



**An Roinn Breisoideachais agus Ardoideachais,
Taighde, Nuálaíochta agus Eolaíochta**
Department of Further and Higher Education,
Research, Innovation and Science

**Department of Further and Higher Education, Research, Innovation and Science Statement
of Strategy submissions from private individuals. (Permission granted to publish)**

Dempsey, Mary	Mary Dempsey, Senior Lecturer, Mechanical Engineering, Vice Dean for EDI, College of Science and Engineering, NUI
Feeney, Angela	Not affiliated
Fitzgerald, Maurice	Not affiliated
Flannery, Darragh Dr.	Dr Darragh Flannery, Lecturer Department of Economics University of Limerick Course Director, MSc in Economics and Policy Analysis
Fraser, Dr Morgan	Not affiliated Our submission was sent on a personal basis by all twelve signatories: Dr. Marius de Leeuw Dr. Morgan Fraser Dr. Neale Gibson Dr. John Goid Dr. Mark Howard Dr. Lewys Jones Dr. Lynette Keeney

	<p>Dr. Jonathan Mackey</p> <p>Dr. Sinéad O'Keeffe</p> <p>Dr. John Regan</p> <p>Dr. Pauline Scanlan</p> <p>Dr. Niels Warburton</p>
Gilligan, Professor Robbie & Brady, Eavan Dr,	Not affiliated
Hanlon, Lorraine	UCD Centre for Space Research
Hickie, Mary	Principal Colaiste Dhulaigh College of Further Education
Irwin, Robert	<u>Not affiliated</u>
Kavanagh, Donncha	Donncha Kavanagh, Full Professor of Information & Organisation, UCD School of Business, University College Dublin
Lang, Mark	School of Physics Centre for Astronomy, National University of Ireland Galway,
Maguire, Anita	Anita R. Maguire, VP Research & Innovation, UCC
Mulligan, Brian	Brian Mulligan, Head of Online Learning Innovation Centre for Online Learning Institute of Technology Sligo
Nic Lochlainn, Sarah	Not affiliated
O' Connor Ph.D. John	Not affiliated
O'Connor, Pat	Professor Pat O'Connor Professor Emeritus Sociology and Social Policy, University of Limerick and Visiting Professor Geary Institute UCD, Ireland
Ohlmeyer, Jane & Wallace, Doireann	SHAPE-ID TCD
Ph.D. Students Society of University College Dublin	Ongolly, Fernandos Mr. Vice-secretary of the UCD Ph.D. Students Society

Powell, Suzanne	Not affiliated
Smith, Des	Not affiliated

Dempsey, Mary, Senior Lecturer, Mechanical Engineering.

Vice Dean for Equality, Diversity and Inclusion, College of Science and

Engineering

NUI Galway

The key to advancing and improving EDI matters aligns with policy. The development of a strong EDI policy with accountability and targets for all HEIs is key to achieving an open, accessible institution for all staff and students (including perspective students) assuring equality of opportunity for all.

The needs of the Further and Higher Education, Research, Innovation and Science sector include;

- Equal access to education for all
 - Students on the boundaries of SUSI eligibility are finding it difficult to maintain themselves. I represent my College on the Financial Aid Fund and it is heart-breaking to read the cases from students who are hungry every day. The SUSI eligibility criteria need to be re-examined.
 - More emphasis on and access for Traveller/Roma/DEIS/Migrants. I am a volunteer on the University of Sanctuary committee and know that the talent pool is out there but we are struggling to fund students from these communities. It is an on-going begging process to find the financial support for these initiatives. Set a target for each HEI to support underrepresented students via scholarships.
 - Make Campus more accessible to students with physical disabilities
- Equality of Opportunity for all

- The gender pay gap remains despite numerous reports etc. The SALI posts are a means of accelerating the number of females at Professorial grade but it will still take decades to reach parity. The data suggests that there is little to no improvement of female representation at Professorial grade with some HEIs not meeting the original targets set. The Department needs punitive KPIs to tackle the ongoing discrimination especially through promotion schemes. The criteria remain biased against women and still favours men.
 - Power struggles are common in HEIs and need to be tackled to avoid hierarchy and potential cases of sexual harassment whilst levelling the playing field so that all voices are heard. An overhaul of grades and salary structures would help remove the wall between Administration, Academics, Researchers and Technical staff.
- Challenges
 - Adjust infrastructure and learning to open HEIs to underrepresented groups (including students and staff with physical disabilities)
 - Eliminate Bullying and Harassment
 - Encourage Performance Reviews
 - Promotion opportunities
 - Removing bias

The current focus is okay. An action plan needs to be developed which tackles the issues over the next few years. Stretch KPIs should be included for HEIs with punitive financial measures in place if not met.

Feeney, Angela

A Chara,

In response to the call for submissions to the Statement of Strategy 2021-2023 please find below my submission which addresses in particular the questions posed within the call "What are the challenges that we need to address and is our current focus adequate to meet those challenges?"

The very recent HEA data provides in-depth insights into the Spatial and Socio-Economic profile of the Higher Education Population and shows that on average, for every ten students from the most affluent areas, there are only five from the most disadvantaged, a ratio of two to one. This important report makes it clear that third level education is not accessible to everyone in our society and that there is a huge challenge ahead to address this. This has consequences for our society as a whole where we find that professions such as medicine, teaching, law and many more are not representative of the population and are perceived as elitist.

Having worked in an IoT for many years, it is no surprise to me that the socio-economic profiles of IoTs most closely matches that of the population as a whole. I completed a PhD on the subject of retention among access students over a five year study period. The findings show that students entering from socio-economically disadvantaged areas perform as well and in fact better than students from more affluent areas in year one. What saddens me is that not enough of these students even get to the door of a third level institution and if they did, as my research has shown, they would fare very well and their future would be so much better.

Trinity has the lowest representation of disadvantaged students yet a lot of attention and indeed funding is given to the TAP scheme, laudable as it is. Yet the IoT and TU sector has been widening participation for decades and successfully integrating students on all degree programmes but struggles to support the ever-increasing number of students they welcome. If targeted funding and investment was given to this sector I am of the view that a further increase in representation could be achieved.

The Department and the Minister have promised that during 2021, work will commence on

the development of the next National Access Plan including new participation targets and that DIS will have a key role to play here and will be vital over the lifetime of the Plan in demonstrating progress and setting ambitions for the future. I welcome this promise and urge the Minister to make it a reality and to support the sector that has been supporting these students from the beginning.

Fitzgerald, Maurice

Question 1. How well do the department's policies meet the needs of Further and Higher Education, Research, Innovation and Science sector and how could they be enhanced.

The Irish education system has been extensively criticised for a litany of failings, but despite all the criticisms down through the decades, with a myriad of consultations and reports into what is wrong, effective action has not been taken.

Further and higher education must yield for those participating in it. There is a tendency in this country to get carried away with the need to educate when jobs remain elusive. We seem to have many thousands of people in education adrift on a litany of courses and getting nowhere in the way of a job and a career. Many students are very disillusioned after years of study when they have no job and are offered more education in lieu of it. The question is whether education is being used to give them something to do, rather than get them going in life with a decent income?

Education has become somewhat of an end-in-itself in this country. It is seen as a tool for social inclusion, rather than a method of getting people jobs. Social inclusion is all very fine and good, but having students hunched over tables doing academic lessons for years on end without any connection to the workplace is not wise. Education and especially higher education must not become a substitute for the lack of social opportunity to get a

job. Education is being wrongly used as an excuse for why people cannot get jobs. It is used and perverted as a tool to socially exclude people. It is used as a bureaucratic tool in denying people jobs, when others are pulled in the door by the scruff of the neck with no qualifications at all in some cases.

Education is seen as a way out for all our problems, but as we see there are negative consequences in getting carried away with it. Education is seen as the panacea to solve society's problems, but it should be accepted that very large numbers of people remain on the margins of our society in receipt of welfare payments for extensive or life-long periods. It has got to be accepted that economic benefits of investment in education, science and innovation must come to all and not just those with the right connections and associations – having nothing to do with their abilities or acumen.

In developing any education system, we must avoid the rat-race system which this county has been extensively criticised for. We have to look at our overall society and not just science, research, and innovation to make a better society. This country is wreaking of social problems and litigation is rife and crime very high and organized.

As to philosophy:

We are trying to push our society on with theories of education, science and innovation, but as a result have never lived a more hollow existence in terms of social well-being, culture and community spirit. Let's look at where society is going and its philosophy for a change and not get carried away with education as the answer to all our prayers. We are turning into cerebral machines. Our society has gotten too sophisticated for its own good and lacks heart. Voter turnout in this country is very poor, unless coupled with a referendum. What indeed is higher or education, science or innovation doing for anybody in this regard when political apathy is so high and detrimental.

Electronic voting failed to be brought forward as a very efficient and effective way to help us achieve amelioration in our society. This proved that the outcome of such investment in education, science, and innovation could be gravely doubted with such a failure in a very fundamental and critical area. This is an example of where we can seriously question the output of technology and innovation if it is not put to good use. Education, science and innovation seem to be convenient disposable fashions and are not always valued in the long

run or not at all. Is education, science and innovation of solid value or just passing things which yield little only fleeting progress?

Innovation and science seems to be driven to specific sectors in our economy when a much broader view should be taken for balance. Hi-tech this and high tech that. For all it gives society with the education system geared towards it, we have a Irish society crippled with social problems such as alienation, suicide, social exclusion and general division among our people. There seems to be a belief that education can solve any problem and the corporate sector it tends to support.

Adult education in the 90's was the fashion, but again disillusion grew when many who received their parchments went right back on the dole after they left school for the second time. The claim to fame that further education made was not borne out and one must indeed wonder why emphasis on second-chance education was sought. Adult education did not address the fundamental problem of "who you know, not what you know society" which Irish society is profoundly. Adult education seems to be doing more to further educational institutions, than the students who are supposed to be getting benefits out of it – especially those from socially disadvantaged backgrounds.

Education policy should help people to be people with character, not machines geared towards a life of the latest high-tech gadgets or fashions. Ironically, many people need to learn low-tech skills such as manual ability to enter the workplace. They can also be told they

are over-qualified for positions and as a result are out of work. What a disillusionment it must be for them to study for years and get absolutely nowhere.

Many people leave this country and give their talents and skills acquired in this country to other countries which in turn defeat this country in economic competition and make it harder for us. Again, jobs must follow education and ideally go alongside it. There must be enough opportunities for people as they leave the education system and their first jobs must pay enough, rather than them being on low salaries for years or decades. We are still educating for export and losing heavily in the long run. We also need a much wider business model than our seemingly sworn devotion to foreign-direct multinationals who send their profits elsewhere and pay little or no tax in Ireland. These crucial issues are at the heart of improvement for our country. Great seismic changes will be up ahead for us as Britain leaves the EU and attitudes toward investment. Our attitude and focus is far too narrow. We need to widen our business model as much as possible. But also look after our nation's spirit and community interests which have rarely come first.

Question 2. What are the challenges that we need to address and is our current focus adequate to meet those challenges?

We need to ask ourselves despite all the innovation, science and education which has been around for some time now is: why are so many of our people socially excluded and unhappy. Suicide and addiction are rife in our society despite our 'knowledge economy'. (The economy) seems to dominate national life and our 'live-to-work' culture (for those who can get it) is attracting ongoing criticism. We have also engendered a 'live-to-educate' society (in lieu of employment), which should also attract criticism. We cannot seem to get the balance right.

There must be more time for life, family and relationships, rather than a relationship with the economy which destroys many people. We are distracted to a very high level with fashions and trends and are not only alienated from society, but ourselves. Everything has a

consuming feel to it and many of these trends, fashions, and sciences are redundant in no time. Yield and benefits are important in any efforts to promote or fund research, education, or innovation. Looking at the big picture is all important and not our current model of a 'couple of hundred jobs here and there' down the line for graduates of elite third-level institutions and the connected, irrespective of their qualifications or skills.

In conclusion: We must question the value of the education system, innovation and science to generally improve our society, and whether it is just engineering a nation of robots and automatons who have acumen, in lieu of culture, community and a soul. We must ask ourselves whether all this education, science and education is all counterproductive. Are we blinding ourselves to the truth that these disciplines have not made a better society and only serves its own special interests? We need radical change and depart from the current insidious model with its limited remit and retarded social output.

Flannery, Dr. Darragh

**Lecturer Department of Economics University of Limerick Course Director,
MSc in Economics and Policy Analysis**

1: Sustainable Funding Model

The significant reductions in expenditures per student in higher education in recent years is well documented. The outcomes of such changes are reflected in substantially higher academic student-staff ratios with Ireland now having the 2nd worst ratio in the OECD (OECD, 2020). While the introduction of some manner of income contingent loan system now seems politically unfeasible, there are two specific measures which could be within the department's strategic focus that would be beneficial, even in the current funding mechanism. These are...

1.1: To help minimise the variations of funding changes on the student learning experience, a commitment could be made to cap small group classes/tutorials in each institute at 25 students. This is already done at both primary and second level and while there may be infrastructural or other constraints at the moment for this, such a policy should be explored. With 'small' group tutorials holding 40-50 students in many HEIs, the learning and social experience of students could be significantly enhanced with such a reduction. Given the significant increase in the large group/lecture setting for many students, having a more meaningful small group experience could be an appropriate strategic goal for the department on behalf of students.

1.2: Establish a working group to examine the manner in which households that do not qualify for any higher education related financial support are paying for higher education costs. As alluded to below, while there is good coverage in terms of those receiving support in Ireland, there may also be a significant amount of households that rely either on savings or taking loans from commercial banks to fund aspects such as the student contribution charge. If this charge is to stay for the foreseeable future, examining the incidence of private borrowing and/saving access would be useful to enhance policy. For example, the department could explore the introduction of education loan interest relief (similar to a mortgage relief type system) and/or include the first €3,000 spent on higher education charges in the current tax relief scheme.

From the strategic viewpoint, this could be viewed as enabling a more sustainable funding system within its current guise.

2: Equity of Access

While the spread of supports available to students wishing to participate in higher education in Ireland is relatively strong, the depth of these supports is disputed. For example, while a significant proportion of students attending higher education receive some manner of support, the fact that the level of grant received (across adjacent and non-adjacent) has decreased in real terms over the past ten years. The recent review of the grant system announced by the Minister is obviously welcome. In my view, this review must consider the impact of the scheme not just on participation in higher education but also on where you go and what you study. Given the strong lifecycle effects in terms of earnings and employment

that field of study choice may have on an individual, from a strategic and economics point of view, a greater focus on the role of financial aid should be placed on the latter. On the more micro level, consideration should be given to two issues

2.1: Link the amounts available in the grant scheme to annual food inflation.

2.2: Explore a more stepwise approach to the scheme. Previous research (Flannery and Cullinan, 2014 and Cullinan et al, 2013) supports the policy of an adjacent/non-adjacent scheme in Ireland but also suggest a more flexible model with progressively higher payments for those living further away as the current system does not acknowledge that significantly longer travel times have important implications for students in terms of financial cost, as well as for their available time to engage in paid employment, in order to support their studies

3: Equity of Experience

While equity of access has been the main feature of many previous policy reports within the higher education sector, equity in terms of the student experience should also be an explicit strategic consideration for the Department/sector. This could be considered across a range of but I focus on two specific student experiences that may be strategically relevant to the Department going forward.

3.1 Equity in terms of digital experience:

The Covid-19 pandemic forced higher education institutions (HEIs) in Ireland to cancel most face-to-face teaching and deliver classes remotely. While the resumption of 'normal' delivery may be facilitated next year, the acceleration in the use of digital tools to deliver teaching in an online setting may become far more prominent in the years ahead. However, in such an environment, issues of digital divide may foster significant differences in the student experience across the country. Such a divide may be driven by a range of factors, including gaps in access to appropriate equipment, such as a laptop or desktop personal computer (PC), a suitable home environment to learn/study in, or the digital literacy skills required to engage with online learning. Furthermore, differences in the quality of broadband connectivity for students living at home, as opposed to on campus, is likely also an important consideration in this potential divide. Given the catchment areas of many HEIs cover both urban and rural areas, variation in connectivity may impact the type of online/blended model that staff can

deliver, or constrain certain groups of students in fully engaging with online-based content. Recent research has indicated that currently one-in-six students come from areas with poor broadband coverage, with considerable variation across groups. An important implication this is that some HEIs may have to significantly adjust their online delivery methods due to the considerable technological constraints that many students face. In addition, these findings also imply that different groups of students within each HEI may require different offerings, or have different capabilities to access blended/online content. Therefore, as a strategic aim, the department should contemplate the equity of student experience from a digital viewpoint, amongst other considerations.

4: Evidence-based Policy Making

The department has a specific research focus, with an emphasis placed upon rewarding and supporting good research. However, this contrasts somewhat with depth of research carried out to help the evaluation and assess higher education policy in Ireland, relative to other developed countries. While recently, the HEA have started to produce some excellent statistics and data that may help inform policy, I would suggest greater collaboration between the Department and external researchers such as academics in helping to formulate/inform policy as a key strategic aim.

Dr. Marius de Leeuw

Dr. Morgan Fraser

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Dr. John Regan

Dr. Pauline Scanlan

Dr. Niels Warburton

As current holders of Royal Society - Science Foundation Ireland University Research Fellowships, we represent a cohort of early career researchers across Ireland engaged in world-leading fundamental, oriented basic, and applied science.

Many of us were signatories to the open letter earlier this year advocating for the establishment of a dedicated government department for scientific research

We welcome the creation of the new Department of Further and Higher Education, Research, Innovation and Science; and the further opportunity to contribute to this consultation on the future of the research landscape in Ireland.

It is well accepted that scientific research is one of the engines that drives wider economic growth, both via direct innovation, and through the development of a scientifically literate and skilled workforce. Over the past year, the COVID-19 pandemic has reinforced the crucial role that science plays in our lives, through drug development, epidemiological modelling, as well as basic research in genetics, molecular biology and more.

Regrettably, direct government investment in research as a percentage of GNI has fallen by 40% since 2009. In the 2019 DEBI report on R&D expenditure

2. Ireland now lies in the bottom half of the international ranking, and well below the EU average. Increasing national R&D intensity is essential if Ireland is to achieve its goal of building a knowledge-based economy. While SFI does an admirable job of funding research across its legal remit, the restriction to “oriented basic research” limits the areas that can be funded. By its very nature, the outcome of the most basic, fundamental scientific research cannot be accurately predicted. The twentieth century has given us many examples of modern technologies which grew out of basic research where there was *no* preconceived application. For example WiFi arose out of radio astronomy research at CISRO, and now contributes over €2 trillion of value to the global economy each year. Similarly, the World Wide Web emerged from work by particle physicists at CERN. Attempting to divine which areas of basic research are “oriented” towards economic impact or immediate applications will inevitably lead to missed opportunities, and we urge the department to remove such

distinctions and restrictions. As early career researchers, the ongoing support and continuation of schemes such as the IRC Laureate Awards are crucial. In addition we would like to see the SFI ERC support grants reinstated; individual PI-led grants such as these are essential for our scientific research, and as noted in the Innovation 2020 report ³ they help cover a critical gap for funding frontier research in Ireland. Smaller PI-led grants provide an agile and flexible counterpoint to the

1 [http://irishscientists.org/Irish Scientists Open Letter 2020.pdf](http://irishscientists.org/Irish_Scientists_Open_Letter_2020.pdf)

2 <https://enterprise.gov.ie/en/Publications/Publication-files/R-D-Budget-2018-2019.pdf>

3 <https://enterprise.gov.ie/en/Publications/Publication-files/Innovation-2020.pdf>

larger SFI centres, serve as a bridge to independence for early career researchers, and are crucial for attracting and retaining talented researchers. We note that other countries such as the UK provide a strong suite of small (<€1m) PI-led grants, and we would support the development of such an ecosystem in Ireland. In particular, we strongly support increased funding to enable annual calls of the IRC Laureate Programme and similar schemes. The IRC Government of Ireland Postgraduate and Postdoctoral funding schemes are excellent in principle, but are underfunded and have uncompetitive stipend/salary and conditions. We advocate for increased funding for these schemes to bring the remuneration at least up to the level of Irish Universities Association recommendations, and to increase the duration of the postdoctoral fellowship to up to three years. These changes would make the schemes much more attractive for the best international researchers. For postgraduate students, we note that stipends have been unchanged for many years (for example, the IRC studentship stipend was at its current level of €16,000 per annum in 2013). Indexing stipends to inflation would ensure that they remain sufficient to support students. In addition, harmonizing postgraduate stipends across the various national funding agencies (SFI, IRC) would eliminate the current situation where two students in the same research group can be paid differently.

As early career researchers, we are able to bring a unique insight into some of the challenges faced by the scientific community in Ireland. While this letter provides a high level overview of these issues, we are keen to engage further with the Department on both

the detail of these as well as proposed solutions. Ireland has both a rich scientific history, and tremendous future potential. We benefit from a highly educated, young, and globally connected population. However, strong financial support for scientific research, as well as ongoing engagement between government and the scientific community are essential in order to unlock our national potential as a knowledge economy.

Dr. Marius de Leeuw Dr. Morgan Fraser

Dr. Neale Gibson Dr. John Goold

Dr. Mark Howard Dr. Lewys Jones

Dr. Lynette Keeney Dr. Jonathan Mackey

Dr. Sinéad O'Keeffe Dr. John Regan

Dr. Pauline Scanlan Dr. Niels Warburton

(Royal Society - Science Foundation Ireland University Research Fellowship awardees)

Gilligan, Professor Robbie; Brady, Eavan Dr,

There are many issues and groups that need mention in this strategy document. Our interest relates to the experiences of young people and young adults who are, or have been, in the care of the state (foster care, residential care etc.). Currently there are 6,000 children and young people in the care of Tusla. Irish and international evidence suggests that young people in this group may experience difficulty in accessing and pursuing further and higher education and may need special supports to do so. We would therefore urge the Department to include explicit commitment to serving this group in the new Strategy thus taking forward the initial references made to their needs in the Progress Review of the National Access Plan and Priorities to 2021.

While many gaps in evidence remain to be filled in relation to this issue, there is an emerging body of work which is beginning to fill out the picture. We have taken the liberty of submitting for your consideration some work we have undertaken ourselves in this area

(five published peer reviewed journal articles and one report in relation to the educational experiences of this group in Ireland – see links below and attached pdfs).

Further to this submission, we would be happy to meet with the Minister, should he wish, to discuss the specifics of these issues and possible ways to begin to address them.

Hanlon, Lorraine

The space sector is in a sharp growth phase globally. This growth, and the importance of space to Ireland, has been recognised in the Irish National Strategy for Space Enterprise¹.

This strategy, and Irish space investment, is primarily focussed on commercial, higher Technology

Readiness Level activity, and shorter-term returns. None of the main funding agencies (e.g. SFI, SEAI, EPA, IRC) have a mandate to fund space research, apart from outreach funding through the SFI Discover 'ESERO' programme. This severely hampers world-class Irish scientists' and engineers' prospects to fully participate in space research, which is mainly an international and highly collaborative activity that is built around long-term engagement.

This is a missed opportunity for Ireland, where space is of such profound public interest and relevance. The funding that is occasionally secured through national funding agencies is unpredictable, erratic, and short-term, compared to the decade-long timescale needed for the most demanding space missions to be implemented, and the time needed for the highly specialised skills to contribute to these missions to be developed. Fundamental and applied space research is a public good while also providing the seed-corn, knowledge base and talent pool from which commercial opportunities will arise in the longer term. There are approximately 40-50 permanent academic staff in Ireland working in astrophysics, planetary science, space materials, space structure control & dynamics, and related areas. This figure has grown significantly (by roughly a factor of 2) in the last 15 years, mainly driven by the

demand for undergraduate programmes, especially physics with astrophysics degrees. The community is highly research active and has a significant international profile.

Ireland has been a member state of the European Space Agency (ESA) since 1975. The ESA Science programme delivers world-leading astrophysics and planetary missions such as Rosetta and Gaia, which cost from €500M-€1B. The timescale from proposal to launch can be from 10-20 years, depending on the scale and size of the mission. The vast majority of the

~€24.8M (2020 budget) annual contribution of Ireland to ESA, representing 0.5% of the Agency's overall budget, goes to industrial contracts to Irish companies on a juste retour basis.

A 2016 report² by the Department of Jobs, Enterprise and Innovation analysed Ireland's return on investment in ESA for 2010, showing that the direct return on our investment was 3:1. Furthermore, when considering the additional economic activity reported by businesses as arising from their engagement in ESA contracts, the return on investment was 7:1. The economic impact of Ireland's involvement with ESA is therefore extremely positive.

The capability of Irish companies to be funded partners in the missions of the mandatory ESA

Science Programme, to the value of €4.4M per year (2016-2020), is of fundamental importance to many of the ~70 Irish companies operating in the sector. From a national policy perspective, the strong return from our ESA membership, including the mandatory ESA Science programme, is directed preferentially to industry and so the science community does not directly benefit in terms of research funding.

Ireland also participates in the ESA PRODEX programme which is an optional funding instrument used for participation by industry, universities and institutes in some member states, typically those that do not have their own space agency. PRODEX activities may cover any space science experiment or instrument, for example, in the fields of Space Science, Earth Observation, Exploration, and Microgravity. Table 1 shows the budget for the PRODEX

programme in participating member states, as allocated at the ESA Council meeting of 2019³.

The investment in space research by Ireland through PRODEX lags far behind every other ESA

Member State except Greece. Despite the extremely low level of Ireland's PRODEX contribution historically, it has supported space research nationally since the 1980's and this has been a welcome lifeline. However, for most of Ireland's space scientists and engineers, there is no meaningful line of national funding to which they can regularly apply in response to open calls that allows them to contribute at a level commensurate with the demand and capability that now exists in the country.

Ironically, the same community who conceive and propose ambitious space missions as part of international teams, are unable to then contribute themselves due to the low level of subscription to PRODEX and to the limited funding sources for fundamental research nationally. While building Ireland's research reputation globally through high impact publications, and by training the next generation of scientists, engineers and entrepreneurs for space, our contribution is hamstrung by the lack of basic space research funding and the enterprise focus of national space policy. That means that the sector is underperforming relative to the capability and the collaboration with Irish industry suffers. Ultimately that restricts the training of graduates, who provide the workforce needed by this growing sector.

Given the importance and rapid growth of Irish companies involved in space⁴, the significant return to the exchequer of our space activity, the scientific benefit in terms of highly cited journal publications, the very high interest of students in the area and the importance of training employees to meet this sector's growing need, it is crucial to attract and retain high calibre researchers to perform relevant fundamental and applied research in this area. As well as the needed technological innovation to support Irish companies and develop spin-outs, these researchers will train graduates to meet the needs of the sector through PhDs and programmes such as the UCD MSc in Space Science and Technology⁵. It is notable that

astrophysics has a higher proportion of female academics than other areas of physics and this has a positive impact on the recruitment of female students.

PARTICIPATING STATE	PRODEX BUDGET (M€)	PER CAPITA (€)
Austria	8	0.91
Belgium	15	1.30
Czech Republic	11.9	1.12
Denmark	3	0.52
Finland	2.4	0.44
Greece	0.4	0.04
Hungary	8	0.82
Ireland	0.5	0.10
Norway	8	1.51
Poland	4	0.10
Portugal	3	0.29
Switzerland	50	6.25

Table 1: Contributions from ESA Member States to the optional PRODEX programme of ESA. The budget is multi-year (either 3 or 5 years) for all countries. In Ireland's case it is over five years i.e. €100K per year.

A significant increase in investment to ESA's PRODEX programme would allow Ireland to:

- Put research that supports the space sector on a firm footing, securing the production of new research concepts from academia and the generation of ideas and creation of new markets for industry.
- Participate significantly in ESA missions, developing technology for the most ambitious and demanding missions on earth and answering fundamental questions about the Universe.
- Retain the significant, never before achieved, capability in space technology developed in programmes such as Ireland's first satellite EIRSAT-16 and support the growth of Irish

companies operating in the sector. EIRSAT-1 has received support through PRODEX, IRC and SFI, as well as ESA, and without it, the project would not be possible. However, executing such an ambitious project while relying on uncertain funding streams from multiple sources poses a risk and acts as a deterrent to repeating the process. To really capitalise on the huge achievement of this mission, which is a transformative step for Ireland's commercial and research space community, requires long-term and sustained funding to ensure key knowledge and skills are not dissipated.

Beyond growing the PRODEX budget to fund ESA-related research, there is a wider need for an increase in national research funding for fundamental 'blue skies' space-related research.

Recommendations:

- The budget for PRODEX should be significantly increased. The average per capita contribution across the 12 participating countries is €1.10, which would correspond to €5.5M for Ireland. This would support the growth of national capability and sustain teams over the long-term, thereby allowing Irish-based scientists and engineers to participate at a level in the ESA Science Programme comparable to peers in member states with similar-sized communities.
- Ireland should broaden its space engagement from the current enterprise focus to develop a broader-based national space policy and funding mechanisms that provide support across all pillars of the space ecosystem, from fundamental, blue-skies research, to applied research and engineering.
- Funding related to space research, both through PRODEX and national sources, should be under the umbrella and processes of an agency whose primary focus is research.

1 <https://enterprise.gov.ie/en/Publications/Publication-files/National-Space-Strategy-for-Enterprise-2019-2025.pdf>

2 'Economic and Enterprise Impacts from Public Investment in R&D in Ireland' report of DJEI, October 2016

3 Received from Bryan Rodgers of Enterprise Ireland

4 <https://www.enterprise-ireland.com/en/Research-Innovation/Companies/Access-EU-Research-Innovationreports/Space-Industry-Directory/>

5 <https://www.ucd.ie/physics/spacescience/>

6 www.eirsat1.ie

Hickie, Mary,

Principal

Colaiste Dhulaigh College of Further Education

I welcomed the formation of the new department last June, as I have spent much of my working life involved in the development of new programmes and in the management of the emerging FE sector. As we were positioned between second –level and HE, I felt that I was working in the Cinderella of the Irish Education system, not sure where we belonged. I see the formation of this new department, where FE is named in the title as a real positive for the sector. I also welcome the word ‘Innovation’ in the title and it’s that which I want to address here.

As a college Principal of one of the bigger FE colleges, I am well aware of how good all our teachers are at developing the skills, knowledge and competencies of our learners. I would see a shortfall in that we do not always teach our students to be entrepreneurial or of an innovative mindset or encourage them to start their own businesses or how to monetise their talents in creative ways. I am aware that many of them are very creative and entrepreneurial and have started many successful businesses, but I think it may be in spite of us rather than something we are instrumental to developing.

In my own college, we offer many programmes in the creative areas of design, media, animation etc., when students graduate from us, it’s not always easy for them to see the next step. Many of the learners in the FE sector do not have entrepreneurial role models in their families or immediate environment. To meet their needs we have tried to pilot the setup of a

creative enterprise hub, which mentors and supports them. This is a space, which provides them with a co-working opportunity/ maker space/ meeting room/mentoring space and kitchenette, which allows them to network. It also allows them access to the college's teachers and supports if needed.

They can access modular teaching inputs in start your own business planning, marketing, presenting and pitching.

You might well ask why am I responding to this call for submissions.

I am responding because we have piloted this initiative with a limited budget and resources and it's a model which works and needs to be expanded. I am convinced of it's important for Irelands ongoing economic development and is an area which needs to be addressed, developed and supported in the further Education landscape nationally.

The support that an incubation hub can offer is a well-trodden concept in the Higher Education sector but not in Further Education. Is there an identified understanding that only those who have degree level qualifications are capable of being entrepreneurial?

There is a strategic development plan for entrepreneurship education in the Primary and Post –primary sector, which is supported by input from the local LEO's with student enterprise awards etc. There is nothing equivalent in Further Education, yet when we look at the equivalent sector in the US, UK or Europe, FE /Community colleges are vibrant incubators of all kinds of innovation and business start-ups.

While SOLAS commissioned a report on best practice in Entrepreneurship education in the FET sector (November 2016, Martin and Associates), I am not aware of any major developments across the sector as a whole since apart from uncoordinated individual pockets of innovative practices within individual ETBs. .

The purpose of this submission is to make the case for the importance of including and supporting entrepreneurial thinking, enterprise development and incubation hubs in the Further Education sector in your emerging policy formation.

The 'Further Education College of the Future' as envisioned in the new SOLAS strategy is described as 'a beacon of learning in its local community'. Surely part of this vision is that the college engage and develop entrepreneurial learners, develop design thinkers, support local startups and use its expertise, resources and networks in to minimize the challenges for those who want to start a business..

They are ideally poised to work alongside the Local enterprise offices and recruit and engage with Mentors in the community.

The 'FET college of the Future' will have an innovation hub that will develop student enterprises and entrepreneurial talents. There will be annual showcases within and across the ETBs for students to display their talents. These hubs will be well funded from both private and public funds. There will be dragon dens type pitching competition, showcase events with sponsorship, bursaries and seed capital available to enterprises with potential.

Irwin, Robert

The current entry requirement for top grades in six subjects is a real problem. It means students starting degree level courses are well behind where they should be in preparation for their chosen course. Time has been wasted studying subjects which they neither enjoy nor properly understand.

To make it possible for large numbers to pass the six subject hurdle, standards across the board have been changed. Examinations and grading have been adjusted so that a wide range can gain a paper qualification for entry. A result of this is that second level teachers are faced with classrooms full of poor unfortunates who are often incapable of understanding the academic work required; indeed it would appear that worried teachers

have concocted techniques which will get these students through with no real understanding of what they are doing.

By these exam techniques, and a sympathetic grading, appearances are kept up. Students muddle through and unfortunately sometimes even ending up being enrolled for courses for which they are quite unsuited. At the same time competent students who would have enjoyed studying more advanced topics in subjects at which they excel, are denied the opportunity and find themselves sitting there bored in lessons for which they have neither interest nor aptitude.

There is a straightforward solution. We must allow leaving cert students to specialise. They should be taking a maximum of three subjects rather than the wasteful six of the present system. A doubling of time that could well lead to a threefold plus increase in work covered.

Would it not be a delight for academic staff at third level level to look forward to a new year's intake of students well advanced in knowledge and techniques and keen to continue their learning?

Kavanagh, Donncha

Funding

The Cassells Report on the funding of higher education, published in March 2016, emphasized the need for 'urgent reform of the funding landscape. The funding system is simply not fit for purpose'. Yet, that report has been pushed into committees and, almost five years later, there's still little sign of its recommendations being implemented. How to fund higher education (and whether higher education is seen as a public or private good) is probably the biggest issue facing the department.

Elsewhere, I have presented a voucher scheme setting out an alternative funding model, not considered by Cassells. To work, it would probably need coordination and approval and an EU level.

A Higher Education Foresight Exercise

The experience with Covid-19 suggests that we need to consider the long-term future of higher education in Ireland in a comprehensive manner. I would recommend that the Department initiate a national foresight exercise that would set out different scenarios depicting what higher education might look like in 2036. Each scenario would also have a 'backcasting' story narrating how one gets from the current situation in 2021 to the depicted scenario in 2036. Such foresight exercises are often focused on particular sectors – see a sample conducted by the UK government's Futures, Foresight and Horizon Scanning unit – and a number have previously been conducted in Ireland, such as, most famously, the Technology Foresight exercise in 1998, which was instrumental in creating Science Foundation Ireland. Other foresight exercises include the following:

- In 2005, the Border, Midland and Western (BMW) Regional Assembly published a Foresight report.
- In 2005, Teagasc, NUI Maynooth and UCD published *RURAL IRELAND 2025 – Foresight Perspectives*.
- In 2008, Teagasc published its own Foresight report, *Teagasc's Role in Transforming Ireland's Agri-Food Sector and the Wider Bioeconomy - Towards 2030*
- In 2009, the National Economic & Social Development Office (NESDO) led the FuturesIreland project which examined how best to enhance Ireland's ability to innovate and learn.
- In 2016 Teagasc published *Teagasc Technology Foresight 2035*.
- In 2018, the Environmental Research Institute, UCC, and Queen's University, Belfast commenced *Imagining Ireland 2050*, which is due to complete in 2021.

- In 2018, The Citizens' Assembly, which follows a deliberative process not unlike those found in some Foresight exercises, produced a report on How the State can make Ireland a Leader in Tackling Climate Change.
- In 2019, Eirgrid published *Tomorrow's Energy Scenarios Report*.

A 'Trinity Futures Group' appears to have already conducted a foresight exercise for TCD. One should not give too much weight to the press reports on this exercise, not least because these exercises are *not* about predicting the future but are rather about thinking through and anticipating a multiplicity of quite different future scenarios. Nevertheless, the Trinity Futures Group envisages online learning replacing larger lectures (>100 students) as well as the institutionalisation of working and learning from home. That group also anticipates profound consequences for how work, study and learning spaces will be designed, adapted and used.

Moving online

Covid-19 has forced us to question our assumptions about education, but it has also highlighted challenges and potential opportunities. In particular, the experience has raised fundamental questions about the role of the large lecture as the default and most appropriate mode of delivering content to students. While there's perhaps a place for the lecture, it's unlikely to be as central to post-Covid learning when alternative modes of content delivery, initially forced on us, become normalised. Bringing students onto campus to listen to a lecture/monologue in a class of hundreds is unlikely to be acceptable and there will be pressure from various stakeholders to employ alternative, proven methods based on online and blended learning.

Moving some modules to online delivery will raise a range of issues around payment (for module design, delivery and assessment), workload, intellectual property, resourcing, job descriptions and job classifications, responsibilities, etc. Many of these will have to be dealt with by individual institutions, but sectoral level responses may also be appropriate.

Our experience in moving online has been that the biggest pedagogical issue centred on assessment and ensuring the integrity of assessment methods. Experience elsewhere would suggest that proctoring technologies are *not* a satisfactory solution, due to issues around

GDPR, dealing with students with disabilities, the legal basis for proctoring, technology limitations, cost, policing, integrity, and fairness. In addition, companies are offering services to counter proctoring technologies, while if the technology identifies what appears to be cheating, it's very difficult to prove beyond reasonable doubt. Hence, my sense is that the only viable solution is for universities to invest in (a) the digitization of assessment, and (b) an on-campus assessment centres where students will take invigilated, computer-based tests similar to the Driver Theory Test (operated by Prometric). Indeed a big change in third level is likely to be a shift in focus from 'teaching & learning' to 'learning & assessment' as content becomes widely available and assessment becomes increasingly important.

The move to online will also require a comprehensive assessment of the merits of the current faculty categories and the traditional distribution of individual faculty responsibilities between teaching, research and administration.

Our recent – and likely future – experience with online learning has forced us to think more carefully about why we require students on campus. One can detect a move toward 'just-for-you', customised education, facilitated by modularisation and new IT systems, but my own sense is that students attend university not just to learn, but also to meet new people, get new experiences, and make new friends, which means the *social network* is the appropriate unit of analysis rather than the individual learner. A renewed focus on the *cohort* and how cohorts are important in creating friendship networks, is likely to become more important with implications for programme design, assessment, pedagogy and learning outcomes.

Moving to a 1+3 undergraduate structure

The OECD, in its assessment of the NCCA's Review of Senior Cycle, noted that the 'senior cycle is perceived to have a narrow focus, mainly as a filter to third level (higher) education' (p. 23) and that the 'high impact of the current points system in determining students' entry into third-level education generates considerable stress and anxiety levels in students and their families' (p. 28).

In addition;

The impact of the final assessment and the system to access third-level education appear to drive senior cycle education, shaping the decisions of many stakeholders. This impact is such

that any changes made to senior cycle will have limited possibilities to succeed if the current assessment approaches are not reviewed accordingly' (p. 10).

Indeed they could have gone further to argue that the third level has a responsibility to change given its impact on second level education. One cause of anxiety is the large number of options facing second-level students as they transition into third level. In contrast, the University of Melbourne introduced a system in 2008, known as the Melbourne Model, with only 7 undergraduate degrees: Arts, Science, Environment, Biomedicine, Engineering, Commerce and Agriculture. It would be a risky strategy for any one institution to follow that route on its own, so an alternative approach is to develop a 1+3 model at third level.

The general idea would be as follows:

- (a) All programmes would be at least four years in duration
- (b) Existing CAO codes would be retained
- (c) An institution's portfolio of undergraduate programmes would be grouped into, say, 7 baskets (akin to Melbourne's basket).
- (d) Unless it already exists, an additional 'general studies' programme would be added to the basket (and given a CAO code). This programme would have a CAO quota equal to approximately one quarter of the total quota of all programmes in the basket. The CAO quota for other programmes in the basket would be correspondingly and pro-rata reduced.
- (e) All programmes in a basket would take (largely) the same modules in first year.
- (f) Students who join a CAO programme – other than a 'general studies' programme – would be able to continue in that programme in 2nd year;
- (g) The 'general studies' stream would not exist in year two; instead, its quota would be distributed across the other programmes.
- (h) students who wish to transfer to a different stream in year 2 – all of those in the 'general studies' programme plus those who wish to transfer out of their programme – could compete for available places based on first year results (not CAO points).
- (i) Streams from year 2 onwards would be organised into cohorts (roughly 50 per cohort), with each cohort continuing until graduation.

The system would effectively structure undergraduate programmes along a 1+3 model with the first year (stage 1) not unlike the pre-med of old. The benefits of such a system include:

1. It will take pressure off Leaving Certificate students in that they will have two opportunities to select their programme of study in third level. The proposed system allows students to identify their general preference at the CAO stage and then a more specific programme of study at the end of their first year.
2. Students will have much more knowledge about specialisms as well as their own preferences and skills having studied the core subjects in first year and will be able to make a more informed choice about their specialism.
3. The system will counter the phenomenon of an increasing number of specialised degree programmes, driven by an unhelpful level of competition between programmes and institutions as well as by academic performance metrics. These specialist programmes pressurise students to make choices with insufficient knowledge and also typically have an excessively narrow curriculum.
4. The first year can work as a robust filter to ensure that students have mastered the requisite skills to undertake their programme of specialist study. Leaving Certificate performance is not an adequate filtering mechanism because the points race is effectively centred on maximising points rather than achieving mastery in particular skills. For instance, universities teach mathematics modules in first year that largely replicate the Leaving Certificate curriculum, while they invest resources in writing skills because the Leaving Certificate does ensure mastery in basic literacy.

Post-growth

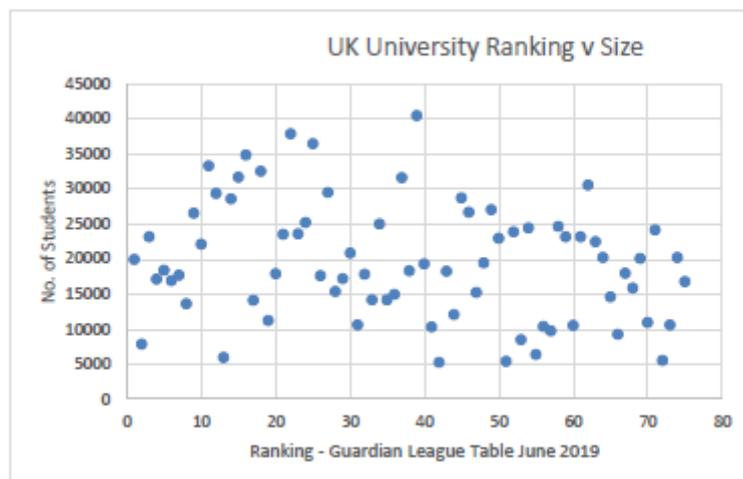
Globalisation and growth are – and have been – strategic priorities for practically every third level institution in the country. However, the climate crisis and alarming levels of inequality mean that the pros and cons of globalisation and growth need to be critically analysed, rather than simply assumed as necessarily good and appropriate objectives. There are clear arguments in favour of a more globalized world, but globalization also creates a range of profound problems, inequalities and injustices. Likewise, growth is a natural phenomenon that usually evokes positive emotions – we like to see things grow – but that doesn't mean we should accept too much growth, or endless growth, or mindless growth. We are now in

situation where pursuing growth is a major systemic problem, which should be recognised and reflected in the Department’s strategy for Higher Education.

National governments, particularly those in the UK and Australia, have consistently reduced their funding of universities, which has pushed universities into a growth/globalisation strategy centred on selling education products to overseas markets, especially in the Far East. But that’s a risky strategy. The coronavirus crisis has made this risk all too real, but one can envisage a range of circumstances – from social unrest to politically inspired restrictions to pandemics – that make such a heavy reliance on overseas students unwise.

Consequently, we need to begin to think through what a post-growth, post-global university might look like.

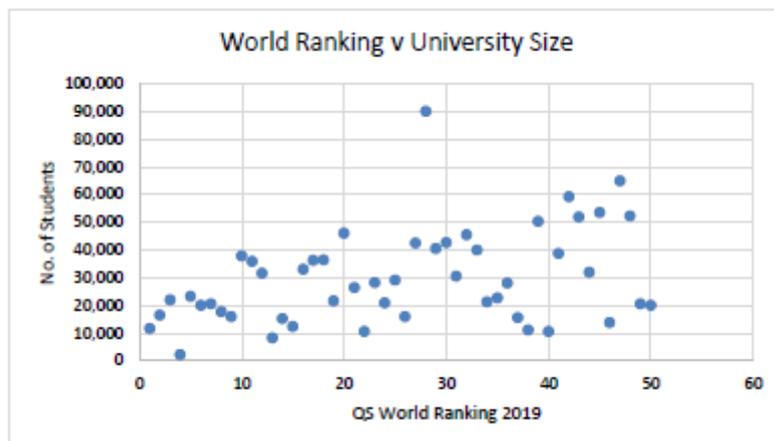
Notwithstanding the desire of most institutions to grow, there’s no compelling evidence that bigger universities are better. Below is a plot of university ranking (based on the Guardian’s university league table) against the total number of students in the university.



Notably, only one of the top 10 universities has more than 25,000 students, while the average size of the top 10 universities is 18,332 students (TCD has 16,425 students).

Moreover, the average size of these 75 universities is 19,621 students, with only 9 universities having more than 30,000 students.

The UK universities might be the most appropriate benchmark, but mapping the top 50 in the QS World University ranking against university size is also illuminating (below):



The average size of the top 10 universities in the world is 18,763, which is almost identical to the average size of the top 10 universities in the UK. The average size of the top 50 universities – most of which are located in cities many times the size of Dublin – is less than 30,000 students.

Growth – especially continuous growth – brings with it a serious risk of over-trading. Over-trading is particularly problematic for universities as (a) they commit to delivering programmes to students over many years; (b) downsizing is very difficult where there is an expectation of permanent employment; (c) it takes a long time to make major changes to a university's portfolio of programmes; (d) universities, which have little experience of over-trading, are likely to address the problems that arise by continuing to grow.

There is a general consensus that too many students are going to university in Ireland and that the particular educational model fostered by the university is not appropriate for many students. Growing each university is not a good way to address this issue.

Lang, Dr. Mark

Thank you for the opportunity to comment as part of this consultation process. In particular, I want to focus on the provision of funding for basic STEM research within the university sector.

The Government has invested significant funding in STEM research at third level over the last two decades. However, since 2012 when Science Foundation Ireland discontinued its funding of basic research, this has been directed almost entirely at applied research. Most advanced economies divide their STEM research funding between basic and applied research.

Basic research is essential if we wish to retain a broad spectrum of expertise in the sector and have the ability to respond in an agile way to new challenges and changed circumstances. If we focus purely on applied research it will damage our ability as a country to innovate.

It is often basic research in areas such as particle physics and astrophysics which attract students to study STEM subjects at third level. Academics who work at the frontiers of knowledge enrich undergraduate education.

The skills which graduate students develop working in basic research projects are often readily transferrable to an industrial setting.

The lack of funding for basic research has established a two-tier research landscape within our universities with basic researchers struggling to maintain quality outputs. In many ways it seems bizarre to appoint basic researchers to academic posts and then deny them the resources with which to do their jobs.

The arguments for basic research have been well articulated in a 2015 open letter signed by 800 Irish scientists.

I recommend that 20 percent of the national research budget be ring-fenced for genuine curiosity-driven basic research. Competitions for such funding should be based solely on the scientific excellence of the proposals. Given the movement of Science Foundation Ireland towards the industrial development space, the Irish Research Council is probably the most suitable agency to manage basic research funding.

¹ <https://www.irishtimes.com/opinion/letters/funding-basic-research-in->

Maguire, Anita

Research and Innovation Input to Statement of Strategy

Developing and growing a research landscape in a country the size of Ireland that positions our researchers to be competitive at a global level is a significant challenge – it is imperative that strategic decisions on investment are appropriately targeted to deliver a positive outcome in the medium to long-term.

The key issue is the envelope of funding invested in research in Ireland, which substantially lags behind our counterparts at European level – if Ireland is to remain competitive, expenditure on R&D needs to increase to 3% of GDP.

Ireland has been remarkably successful in attracting FDI investment – while the original attractor was, to a large extent, based on a low cost manufacturing model, the context has changed significantly and Ireland is no longer able to compete with other locations on this

basis; accordingly, to maintain and grow an FDI presence in Ireland encompassing key sectors such as ICT, biopharma, life sciences, and data analytics, the Irish sites of global companies require significant R&D investment to anchor the more mobile manufacturing activities. Maintaining the credibility of Ireland as a preferred site for FDI R&D investment is entirely dependent on the credibility of our researchers and research system

A healthy research landscape requires the following elements:

- Significant levels of support for research across all disciplines that is allocated competitively on the basis of excellence in the discipline. This is essential to ensure our third level education system is research focused. In addition, it is critical that Ireland's research ecosystem has a broad base so that we can respond with agility to unanticipated disrupters – new technology, pandemics, global warning etc. It is impossible to predict with accuracy what expertise will be needed in the future to exploit these opportunities. Therefore, an underpinning research system, based on excellence, and encompassing all disciplines is essential.
- Strategic investments in targeted areas of research where there is a clear national imperative including support for key industry sectors. The current SFI Research Centres, research institutes such as Tyndall, and other targeted research initiatives are designed to deliver on this objective by actively growing expertise and capability in areas of relevance to key sectors,. This includes the delivery of a pipeline of graduate and PhD researchers to support the R&D needs of our key industry sectors, and the establishment of a dynamic and facilitating environment for academic-industry collaboration.
- In summary, comprehensive investment in investigator -led research across all disciplines provides an essential solid foundation on which the strong targeted strategic pillars or Centres can be constructed that are sufficiently agile to exploit new opportunities. Both are essential elements, and supporting one without the other will not deliver a globally competitive research ecosystem for our country.

In terms of mechanisms for investment, a thriving research system requires the following components:

- Opportunities for investigator-led research across all disciplines on the basis of excellence, supported by robust peer review – these programmes provide the basis for outstanding research as evidenced by the European Research Council (ERC) programmes – Ireland needs a programme to grow the future ERC winners.
- Large scale interdisciplinary and interinstitutional research initiatives focused on key strategic areas including those of economic and industrial importance, but also initiatives that have a broader, public good focus. The latter space has been underdeveloped in Ireland but, with increasing globalisation and resulting societal pressures, a balanced and equitable research portfolio is essential if Ireland is to thrive.
- Continue the strong tradition of innovative programmes to encourage collaboration at the academic industry interface
- Adequate investment in infrastructure is critical – capital investment in buildings, infrastructure, equipment, and highly skilled research support staff to support this infrastructure will be essential if maximum benefit is to be derived from R&D investment. Ireland must have the ambition to attract leading globally mobile researchers to work in our research system and, for this ambition to be realised, an environment that is conducive and attractive to researchers performing at the highest standard is vital.
- Start up packages for new research teams – this is the norm on an international basis and is a crucial investment if world-leading researchers are to be attracted to Ireland

- Programmes to support early career researchers, including PhD students and postdoctoral researchers, across all disciplines
- Mobility awards to maintain international links – especially in the post-Brexit environment
- Supports for researchers in bringing research results with commercial or societal potential to fruition – this is a challenging phase in the research process and needs active nurturing.
- Key underpinning infrastructure that is essential to any world-class research system – Adequate resourcing is needed for IReL, the delivery of the Open Research agenda, and Research Integrity initiatives - both the software/hardware and the human capital to support the researcher community

Finally, to ensure the ongoing development of Ireland’s research ecosystem, and to ensure that the trajectory taken is the optimal path forward, the establishment of a stakeholder forum that brings together researchers, HEIs, funders, industry and policymakers to monitor and advise is urgently required. Since the demise of ICSTI/ACSTI, the absence of such a forum to tease out issues in a safe environment has had an impact.

Mulligan, Brian

A new institution for continuing education.

An independent higher and further education strategy proposal from Brian Mulligan, Head of Online Learning Innovation, Institute of Technology Sligo

Strategy Proposal

To set up a new continuing education institution that is capable of exploiting existing and emerging learning technologies and accreditation practices to rapidly and cost-effectively respond to the training and education needs of employers and lifelong learners.

Rationale

Work practices in industry are changing much faster than they have in the past (largely due to technology development), resulting in a greater demand for continuing education and training of staff (lifelong learning). Existing higher and further education institutions, designed primarily for classroom based instruction, have over time developed quality assurance processes, academic regulations and industrial relations agreements that make it difficult, if not impossible, for them to respond in an agile manner to the needs of employers and lifelong learners. Rather than ask existing institutions to massively increase their capacity to serve this need with unsuitable practices, a new organisation should be created that is capable of exploiting emerging learning technologies and accreditation practices.

Suggested Guiding Principles

The following concepts are included here to illustrate how this institution can be more agile, flexible and cost efficient.

- The institution will focus more on the rapid design and accreditation of programmes more than teaching such programmes.
- The institution will make significant use of experienced industry experts to develop and teach modules (online) on a part-time basis in order to (i) ensure up-to-date knowledge within courses, (ii) reduce delivery costs, and (iii) reduce financial risk to the institution.
- The institution will provide the option of online self-study or self-study with added support on many modules in order to improve flexibility of access and reduce costs to learners.

- The institute will use virtual laboratory technologies and work-based learning experiences to meet practical learning outcomes in a more cost-effective way.
- Programmes (primarily at levels 6, 7 and 8) will be accredited by QQI and the institution will work closely with QQI to ensure that accreditation processes are optimised for innovation and agility.
- Programmes will be designed to integrate external industry standard qualifications and micro-credentials in order to improve employability and lower costs to learners. (The institution will exploit the emerging micro-credential systems and electronic infrastructure now emerging in Europe and elsewhere)
- The institution will provide an RPL (Recognition of Prior Learning) service in order to shorten the pathway to major awards and reduce costs to learners.
- The institution will provide a career advisory service that will help individuals choose suitable programmes. This will include advising them to take external courses of full programmes that may or may not be linked to internal programmes.
- The institution will liaise with existing institutions to enable pathways to qualifications from those institutions.
- The institution will liaise constantly with industry to responsively create new programmes.
- The institution will form partnerships with other organisations with physical campuses (e.g. ETBs, public libraries) to provide community hubs for learners.
- The institution should be set up with a defined limited lifespan (e.g. 10 years) to ensure that it can be wound up if it fails to meet its objectives or itself develops processes that prevent it from being agile and cost-effective.

Nic Lochlainn, Sarah

- Ireland's adoption of the German "dual system" has ameliorated the apprenticeship programme in general, broadening it and enhancing the tripartite relationship between apprentices, employers and training providers.

- Although the working relationship between Solas and employers is based on open communication, trust and collaboration, there is a need to unite the many stakeholders operating in this arena to speak with one voice about the value of apprenticeship and the business case for increasing female participation. A more fluid channel is essential to communicate the message to secondary schools, influencers and potential candidates.

- Gender imbalance in workplaces remains a challenge for women. Diversity policies and awareness need to be strengthened to encourage women into fields which offer decent earnings and career progression potential. “Traditional female” occupations do not tend to have such positive labour market outcomes while “traditional male” occupations can be an intimidating environment for women. Female only professional networks should as WITNI should be supported by government to give female apprentices a voice, to help them to identify and overcome barriers in the workplace.

- A pipeline needs to be developed to promote inclusion. Apprentice places are limited which makes it a competitive landscape. A large proportion of those traditionally served by apprenticeship have achieved a level 3 or 4 qualification. Most employers require candidates to have a level 5 qualification. More employers will have to be brought on board to create broadened opportunities and a pathway to apprenticeship will need to be charted from level 4 to level 6 to include traineeship, pre-apprenticeship and Post-Leaving Certificate (PLC) courses in order to upskill candidates. The availability of funding for candidates at this stage needs to be reviewed.

- Traineeship has not met its targets for the past three years and Solas is unlikely to meet them in 2019. It was originally designed as a social inclusion tool to transition people from long-term unemployment. Ireland has now reached full

employment and traineeship could take on the function of a stepping stone to apprenticeship. At present only social welfare recipients are entitled to funding while completing a traineeship. Trainees would need to have access to a stipend or a student grant.

- A dedicated female promotion unit within Solas would encourage women to choose apprenticeship. Numerous successful case studies have been cited in the literature review of dedicated units that promote a particular career option to women. Positive labour market outcomes from these units are very high. Enterprise Ireland's Female Entrepreneurship Unit has learnings that would be easily transferable to a Female Apprenticeship Unit. It would be within the remit of this unit to study the body of international literature on successful strategies to attract women into male-dominated industries and draw up a recruitment programme with a long-term view that would be based on SMART objectives (specific, measurable, achievable, realistic and time bound).

- Finally, the author observed that most stakeholders were keen to participate in a study of this type and perhaps DES should commission a more generously resourced study than this one. In general, stakeholders felt that the apprenticeship information campaign is fragmented and a centralised approach with a long-term view is needed. One employer expressed frustration that despite his engagement in numerous promotional activities and inspiring enthusiasm among females by encouraging his female apprentices to become ambassadors, he had no female applicants for this year's intake of apprentices. This study was inadequate to address these frustrations, but a government sponsored study with a wider scope and remit could harness the existing goodwill into a broader study with a long-term strategy, in the understanding that positive outcomes may not be discernible in the short term.

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O'Connor, John PhD

I welcome the opportunity to offer comment on the inaugural statement of strategy to be published by DFHERIS. The breadth of responsibilities that the new Department is charged with administering and the many challenges and opportunities facing post school education, training, research and innovation, will require strong leadership and a commitment to delivering and sustaining the highest quality of educational and research related services to its broad constituency. As a new Department there is an opportunity to set out the expectation for how complex and interconnected policy problems are to be tackled. I suggest that key principles underpinning the policy making work of the Department, including the policy advice it offers to Ministers and to Government, will include transparency, collaboration and evidence-informed. This submission concentrates on the last of these principles, evidence informed policy, though it is clear that the effective use of evidence for decision making typically makes use of productive collaborations while also rendering decision making more transparent and accountable.

The systematic generation, mediation and use of data and research can lead to better policymaking and policy outcomes and it also strengthens democratic accountability and promotes public confidence and trust in public administration.

The making of high level policy in Education has been unduly influenced by interests other than objective, timely and reliable evidence and research¹. Education policy has lagged other fields of public policy, which have built capacity and infrastructure for systematically bringing data and research into policy. Some government Departments now claim to 'follow the science'. Reasons advanced for the relatively poor performance of education policy to be

evidence informed is that decision makers have not been able to draw on a ready supply policy-relevant knowledge (supply problem); they have not had the capacity or institutional drivers to make use of evidence that is available (demand problem); they have not had access to a systematic mechanism to clear or broker the huge volume of data and research that is generated (mediation problem)².

It is also apparent that education involves interests, values, and strong tradition. Education policymaking has always had a strong political dimension. Committing to better use of science for policy does not imply an embracing of more technocrat approach, but instead charts a course towards building capacity for research informed policy and having done so for policymakers to strike the right balance between research, evidence, and the legitimate interests of stakeholders. Educational research ought not to be 'on top' of policy neither should it be 'on tap' for political interests.

Consistent with government policy, the new Department should set out how it is going to 'ensure that they are making best use of scientific evidence in the execution of their mission and address gaps where they arise.'³

The statement of strategy should go further and set out how it intends to give effect to the current programme for government commitment that the Department move to 'establish a new Education Research and Policy Section within the Department, tasked with ensuring that educational policy development in Ireland is informed by a strong evidence base, is outcomes focused, and cognisant of best international practices'.⁴

This structural innovation within the Department would be a statement of intent. Education and Ministries of Education, the world over have found that the move towards making better use of available policy relevant research, tends to be incremental, first steps matter and new structures will need to build up a track record. Further ambition could follow, a policy statement on how the Department will source, synthesis and use available data and research studies. It could go further and consider the value of setting out the kind of research questions that it would like to see tackled by the wider educational research community, particularly publicly funded educational research. Such collaboration would need to be mindful of the

academic freedom of Universities but also recognise that educational researchers are well inclined to add value to policy formation, evaluation, and critique. There are examples in Scotland⁵ and Wales⁶ where more systematic and strategic relationship between education policy and educational research are underway. Some jurisdictions have gone further still with the establishment of new institutions to act as brokers, synthesising educational research so that it is more accessible, timely and usable for policymakers⁷.

First things first however, the Department should commit to enhancing the organisational capacity of the Department to make better use of research, in line with the programme for government.

The new Department finds itself situated at an opportune nexus between policy and research. Having responsibility for setting the policy framework for the development of further and higher education and for shaping the national agenda for public research including educational research. The Department seems perfectly well placed lead by example and become a beacon for research informed public policy.

¹ See for Example [Cromien \(2000\)](#); [DPER \(2012\)](#) and [Eurydice \(2017\)](#)

² For detailed consideration of these causes see work undertaken by the [OECD Centre for Educational Research and Innovation](#)

³DETE Innovation 2020 p.46 [Innovation-2020.pdf \(enterprise.gov.ie\)](#)

⁴ Programme for Government: Our Shared Future (2020) p.95 [94092_50f892b9-a93e-43fc-81d1-778ff9954d9f.pdf](#)

⁵ See A Research Strategy for Scottish Education <https://www.gov.scot/publications/research-strategy-scottish-education/>

⁶The current work on a National Strategy for Educational research and Inquiry <https://hwb.gov.wales/professional-development/national-professional-enquiry-project/national-strategy-for-educational-research-and-enquiry-nserc>

⁷ See the US Department of Education [What Works Clearinghouse](#) or the [What Works Network](#) established by the UK Government.

O'Connor, Professor Pat

**Professor Emeritus Sociology and Social Policy, University of Limerick and
Visiting Professor Geary Institute UCD, Ireland**

Introduction

I will focus on gender inequality in higher education. There have been a number of initiatives in this area since 2014 (O'Connor and Irvine, 2020) but progress is slow. I refer briefly to some of the problems before specifically addressing policy, governance, funding and challenges.

The Problem

Women are under-represented in leadership positions in higher education. HEA figures (2020) show that although women make up 45 per cent of the academic core funded staff in universities, they make up only 26 per cent of those at full professorial level. In the hierarchical context of higher education, this means that women, because they are not at full professorial level, are excluded from key decision-making fora, with recognised consequences for such decision making. There is evidence internationally that assumptions that the under-representation of women in senior positions reflects male excellence and/or women's choices are problematic (e.g. Brower and James, 2020).

The first woman President of an Irish public university was appointed this year (on an interim basis for a maximum of 18 months)- with a second just appointed to the new TU Munster. Two of the original seven university Governing Authorities and Executive Management structures do not yet have 40 per cent gender representation (HEA, 2020). A number have not appointed a full time Vice President Equality as a member of Executive Management to drive forward a gender equality agenda (as recommended by HEA, 2016).

There is evidence that gender inequality is present in higher educational institutions (HEIs). Responses to a national online survey of c.4800 staff found that the majority believed that gender inequality existed in HEIs. Men were much less likely than women to see it as existing or to see it as extremely important: with obvious consequences since the majority

of those in senior positions are men. Both men and women mentioned a “macho misogynistic culture”, a “boys club”, reflecting “attitudes of the alpha male” and said that “residual sexist attitudes were rife throughout the system.” This culture was seen as “often masked by the success of a small number of very accomplished women” (HEA, 2016).

It was recommended that for all line management positions, including the President, that: ‘a requirement for appointment will be demonstrable experience of leadership in advancing gender equality’ (HEA, 2016: 47). This is particularly important in a context where Presidential appointments are for 10 years so that if gender competence does not exist, it is extremely difficult to get any traction at organisational level for long periods.

There has been an effective prioritisation of research for promotion and recruitment (particularly numbers of peer reviewed journal articles). This has been at the expense of undergraduate teaching and pastoral care, which are seen as low status and are disproportionately assigned to women. This overweening focus on research in HEIs raises fundamental questions about the nature and purpose of publicly funded higher education.

Gender based violence and harassment is now seen as characteristic of HEIs reflecting amongst other things, its hierarchical dependency creating structures, weak Human Resource departments, as well as an organisational leadership which is not aware of or willing to tackle the issue. The Minister’s actions on the sexual harassment agenda are to be welcomed. However, it is important to recognise that this problem reflects HEIs structure and culture.

Policy level

The National Strategy for Higher Education to 2030 (DES, 2011) made no reference to gender. The assumption seemed to be that HEIs are gender neutral. They are not.

The Expert National Review of Gender Equality in Higher Educational Institutions (HEA, 2016) made a number of policy recommendations specifically directed at the department, including the recommendation that ‘gender equality will be recognised as a national priority and key system objective in the HE system performance framework (HEA, 2016: 93).

Recommendations as regards the department ensuring that 'all new educational policies and reports include the gender dimension and are gender aware' (HEA, 2016:94) appear to have been largely ignored to date.

Governance

I note the Minister's recent appointment of six women to Governing Authorities in UCC, Maynooth and Trinity College Dublin in an attempt to promote gender balance. That is to be welcomed. Recommendations as regards 'ensuring the gender balance in the membership of key decision making bodies' appear to have been largely ignored to date (HEA, 2016: 94).

Given the increasing centralisation of power in the President, and the 10year duration of the appointment, the absence of gender competent women at this level has been particularly significant. The collusion of Governing Authorities in appointing men who were at or near retirement when appointed is also worrying.

The appointment of women to Executive Committees (and often to less strategically important roles in them) has varied substantially since 2016 (O'Connor and Irvine 2020). Again, this reflects the failure to take the issue of gender equality seriously.

Funding

Given the importance to HEIs of state funding, the parent department is in an important position to drive change through for example, tying funding to the achievement of certain gender objectives (HEA 2016; Task Force Report, 2018).

There is international evidence that women academic staff have borne the brunt of COVID. The allocation of funding to relieve women of undergraduate course administration and pastoral care tasks (important activities but ones that cut no ice in terms of promotion and which are disproportionately allocated to women) has not even been considered. On the other hand, E47 million was allocated to research to offset the effects of COVID. A gender enhancement fund of E300,000 was allocated between all HEIs: the different scale of the funding available is striking.

The net effect of COVID then is that it is likely to increase the purportedly gender-neutral gap and to further increase the dominance of men in senior positions in HEIs and to perpetuate gendered culture, procedures, criteria and practices.

Challenges

Gender equality is most likely to be successfully tackled if action is taken at the state (macro) level as well as at the HEI level (meso) and the situational (micro) level. The pace of change in Trinity College Dublin since 2013 has indicated what can be done as regards the proportion of women at full professorial level (O'Connor and Irvine, 2020).

Many HEIs have simply not prioritised gender equality. Progress is not linear and regression can and has occurred. The fact that the cascade model was not implemented at the critical senior lecturer level (Task Force Report 2018) showed a clear lack of commitment to increasing the proportion of women in senior positions.

Despite a range of state initiatives since 2014, since only 26 per cent of those at (full) professorial level are women, achieving the professorial quota of 40 per cent by 2024 is challenging (HEA, 2016). The disparities in men's and women's 'chances' of accessing a professorship- and the variation between HEIs in women's but not in men's 'chances' highlights the importance of organisational factors in explaining the under-representation of women in these positions (O'Connor and Irvine, 2020).

Many HEIs are relying entirely on Athena SWAN to promote organisational transformation in terms of gender equality. There is evidence from the UK that it does create a context which makes it easier to raise gender equality issues and that it elicits positive responses from participants, particularly male academics (Graves et al. 2019). However, in the UK neither the existence nor the level of the award (i.e., bronze, silver, or gold) had any impact on the gender pay gap (Amery et al. 2019) nor on the proportion of professorial positions occupied by women (Graves et al. 2019).

Insofar as HEIs in Ireland have attempted to address gender equality, their approach has typically been to 'fix the women' e.g. providing training or mentoring to increase their confidence. Such approaches, although useful to individual women, ignore the structure and culture of HEIs. They are a very convenient way of being seen to do 'something'; but leaving power and privilege (which are predominantly in men's hands in HEIs) intact.

Even in HEIs in the UK which had won an Athena SWAN award, women were less likely than their male counterparts to be familiar with the criteria and processes for promotion; were less likely to see them as evidence based, unbiased and fair; were less likely to have been encouraged to apply for promotion; less likely to be optimistic about their career prospects and less likely to have been encouraged to take up opportunities (although they were more likely to be mentored: reflecting HEIs favouring of ‘fix the women’ rather than ‘fixing the organisation’ approaches).

Conclusion

The new Department offers an important opportunity to recognise the gendered nature of higher education, the differential valuation of various kinds of gendered knowledge and the under-representation of women in leadership positions. It is particularly important that the department ensures that gender equality is recognised as a national priority and ensures through funding and other mechanisms, that HEIs see it as such.

I wish the Minister well in moving this agenda forward in this new department.

I am happy to clarify/develop any of the points made here (contact details on p 1).

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Ohlmeyer, Prof Jane and Wallace, Dr. Doireann

Department of Further and Higher Education, Research, Innovation and Science: Public Consultation on Statement of Strategy 2021 – 2023

Submitted by Professor Jane Ohlmeyer and Dr Doireann Wallace, Trinity College Dublin, informed by evidence from the SHAPE-ID Horizon 2020 project on which Professor Ohlmeyer is Principal Investigator, in collaboration with the Trinity Long Room Hub Arts and Humanities Research Institute.⁸

Executive Summary

Many of the problems Ireland faces today, such as the COVID-19 pandemic, the climate and biodiversity crises, an ageing population and technology development that outpaces laws and social norms are manifestly social and cultural problems that cannot simply be addressed through scientific breakthroughs and technology solutions. The need for interdisciplinary and transdisciplinary research to address these “wicked” problems, and particularly the imperative of greater involvement from Arts, Humanities and Social Sciences (AHSS) disciplines and societal stakeholders, is now widely acknowledged and indeed increasingly underpins national and international policy priorities, including Ireland’s.

With its strong science and innovation base, world class reputation in the Arts and Humanities and long tradition of community engagement, there are significant opportunities for Ireland to build on its strengths and become a key player in realising a more just and prosperous future for all Europeans through robust intersectoral partnerships and human-centred research and innovation. This requires **long-term strategic commitment to building capacity for interdisciplinary and transdisciplinary research that adequately integrates the AHSS.**

In this submission we present two recommendations informed by evidence from the Irish-led European Commission funded project SHAPE-ID: Shaping Interdisciplinary Practices in Europe, which aims to improve pathways to AHSS integration in European research and innovation.⁹ SHAPE-ID has

⁸ With contributions and feedback from Professor Jennifer Edmond, Dr Giovanna Lima de Moura Rocha, Professor Eve Patten and Dr Caitriona Curtis, Trinity Long Room Hub.

⁹ SHAPE-ID has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No. 822705. See <https://www.shapeid.eu>.

found that **long-term cultural change within both the education and research and innovation systems is** needed to build a robust culture of interdisciplinary and transdisciplinary research, and that **national policy and funding has a key role in capacity building**. The new Department, bringing together the portfolios for further and higher education and research, innovation, and science, has a unique opportunity to address the challenge from both perspectives at once by committing to the following:

1. [Build capacity for interdisciplinary and transdisciplinary research with the AHSS within higher and further education institutions](#)
2. [Enable transformative AHSS leadership and substantial participation in mission-driven interdisciplinary and transdisciplinary research](#)

Below we present context and evidence for why this should be a priority in the Department's next Statement of Strategy, and further detail on what implementing these recommendations entails.

Sustainable Development Goals, Horizon Europe and challenge-led research and innovation: an opportunity for Ireland

Innovation 2020, Ireland's most recent Strategy for Research and Development, Science and Technology,¹⁰ underlined Ireland's commitment to the UN Sustainable Development Goals and Agenda 2030¹¹ and explicitly acknowledged that the complexity of societal challenges necessitates the involvement of AHSS researchers alongside Science, Technology, Engineering and Mathematics (STEM) disciplines and societal stakeholders. In particular, the strategy highlights the need for "targeted initiatives of different scales [...] to cultivate and grow quality interdisciplinary research that can deliver optimal impact". It outlines ambitious targets for the drawdown of Horizon 2020 funding, commits to establishing a new frontier research funding programme and highlights the role of challenge-led research in stimulating solutions-oriented collaboration between higher education institutions, enterprise and the public sector.¹² Developments in Horizon Europe place even greater emphasis on collaborative approaches to solving so-called "wicked problems" like climate change and cancer, through the mission-oriented research and innovation paradigm which recognises the need for crossdisciplinary, cross-sectoral and cross-actor involvement.¹³ The recent OECD report *Addressing Societal Challenges Using Transdisciplinary Research* similarly foregrounds a need for multi-stakeholder and AHSS involvement, noting that "[in] drawing on the breadth of science and non-scientific knowledge domains such as local and traditional knowledge, and cultural norms and values, [transdisciplinary research] aims to supplement and transform scientific insights for the good of society."¹⁴

¹⁰ <https://enterprise.gov.ie/en/Publications/Publication-files/Innovation-2020.pdf>

¹¹ <https://sustainabledevelopment.un.org/post2015/transformingourworld>

¹² <https://www.gov.ie/en/publication/7287b-innovation-2020/>

¹³ https://ec.europa.eu/info/sites/info/files/mazzucato_report_2018.pdf

¹⁴ <https://www.oecd-ilibrary.org/docserver/0ca0ca45->

Why is increasing AHSS leadership and participation a priority?

Many of the problems Ireland faces today, such as the COVID-19 pandemic, the climate and biodiversity crises, an ageing population and technology development that outpaces laws and social norms are manifestly social and cultural problems that cannot simply be addressed through scientific breakthroughs and technology solutions. The AHSS put human lives, identities, society, culture, and economy at the centre of research and innovation; they emphasise the importance of ethics and experiences, past and present; and they recognise emotion as a motivating factor, crucial to achieving sustainable progress. Furthermore, they provide a check on the biases and blind spots of STEM interpretations of societal challenges and can broaden the focus of research and innovation efforts to address how communities and societies can adapt to change. Enabling this requires a widespread

cultural change in the science system, from how policy is made to how science is funded, how researchers are trained and how their careers are evaluated by universities and funders alike.

Lack of established pathways and lack of adequate support for AHSS integration with STEM disciplines and societal stakeholders has hindered our capacity as a society to address our main societal challenges. It is critical that the involvement of those who deeply study individuals, societies and cultures, as well those affected by societal challenges and the solutions presented to address them, be increased, in order to develop sustainable solutions sensitive to context, beliefs, values, interpretations, and history. **With the current crises of democracy and loss of trust in expertise in so many countries, there are significant risks associated with top-down technology development that does not involve citizens and other societal actors as stakeholders in addressing the challenges we face. Building capacity for interdisciplinary and transdisciplinary research that includes the AHSS can help address these problems of trust and participation and build a more just and inclusive science culture.**

Recommendations to the Department¹⁵

1. Build capacity for interdisciplinary and transdisciplinary research with the AHSS within higher and further education institutions

[en.pdf?expires=1607526965&id=id&accname=guest&checksum=OFF9BA235A838379335FA4AF7192F08A](#), p.9

¹⁵ These recommendations are drawn from SHAPE-ID's extensive review of academic and policy literature on understandings and factors for success and failure for inter- and transdisciplinary research, a survey with inter- and transdisciplinary researchers and a series of workshops with experts across Europe. Further details are presented in the first SHAPE-ID policy brief (Vienni Baptista et al., 2020), available at <https://zenodo.org/record/3824954>

To build a culture of innovative inter- and transdisciplinary research in Ireland, long-term commitment to culture change and capacity building within our education system is needed. This can be achieved by:

- Supporting and incentivising higher education institutions to **de-risk inter- and transdisciplinary research careers, integrate inter- and transdisciplinarity into education and researcher training** at all levels (undergraduate, graduate, postgraduate and postdoctoral), and offer **training for faculty in managing inter- and transdisciplinary research projects, writing and reviewing proposals for funding and evaluating the impact** of inter- and transdisciplinarity.
- Ensuring appropriate funding for initiatives to **encourage higher education institutions to develop inter- and transdisciplinary educational programmes and modules at undergraduate and postgraduate level and to develop partnerships in civil society and with industry**. In particular, such measures should increase student exposure to methods across AHSS and STEM disciplines and to the perspectives of partners in enterprise and civil society.

This can lead to more and better inter- and transdisciplinary scholarship due to increased opportunities to pursue inter- and transdisciplinary careers, better cross-disciplinary literacy on the part of students and better links between educational institutions and communities. Together these outcomes will help realise the civic mission of the higher education sector, driving socially responsible innovation and producing graduates equipped to tackle complex and sensitive societal challenges in multi-stakeholder teams across many employment sectors.

2. Enable transformative AHSS leadership and substantial participation in mission-driven interdisciplinary and transdisciplinary research

Challenge-led research themes and questions require that disciplines and sectors come together to address the major challenges of our time in a way none could do alone. Increasing funding for such calls at national level can help improve Ireland's capacity to participate in challenge- and mission-driven research and innovation programmes at European level, thus increasing the potential drawdown of Horizon Europe funding. Significant efforts are needed to ensure substantive and meaningful AHSS contributions are embedded in such programmes at national level. In the Irish context, there are already some excellent programmes that can be further supported to increase capacity for AHSS leadership in inter- and transdisciplinary research addressing societal challenges.

- To build AHSS leadership capacity, the Irish government should **commit to increasing funding for the Irish Research Council to grow innovative world-leading funding programmes such as COALESCE and Creative Connections**. Seed funding and networking grants to build collaborations across disciplines and sectors are also needed and are a relatively low-cost way of kick-starting inter- and transdisciplinary collaboration.
- To ensure successful programmes with meaningful roles for AHSS and societal stakeholders, policymakers and funders should **involve experts in inter- and transdisciplinarity and experts from across the spectrum of AHSS disciplines in defining, designing, and evaluating inter- and transdisciplinary research** funding calls. Funding programmes need also to acknowledge the additional work that goes into building inter- and transdisciplinary collaborations, making

available appropriate resources to develop collaborative research and build shared understanding within funded projects.

- To ensure a strong foundation for inter- and transdisciplinary research, **increased investment is also needed in the discipline-based basic research out of which collaborations often emerge organically.**¹⁶ Building inter- or transdisciplinary collaborations requires that partners can trust and respect each other's unique disciplinary expertise and basic research funding is essential enabler of the competence and confidence needed to undertake inter- and transdisciplinary research.

Ph.D. student's society of University College Dublin

Mr. Fernandos Ongolly Vice-secretary

The UCD Ph.D. society is a professional group of all Ph.D. students currently enrolled at UCD which is led by a six-member committee to discuss issues of UCD Ph.D. students in consultation with the students. As part of our contribution to reforms in higher learning, we put across the following ideas that came from our members' suggestions:

1. There is no clear policy that guides the Ph.D. stipend and the pay for teaching, tutoring, demonstration, and other duties done by Ph.D. students in our Universities. We are concerned that as much as Ph.D. students engage in professional research that contributes to the research and development of this nation, most of them are paid stipends very far below the minimum wage due to the lack of clear guidelines that regulate stipends. Most Ph.D. students are adults and have families that cannot be sustained with the stipends that are paid them alone. We are also concerned that as some universities do not pay Ph.D. students for teaching and demonstration, many students work without pay in our universities since the system fails to acknowledge a Ph.D. student as a 'Researcher/Tutor', and hence engaging in work. We therefore propose:

- a. A clear policy that sets standard Ph.D. stipends above the minimum wage, which also

¹⁶ <https://www.nature.com/articles/palcomms201636>

enables a nominal standard of life for the researcher, given the current economic scenario,

b. A clear policy that guides remuneration of Ph.D. students for the work done in classes and research process, as well as recognising Ph.D. students as workers of our research and learning institutions.

2. As students, we are also concerned about the completion of our research work. As many of us may be funded until the end of our Ph.D. programs, we are aware of other students who could not complete their research due to depletion of funds or the project that funds their research expires. We therefore propose the following:

a. More research funding, especially for international students who may not have another source of funding their research locally, should be introduced. This would promote diversity in our institutions of higher learning and research.

b. There should be a cushioning mechanism in place for students whose project funding expires prior to the 4 years of their doctoral research, such as fee remissions and top-up stipends to cover for the remaining period of their Ph.D.

c. School fees for international students is also prohibitively high, which introduces a barrier to entry to excellent researchers from around the world, who would have contributed greatly to the research and development in this country. We propose more funding to also cover such cases.

Kind Regards

The Committee

Powell, Suzanne

As you prepare your Statement of Strategy 2021 - 2023, I would like to offer a submission to remind you of the important role that Guidance Counsellors play in meeting your policy aims.

Having a Guidance service that is integrated, impartial and accessible is crucial to your goals of improving social inclusion and in educating and supporting progression to both further and third-level education and employment.

Having an integrated Guidance & Counselling service in further education college is crucial as mechanisms are otherwise not in place to recognise and educate learners on all progression pathways.

Access to qualified Guidance Counsellors in FET improves social inclusion because these professionals empower learners to improve their self-knowledge, appreciate their transferable skills, and provide them with the knowledge necessary to achieve their educational and career goals. While some of these aims can be achieved on a superficial level by a teacher in a Work Experience component, it cannot compare to the emotional support provided in a one to one Guidance intervention.

In my experience, learners who don't achieve are often trying to deal with a lot of emotional baggage. Having access to a Guidance & Counselling service allows learners to get the additional support and mentoring they most desperately need. This results in fewer dropouts. Guidance Counsellors actively promote positive mental health and coping strategies within the college as they recognise that learning is extremely difficult when someone feels threatened or upset.

Guidance Counsellors actively promote lifelong learning and empower learners to develop and take up new skills at any age.

On a practical level Guidance Counsellors support learners to complete application documents and keep learners informed of information talks and key dates. This is key to motivating learners, who do not have that support from home. They facilitate choice, introduce options never before considered, and support learners to make informed decisions about their education and career.

Guidance Counsellors are experienced at working with those who experience social exclusion and barriers to learning. They work with learners to identify their needs, emphasise their strengths and help them to overcome any challenges in a practical way. The influence of a Guidance Counsellor to guide and mentor and encourage learners cannot be underestimated.

I hope you remember to include the important work being done by Guidance Counsellors in FE colleges around the country as being key to meeting your policy aims.

Smith, Des

As a member of a past pupils committee of a school in the NEIC area, we spoke with representatives of the second level students who provided us with the feedback below.

Many students in the NEIC area, will not have information from parents, siblings or their peers on 3rd level courses. It is more difficult, if not impossible, for them to get first-hand knowledge of course content, and their suitability for the course, from their peers or family contacts.

It would be helpful if there was some mechanism where they could get these insights before making their decisions on course applications.

There are a number of ways how this might be done, either by student visits to colleges, being able to sit in on a lecture in a specific course, or by specific materials for these students, prepared and presented by college lecturers and delivered online.

Students moving from 2nd to 3rd level face a number of challenges in common. However, students who have less insight into 3rd level, due to their economic circumstances, face additional challenges, and need to be supported to make this transition.