecular Diagnostics and Epizootology from the National University of Ireland Galway. She is currently Head of Post-Award and Evaluation at the HRB, managing and evaluating a funding portfolio of approximately €180M, and developing supporting policies. From 1990-1999 she worked as a senior researcher and managed a disease diagnostics service for the Irish fisheries industry and from 2000-2007 Maura was Director of Research Support Services for NUI Galway. She has been influential in raising awareness of RI issues in Ireland, establishing a National RI Forum and developing a national RI policy. Maura is a member of the European Network of RI Offices (ENRIO) and chaired the Science Europe Working Group on RI. With ALLEA, she coordinated a revision of the European Code of Conduct on RI in 2017. She sits on the Policy Advisory Boards of the EU-funded ENTiRE and VIRT2UE projects and is a partner in the SOPs4RI project.*

**2018 ALLEA Activities**

In 2018, Open Access to scientific publications and data was the primary policy focus of the Working Group. While not a new idea, Open access to scientific knowledge has gained considerable traction with the advent of the European Commissions' Open Science Agenda. Open data access and open access publications are key pillars of this agenda, along with open innovation and research integrity. However, the Open Science agenda presents significant challenges for researchers in Ireland and elsewhere, not just because of the many issues of practical implementation, but also because there are ethical considerations that need to be explored and resolved.

**Workshop on Open Access to Publications and Data**

Dr Maura Hiney worked with other members of the Working Group to develop a programme for a one-day workshop on 1February 2018 entitled: ***Open access publishing, a windy road***. The workshop was driven by Professor László Fésüs from the Hungarian Academy of Sciences and hosted by the Royal Flemish Academy of Belgium for Science and the Arts.

While there has been much progress on open access publishing, several unintended consequences and ethical conundrums have hindered its full-scale implementation and adoption by the research community. The purpose of the workshop was to identify some of these issues and to discuss possible solutions. The panels of the workshop covered issues ranging from editorial responsibilities in the

Open Access world to ways of identifying questionable and unethical publishers. Further issues that were addressed were the need to balance transparency with resilience and the effects of Open Access on the assessment of research performance. The outcomes of the workshop have relevance for Irish researchers and for the ongoing work of the National Open Research Forum.

**Statement on Implementation of Plan S**

In December 2018, ALLEA published a statement on Plan S, an initiative of a coalition of European research funders to move the scientific publishing system towards full open access by 2020. This statement was informed by contributions from various ALLEA Working Groups, including Science and Ethics and the Working Group met with the lead author of the statement, Professor Luke Drury at its meeting in Dublin in 19th September 2018, to discuss the scope and content of the statement.

The Working Group acknowledged the frustration felt by many about the speed at which academia is moving to true open access but stressed that there are challenges in trying to implement open access in what is basically still a paper and print based model of publishing. Plan S affords an opportunity to address these concerns. However, the intention is to implement Plan S by 2020, which will have implications for Irish researchers as they seek research funding from public funders. In 2018, the National Open Research Forum developed an agenda for a briefing meeting on Plan S in January 2019, hosted by the Royal Irish Academy. Prof Gorän Hermerén, Chair of the Working Group on Science and Ethics was invited to be one of the two keynote speakers at this event.

**Evaluating science in more meaningful and ethical ways**

In 2018 the Working Group began developing its thinking on "Evaluating science in more meaningful and ethical ways" and will work towards a workshop on this topic in 2019, out of which a Statement can be developed. This is very complementary to the work currently underway by Dr Maura Hiney with Australian colleagues on a plenary session on Responsible Evaluation of Research and Innovation at the 6th World Congress on Research Integrity.

## Report of the Academy's Nominee to the ALLEA Horizon Europe Working Group

**Professor Mary O'Dowd MRIA**
Queen's University Belfast

*Professor Mary O'Dowd was elected a Member of the Royal Irish Academy in 2010 and currently serves as the Academy's Polite Literature & Antiquities Secretary. Her research interests have focussed on early modern Ireland and more recently on women and gender in Irish history. She was a founding member of the Women's History Association of Ireland and served as president of the International Federation for Research in Women's History, 2000-2005. In 2010 she was elected an honorary member of the Federation's Board in recognition of her work for the Federation.*

This group met in Stockholm at the Royal Swedish Academy of Letters, History and Antiquities in June 2018. The meeting focussed on the proposed structure and budget for Horizon Europe as announced by the European Parliament.

There was concern expressed that it was proposed to reduce the 7 Societal Challenges in Pillar II in Horizon 2020 to 5 Global Challenges in Horizon Europe. One of the proposed challenges to be deleted is that on 'inclusive, innovative and reflective societies' in which the humanities and social sciences proposals had been most successful. The Group discussed the 5 Global Challenges and suggested ways in which they might be retitled to facilitate project proposals from Humanities and Social Science researchers.

There was also discussion about definitions of 'innovation' and criticism of the narrow way in which it was linked in the documentation on Horizon Europe to applications for industry.

The distribution of the budget to the different clusters and the European Research Council was also discussed. Subsequent to the June 2018, meeting, the British Academy drafted a series of amendments based on the discussions of the ALLEA Framework 9 Working Group to be submitted to the European Parliament. These recommend:

- Reinforcing the value of frontier and fundamental research in Horizon Europe
- Requiring a broader definition of innovation that includes social, societal and cultural innovation
  Stronger recognition of the value and importance of the humanities and social sciences including the addition of a new article which would require the Commission to continue its

current annual monitoring of the integration of SSH in Horizon 2020
Reinforcing the value of research excellence and particularly that excellence should be the sole criterion for achieving the goals of Horizon Europe
Changing the proposed five clusters ('Health'; 'Inclusive and Secure Society'; 'Digital and Industry'; 'Climate, Energy and Mobility'; 'Food and Natural Resources') to seven:

1. 'Wellbeing and Demographic Change'
2. 'Inclusive and Creative Society'
3. 'Digital Society, Ethics and Work'
4. 'Sustainable and Mobile Societies'
5. 'Environmental Futures'
6. 'Secure societies'
7. 'Heritage and Dignity'

- Recommending redistribution of the budget allocation to increase funding for the ERC and to make a more equitable distribution of funding across the clusters
- Changing the future associate status of Switzerland and the UK to enable both countries to fully participate in Horizon Europe whilst paying a significant financial contribution into Framework Programme budgets.

The recommendations of the ALLEA Framework Programme 9 Working Group are relevant to all researchers in Ireland, particularly those in the Humanities and Social Sciences. The Irish academic community should endorse the ALLEA recommendations which have the support of researchers throughout Europe.

## Report of the Academy's Nominee to the FEAM (Federation of European Academies of Medicine) /ALLEA Committee on Health Inequalities

**Professor Brian Nolan MRIA**
University of Oxford

*Brian Nolan is Director of INET's Employment, Equity and Growth Programme, Professor of Social Policy at the Department of Social Policy and Intervention, and Senior Research Fellow at Nuffield College Oxford. He was previously Principal of the College of Human Sciences and Professor of Public Policy at University College Dublin. He is an economist by training, with a doctorate from the London School of Economics, and his main areas of research are income inequality, poverty, and the economics of social policy. He has been centrally involved in a range of collaborative cross-country research networks and projects. He edited Inequality and Inclusive Growth in Rich Countries: Shared Challenges and Contrasting Fortunes and Generating Prosperity for Working Families in Rich Countries, both published by OUP in 2018. He is a member of the Royal Irish Academy.*

A Scientific Committee on Health Inequalities was established by FEAM and ALLEA in late 2017 to review the scientific evidence on inequalities in health by socioeconomic position, and to look particularly into methodological issues including the assessment of causality. The committee is chaired by Professor Johan Mackenbach of Erasmus University, a leading expert in the field, and its work is supported by the Royal Netherlands Academy of Arts and Sciences. The committee having been established, I was approached by Professor Mackenbach to ask if, as a member of a national academy, I would join this committee, and I agreed to do so.

The core concern of the committee is that new methodological insights and approaches, and empirical evidence based on them, are calling into question common understandings of the relationship between health and socio-economic position, and what underlies the inequalities in health that are such a widespread source of policy concern. There is growing uncertainty about the causal effects of socioeconomic position on health, and about what mediates the effect of socioeconomic position on health. This is highly problematic from both a scientific and a policy point of view. For example, reports from the World Health Organisation and elsewhere have argued that a reduction of income inequality is an important means to mitigate health inequalities, but that is based on the belief that income exerts a causal influence on health, which is questioned in some recent studies by economists. Other examples are contrasting estimates of the role played by smoking in explaining socio-economic inequalities in mortality, and the contribution of differential access to health care.

The absence of scientific consensus on causal mechanisms underlying health inequalities is partly due to differences in research methodologies across disciplines. There are many different methodologies available to study observational data, and limited consensus between disciplines on the relative merits of different methods; the merits and limitations of recently-developed approaches are debated. There is thus a clear need to critically review the available evidence on the explanation of health inequalities and to strive for interdisciplinary consensus on the methodological challenges facing this type of research. This provides the rationale for the decision by FEAM and ALLEA, which together span a broad spectrum of relevant disciplines (including epidemiologists, public health researchers, medical sociologists, health psychologists, health economists and political scientists) to appoint a multidisciplinary committee to reviewing existing scientific research, in order to build a basis for interdisciplinary consensus on causes and remedies of health inequalities.

The committee has embarked on what is envisaged as a two-step project. The first stage has focused on reviewing the scientific literature to identify the main areas of scientific disagreement. The results from this review have been set out in the attached discussion paper, which served as input for the international conference organised in Amsterdam on 24th. May 2018, bringing together key opinion leaders from various scientific backgrounds. The report summarizes recent methodological insights into how best to approach the crucial questions outlined earlier and reviews the existing evidence in that light. In concluding, it sets out key questions that could be addressed in the second step of the project and makes recommendations in that regard. Support from all member academies of FEAM and ALLEA is being sought in order to strive for interdisciplinary consensus and draft a full report on mechanisms underlying health inequalities, and, in addition, to review existing policy recommendations in the light of these new insights. That report would be aimed at researchers studying health inequalities and at national and European policy-makers interested in reducing health inequalities.

## Report on ALLEA–British Academy Working Group on Truth, Trust & Expertise

**Professor Maria Baghramian, MRIA**

University College Dublin

**Professor Luke Drury, MRIA**

Dublin Institute of Advanced Studies

*Maria Baghramian is a Professor in the School of Philosophy at University College Dublin. she graduated from Queen's University Belfast in Philosophy and Social Anthropology (1983) with a Double First and received a PhD from Trinity College Dublin (TCD) in Philosophy of Logic under the supervision of Timothy Williamson (1990). She has taught in TCD (1986-1990) and in UCD and since 1990, including being the Head of UCD School of Philosophy (2011-2013). Professor Baghramian has also held visiting posts in Harvard, MIT, University of Yerevan, the Department of Philosophy, Harvard (FebruaryJuly 2014), Institut Jean Nicod, École normale supérieure, Paris and various universities in China. She was elected a member of the Royal Irish Academy in 2010 and was awarded a Fulbright senior scholarship in 2013.*

*Luke Drury graduated from TCD in pure mathematics and experimental physics in 1975 and went on to study astrophysics at the Institute of Astronomy, Cambridge, UK obtaining his PhD in 1979 under the supervision of Dr John M. Stewart. He then worked in the Max-Planck-Institut fuer Kernphysik in Heidelberg with Prof H. J. Voelk before returning to Ireland as Senior Professor in the then Cosmic Ray Section in 1986. He was President of the Royal Irish Academy from 2011 to 2014.*

The Working Group Truth, Trust and Expertise (WGTTE), was constituted jointly by ALLEA and the British Academy in September 2017. WGTTE is a transnational platform aiming to achieve a better understanding of the nature of and the relationship between truth, trust and expertise in the field of science. The expert group explored current and past dynamics of public trust in experts in the context of the contested norms of truth, justification and evidence in scientific research and beyond. The main objective of the Working Group was to promote the values of science and research, as well as the benefits of including scientific reasoning in public discourse. The central themes investigated by the group were the alleged loss of trust in science and evidence and the question of how reliable information can and should be acquired and communicated both within science and between

scientists and he general public. The group further aimed to establish a pan-European, or possibly global, initiative on the above questions in the context of changing social and political contexts.

Members of the Working Group Truth, Trust and Expertise were

- Baroness Onora O'Neill (Co-Chair) – British Academy and Royal Society
- Ed Noort (Co-Chair) – Royal Netherlands Academy of Arts and Sciences (KNAW)
- Maria Baghramian – Royal Irish Academy
- José van Dijck- Royal Netherlands Academy of Arts and Sciences (KNAW)
- Luke Drury – Royal Irish Academy (RIA)
- Göran Hermerén – Royal Swedish Academy of Letters, History and Antiquities (KVHAA)
- Gloria Origgi – Institut Jean Nicod
- Christiane Woopen – Köln University

**Activities**

19th February 2018. Workshop in London at the British Academy on the alleged loss of trust(worthiness) in science and expertise in a changing world. Professor Maria Baghramian MRIA of the Royal Irish Academy presented a paper on the topic of trust in science to the group on that occasion.

15th May 2018. Workshop in Sofia at the Bulgarian Academy of Sciences on the spectres of scientific knowledge production in the 21st century. Professor Luke Drury MRIA presented a paper on the topic of "How to create trustworthy knowledge - a physicist's perspective" at the workshop.

16th May 2018. The members of the Working Group took part and contributed to a conference on "Science in Times of Challenged Trust and Expertise" in the context of the ALLEA General Assembly 2018 at the Bulgarian Academy of Sciences.

31st August 2018. Workshop in Amsterdam at the Royal Netherlands Academy of Arts and Sciences on the changing landscapes of communication. The workshop examined how the increasing use of social media and other digital transformations affect and challenge trust relations between science, media and society.

**Publications by WGTTE**

ALLEA Discussion Papers

- Loss of Trust? Loss of Trustworthiness? Truth and Expertise Today
- Trust Within Science: Dynamics and Norms of Knowledge Production
- Trust in Science and Changing Landscapes of Communication

Other Contributing Experts to the Working Group and the workshops were:

- Ash Amin – British Academy
- Yesim Arat – Science Academy Istanbul
- David Boucher – Learned Society of Wales
- Boris Grozdanoff – Bulgarian Academy of Sciences
- Katherine Hawley – Royal Society of Edinburgh
- Lisa Herzog – Global Young Academy
- Cathrine Holst – University of Oslo
- Vassil Kirov – Bulgarian Academy of Sciences

- Stephan Lewandowsky – University of Bristol
- Antonio Loprieno – Swiss Academies of Arts and Sciences
- Susan Owens – British Academy
- Mike Schäfer – University of Zurich
- Judith Simon – University of Hamburg
- Günter Stock – Berlin-Brandenburg Academy of Sciences and Humanities
- Nikolay Vitanov – Bulgarian Academy of Sciences
- Helen Wallace – British Academy
- Erika Widegren – Re-Imagine Europa
- Milena Žic Fuchs – Croatian Academy of Sciences and Arts

## International Science Council

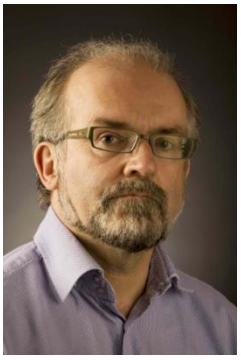
*www.council.science*


ISC – the International Science Council is a non-governmental organization with a unique global membership that brings together 40 international scientific Unions and Associations and over 140 national and regional scientific organizations including Academies and Research Councils.

The ISC was created in 2018 as the result of a merger between the International Council for Science (ICSU) and the International Social Science Council (ISSC).

It is the only international non-governmental organization bringing together the natural and social sciences and the largest global science organization of its type. The mission of the International Science Council is to act as the global voice for science.

# Report of the Academy's Representative at the Inaugural Meetings of the International Science Council (ISC) and the founding meeting of the Euro-ISC



**Professor Luke Drury MRIA**,
Dublin Institute for Advanced Studies

*Luke Drury graduated from TCD in pure mathematics and experimental physics in 1975 and went on to study astrophysics at the Institute of Astronomy, Cambridge, UK obtaining his PhD in 1979 under the supervision of Dr John M. Stewart. He then worked in the Max-Planck-Institut fuer Kernphysik in Heidelberg with Prof H. J. Voelk before returning to Ireland as Senior Professor in the then Cosmic Ray Section in 1986. He was President of the Royal Irish Academy from 2011 to 2014.*

**International Science Council (ISC)**
The founding general assembly of the new International Science Council resulting from the merger of the former ICSU and ISSC organisations took place in Paris from 3-5 July 2018.

The first day was devoted to discussions of the strategic direction of the new organisation and opportunities for networking among the membership. An intervention was made on behalf of RIA in the strategy discussion requesting that while the emphasis on a results-oriented strategy was important, the importance of support for basic fundamental research had to remain as one of the core values of the new organisation. This was supported by one of the representatives of the National Academy of Sciences who expressed similar concern about developments in the USA.

The second day was devoted to the formal business for the GA. I was elected as one of the four members of the resolutions committee charged with deciding what resolutions should be put to the GA and agreeing the final draft text to be proposed. There was one significant resolution which involved restating, for the avoidance of any doubt, the positions of the three Chinese organisations joining the new ISC which had been agreed in advance between the ISC secretariat and the three organisations involved. Two other requests concerning gender equality and support for the UNESCO world year of fundamental research in 2022 were noted and referred to the Board for consideration.

The first President of the ISC was elected, Daya Reddy, Professor of Applied Mathematics in Cape Town and the President Elect was elected as Peter Glucksmann, chief science advisor to New Zealand and head of the international network of chief science advisors. The RIA nominee, Professor Anna Davies, was elected to the board.

The final day was devoted to general presentations celebrating science and the new ISC. Overall there was a great sense of positivity about the new organisation and a clear recognition that in this age of deliberate dis-information and serious global risks, science must speak with one strong voice.

**Euro- ISC**

I attended on behalf of the RIA the founding meeting of the Euro-ISC group (and final meeting of the Euro-ICSU group) hosted by the Russian Academy of Sciences in Moscow on the 13 and 14 September.

The formal business of the meeting was to dissolve the Euro-ICSU group (the ad hoc group representing the European national bodies who were members of ICSU) and to replace it with a new body representing the European members of the new International Science Council (ISC). There was a wide-ranging discussion of the high-level strategic issues facing the new ISC and the European expectations in this regard.

In addition to speaking outwards on behalf of science there was also a broad recognition that the ISC also has a duty to speak to the science community itself and articulate what constitutes a good "scientific culture". If science is a global public good, then it needs global standards for research integrity and conduct. The necessity of protecting the rights of scientists to travel to international conferences was also emphasised.

The group elected a management group and I am pleased to have been elected as a member. The group also reappointed the Swiss Academy as the host for the secretariat for the next three years.

## International Astronomical Union General Assembly, Vienna, Austria, 20-31 August 2018.

**Dr Matt Redman**,
NUI Galway

Dr Matt Redman is Director of the Centre for Astronomy NUI Galway, and is Chair of the Astronomical Sciences Group of Ireland, the professional association for astronomers in Ireland. His research interests are in star formation and star destruction processes. Matt uses radio and millimetre telescope data to look inside star forming molecular clouds, and optical and millimetre data for studying planetary nebulae, novae and supernova remnants. He works at the observational and theory interface, simulating data from telescopes using state of the art morpho-kinematic and radiative transfer codes. His work has been supported by Science Foundation Ireland and Irish Research Council grants, an equipment grant for I-LOFAR, and through telescope time awards.

The triennial IAU (International Astronomical Union) General Assembly was held in Vienna over two working weeks in August. The main formal business of this GA was carried out over four meetings during this time. These were:

- First Preparatory Business Meeting on 20th August for the National Delegates only.
- First General Assembly on 21st August.
- Second Preparatory Business Meeting on 29th August, for the National Delegates only.
- Second General Assembly on 30th August.

The reports and business items sent in advance to myself and to the RIA via Marie Coffey were discussed and voted upon at these meetings. Furthermore, I also attended the General Assembly of the European Astronomical Society, which took place at the IAU GA venue on 27th August. Finally, I held discussions with the president of the Royal Astronomical Society about improving links between Irish and UK astronomers.

Noteworthy points and issues arising, specifically relevant to Irish academia:

- A resolution to rename the Hubble Law the Hubble-Le Maitre Law was passed, in recognition of the overlooked contribution of the latter. Mindful of the contentious debate around the reclassification of Pluto, at the IAU GA in 2006, this matter will be passed to the full IAU membership for final ratification. There is likely to be an interesting wider debate beyond

astronomy around the desirability of renaming scientific laws and discoveries on the basis of reappraisals of historical events. An Irish astronomy example is the Kuiper Belt in the outer solar system, which many argue should be named the Edgeworth-Kuiper belt.

- A new category of Junior Member of the IAU has been created which will allow early stage researchers to participate in the IAU for up to six years. Before or at this time, if a Junior Member has become an established career astronomer through e.g. a faculty appointment, then they can become an IAU member. Note that Junior Members do not count in the calculation of membership dues to the IAU. Ireland is currently a Category I member and thus pays the minimum of one unit of membership fee per annum. ACTION: I will encourage all eligible postgraduates and postdoctoral researchers in Ireland to become Junior Members of the IAU. This will help these researchers engage with international colleagues in the different scientific divisions of the IAU.

- In the new strategic plan of the IAU from 2020, an Office of Astronomy for Education is to be established. There will be a national representative from each country to this body who will be able to help coordinate IAU initiatives in this area.

- I will monitor the implementation of the Office of Astronomy for Education and help identify a national representative for Ireland.

- Following a proposal I put forward, the IAU granted Honorary Membership to Mr Joe Hogan, in recognition for his work in helping Irish astronomers in establishing the I-LOFAR radio telescope in Birr, and in securing ESO membership for Ireland. An announcement and presentation was made to Joe Hogan at the Irish National Astronomy meeting in September 2018.

- The European Astronomical Society (EAS) is opening free membership to all members of affliated societies. The ASGI became an affiliated society last year and so now all members of the Irish astronomical community will be able to become members of the EAS. Some issues remain regarding data protection.

- I will encourage all members of the ASGI to join the EAS. This will allow for more scientific exchanges with colleagues across Europe. I will also propose to the ASGI executive that Ireland considers hosting the European Week of Astronomy and Space Science in the near future. This annual meeting attracts over a 1000 delegates. I would however advise against applying to host the IAU GA for the moment as this meeting is simply too large

- In scale and scope for the current community to look after.

The next IAU will be held in 2021 in Busan, Korea. Following very strong applications from four shortlisted countries, South Africa was chosen to host the 2024 IAU GA.

## International Meeting of the Union of Biochemistry and Molecular Biology, Seoul, Korea, 4-8 June 2018

**Professor Richard O'Kennedy MRIA**
Dublin City University

*Professor Richard O'Kennedy was elected a Member of the Royal Irish Academy in 2014. He is a founding member and Professor in the School of Biotechnology in Dublin City University (DCU). He has supervised 65 PhDs, published extensively (over 230 peer-reviewed papers, 30 reviews, 40 book chapters, two books), reviews for many journals and international scientific bodies, has several patents and licensed technologies/reagents and works closely with Irish/international companies. Currently he is President of both the Institute of Biology of Ireland and the London International Youth Science Forum.*

Previously, I was mandated by the Life and Medical Sciences Committee of the Academy to be its representative for the International Union of Biochemistry and Molecular Biology (IUBMB).

Following a vote at IUBMB, I was placed as reserve member on the International Nominating Committee of the IUBMB and then became a final member of the Committee for 2017-18. Unfortunately, because of change over of the committee there was no nomination from Ireland and the RIA for continuance beyond 2018 so other countries have now secured membership on this committee, following a vote in Seoul.

The purpose of the IUBMB is to provide international representation for Biochemistry and Molecular Biology in relation to education and research and to ensure that their scientific interests are advocated fully (see Appendix 1). Ireland is a full member, though it was noted that up to a short time before the meeting in Seoul it had failed to make its payment for several years. This was noted by the Secretary General and is the responsibility of the RIA.

Over 3,300 participants attended the meeting in Seoul from about 58 countries. It was a joint meeting between the IUBMB (241h Annual Congress) and the Federation of National Societies of Biochemistry and Molecular Biology in the Asian and Oceanic region (151h Annual Meeting). The main organizer was the Korean Society for Biochemistry and Molecular Biology.

There was a very extensive program covering key aspects of research in Biochemistry and Molecular Biology (http://Www.iubmb2018. Org/subtglance.php) which ran from the 5-8 June, held in the COEX Convention Centre in Seoul. This was an excellent facility linked to the World Trade Center.
Each day started with 2-3 main lectures. They were excellent for the most part, were very well attended and focused on key emerging areas. There was a good mix of national / international speakers with adequate time for questions.

Following these lectures there were 3-4 parallel sessions covering areas such as the tumor microenvironment, cell signaling, genomics, metabolic regulation, chemical biology, frontiers of structural biology, immune activation, host-microbe interaction, autophagy and cell turnover, emergent technologies for biohazard detection, extracellular vesicle biology, brain research, hypoxia, autism, stem cells, vaccines, cancer metabolism, precision medicine, education, antibody therapy, autophagy, advances in cancer and glycomics. This is by no means a fully exhaustive list and for more detail, the reader is referred to the website (http://www.iubmb2018.org/sub /glance.php).

There was a very extensive industrial exhibition associated with the meeting with international and, particularly, Korean companies. In addition, there were very large poster sessions associated with the key subject topics of the scientific sessions.

The Council meeting of the IUBMB took place on June 6. It was attended by delegates from over 50 countries. Details of the agenda are included in Appendix II. The associated documentation was very extensive and was provided for the meeting in a drop box.

Full minutes will be provided by the Secretary General in due course. It is of interest to note that the outgoing Secretary General was Prof. Michael Walsh, currently Professor of Biochemistry in the University of Calgary, Canada. He is a graduate of UCD.

Key new positions holders are

- President: Andy Wang (China)
- Secretary General: Jim Davie (Canada)
- Treasurer: Francesco Bonomi (Italy)
- Member for Congress and Focused Meetings: Ilona Concha Grabinger (Chile)
- Member for Publications: Zengyi Chang (China)

I took part in the various sessions of the meetings, asked questions, had discussions and was involved very extensively with the IUBMB officials. This led to very positive interactions.

It should be noted that Prof. Keith Tipton, MRIA is very active on the Nomenclature Committee associated with the IUBMB.

I was also asked to be involved in other aspects of the IUBMB including the setting up of an affiliate organization in Qatar, where I now work.

There are many areas where Irish Biochemistry and Molecular Biology could and should benefit from its membership of the IUBMB.

These include:

- <u>Attendance at IUBMB meetings.</u>
    - In addition to myself, there were presentations/ posters from TCD in Seoul.

These are excellent international meetings.

- Wood-Whelan Fellowships

    - These enable upcoming biochemists and molecular biologists visit oversees labs and perform part of their PhD's. They are very valuable and there were no recent applicants from Ireland. The RIA should actively encourage submissions.

- Early-Career Fellowships

    - Once again, these would be very useful and there appear to be very few, if any, applicants from Ireland.

- Funding for meetings related to methodologies or workshops on specific topics.

    - Funding is available but again no Irish applicants.

- Development of new high impact meetings

    - These are designed to be similar to Gordon Conferences and significant funding is available. Ireland, through the RIA, needs to be aware of and very active in availing of such funding.

In Summary, there are multiple funding opportunities available and Ireland is missing opportunities for availing of this funding. I previously highlighted this at meetings when I was on A committee at the RIA. Access to this funding is available to paid up members of the IUBMB. The incoming committee and the RIA should advertise these opportunities to maximize the return form the costs of IUBMB membership for the Academy of Ireland.

## International Mathematical Union General Assembly, Sao Paulo, Brazil, 29-30 July 2018 & the International Congress of Mathematicians, Rio de Janeiro, Brazil, 1-9 August 2018

**Dr Benjamin McKay**
University College Cork

*Ben McKay graduated in mathematics and philosophy at University of Toronto in 1993, and obtained a PhD in mathematics at Duke University in 1999. He is a pure mathematician, working in exterior differential systems and differential geometry. He was a postdoctoral fellow at the Max-Planck-Institute in Bonn and at the University of Utah, and an assistant professor at the University of South Florida. He lecturers at University College Cork. He has held visiting positions at the University of Paris-Orsay, University of Rome Tor Vergata, University of Waterloo, and the University of Nice Sophia Antipolis.*

The IMU (International Mathematical Union) held their General Assembly in Sao Paulo, Brazil, 29-30 July 2018. The key points were:

- The International Mathematical Union asked for support from the adhering organisations (including the Royal Irish Academy) to assist Cote d'Ivoire in its bid to UNESCO to have March 14 declared international π Day. Fifty seven nations celebrate π Day.
- The IMU decided to strip Iran of voting rights, after 8 years of not paying dues. Iran is a class 4 member (i.e. has 4 votes). Russia protested the decision, as Iran is under international embargo, which makes bank transfers complicated. The Iranians continued to vote, in protest at not being allowed to vote, and their votes were accidentally counted.
- Emannuel Macron, President of France, addressed us directly from his plane via video link to ask us to support Paris's bid to host the ICM 2022. Fields medalist and French politician Cedric Villani held the camera and President Macron promised to open the ICM personally. However, the IMU delegates voted to hold the ICM 2022 in St. Petersburg, Russia.

- Concerns were raised over human rights abuses, safety of gay and lesbian participants, and crimes committed by the Russian state at home and abroad. But the Russians promise to spend $9 million USD, while the French only have €3.4 million.
- The IMU delegates voted to thank Germany for its €500 000 per annum support to the IMU.
- The IMU delegates agreed to accept Germany's offer of a permanent headquarters for the IMU at the Weierstrass Institute in Berlin. The IMU has been there on a temporary basis since 2011.
- The IMU delegates voted to continue the Nevanlinna prize for mathematical aspects of information science under a new name. (No specific new name was yet chosen.) Rolf Nevanlinna was a fascist, who supported the Nazi regime by choosing to move to University of Gottingen after Jewish scientists were removed from there, and by joining a panel of Finnish ``patriots'' who created a Finnish volunteer battalion of the SS. The Irish delegation opposed this renaming, on the grounds that the prize should be discontinued, as the purpose of the prize was to allow information science to grow into a serious discipline, with support from mathematics, and this purpose seems to have been achieved, as information science is now larger than mathematics by an order of magnitude.
- The IMU voted in new leadership for all of its committees. Carlos Kenig is the new President.

The IMU held the ICM (International Congress of Mathematicians) in Rio de Janeiro, Brazil, 1-9 August, 2018. The main points were:

- The Fields medals were awarded to Peter Scholze (Germany), Caucher Birkar (UK), Askay Venkatesh (USA) and Alessio Figalli (Switzerland and Italy). Ireland has never had a Fields medal or hired a Fields medalist.
- The IMU held a tribute to Miriam Mirzakani, the Iranian-American mathematician, first female Fields medalist (2014), who died recently. The IMU commissioned paintings in her honour
- Turkish mathematician Ali Nessin (Bilgi Univ.) won the Leelavati prize for mathematical outreach. He and his band of volunteers created a village in the mountains of Turkey in which exceptionally talented secondary school students attend fortnight mathematics enrichment with Turkish and international mathematicians. Nessin is a dissident, frequently arrested. Publicity (such as this award) might deter Turkey's "tough love" government from torturing or murdering him, or destroying the village.
- David Donoho (Stanford) won the Gauss prize for Applied Mathematics, for his work on faster and more accurate algorithms in MRI machines. He gave a lecture, pretending that his audience was a group of politicians, with interspersed remarks to his real audience, explaining how to give a talk to politicians. It would be a great thing to have Donoho speak to Irish or EU politicians. He explained how cancer has ravaged his family, and how difficult it is to give an MRI to a baby while the baby wriggles.
- Constantinos Daskalakis (MIT) won the Nevanlinna prize for research proving (among many other things) that the equilibria of relatively simple economic models cannot be computed with sufficient accuracy to analyse using microeconomic theory.
- Gil Kalai spoke about his mathematical argument (which is still incomplete) to try to demonstrate the impossibility of large-scale quantum computation.

- Hundreds of the top students from the Brazilian Maths Olympiad received medals at the ICM. Brazilian mathematicians and educators run outreach and enrichment programmes for tens of millions of students. Ireland has no national infrastructure for mathematical enrichment beyond standard secondary school classes. Once again, Ireland is behind many developing nations in its scientific infrastructure, particularly in mathematics, pure science, and scientific education.

From the wider point of view of academics in Ireland, who might not be mathematicians, the relevant issues that are raised by the ICM are:

1. Ireland has, as far as I am aware, no mechanism to support research or freedom of speech in developing nations. This could be addressed at EU level by (a) funding a large number of research collaborations specifically between EU researchers and researchers in developing nations, (b) funding for prodemocracy initiatives (for example NDI), and (c) travel support for prominent academics in danger from their governments or from political organisations. The Irish academic community needs to pressure the EU Parliament.

2. Secondary school enrichment programmes, bringing together academics and secondary school students, usually in Saturday afternoon workshops or summer camps, have become more important throughout the world in helping students to go beyond secondary school standard material. There is, as far as I know, no support from the Irish Government for such work. The academic community can pressure the Irish government to fund secondary student travel to universities, and university faculty and student travel to secondary schools, and associated costs with running these programmes, in all academic disciplines. This could include involvement of Irish secondary school students and academics in such programmes in other countries, including the Turkish mathematics village.