

DÁIL ÉIREANN

AN COMHCHOISTE UM OIDEACHAS, BREISOIDEACHAS AGUS ÁRDOIDEACHAS, TAIGHDE, NUÁLAÍOCHT AGUS EOLAÍOCHT

JOINT COMMITTEE ON EDUCATION, FURTHER AND HIGHER EDUCATION, RESEARCH, INNOVATION AND SCIENCE

Dé Máirt, 16 Feabhra 2021

Tuesday, 16 February 2021

Tháinig an Comhchoiste le chéile ag 1 p.m.

The Joint Committee met at 1 p.m.

Comhaltaí a bhí i láthair / Members present:

Teachtaí Dála / Deputies	Seanadóirí / Senators
Rose Conway-Walsh,	Malcolm Byrne,*
Jim O'Callaghan,	Aisling Dolan,
Pádraig O'Sullivan,	Eileen Flynn,
Donnchadh Ó Laoghaire,	Rónán Mullen,
Aodhán Ó Ríordáin.	Pauline O'Reilly.

* In éagmais / In the absence of Senator Fiona O'Loughlin.

Teachta / Deputy Paul Kehoe sa Chathaoir / in the Chair.

Future Expansion of Technological Universities: Discussion

Chairman: Members and witnesses are requested to use the mute buttons on their devices when necessary. I am joined by the clerk and assistant clerk. I remind members and witnesses to ensure that their mobile phones are switched off for the duration of this meeting as they interfere with the broadcasting equipment even when in silent mode. I refer to all meetings held from 30 September 2020 to 11 January 2021, inclusive, which were previously agreed in private session. Are they agreed in public session? Agreed.

On behalf of the committee, I welcome: Dr. Joseph Ryan, CEO of the Technological Higher Education Association, THEA; Professor Vincent Cunnane, president of Limerick Institute of Technology and chair of THEA; Mr. Paul Hannigan, president of Letterkenny Institute of Technology; Dr. Patricia Mulcahy, who I know very well and who is president of Institute of Technology Carlow and deputy chair of THEA; and Professor Maggie Cusack, president of Munster Technological University, MTU. Our witnesses are here to discuss the future expansion of the technological universities. I will invite Dr. Ryan to make a brief opening statement, which will be followed by questions from members. Each member will have a six-minute slot to ask questions and for the witnesses to respond. I will ask the relevant member and witness to conclude after six minutes. I accept that this is more difficult to do while we are on Microsoft Teams. As the witnesses are probably aware, the committee will publish the opening statement on its website following the meeting.

Before we begin, I remind members of the long-standing parliamentary practice to the effect that they should not comment on, criticise or make charges against a person outside the Houses of the Oireachtas or an official either by name or in such a way as to make him or her identifiable. The witnesses are giving evidence remotely from a place outside the precincts of Leinster House and as such may not benefit from the same level of immunity from legal proceedings as a witness physically present. Witnesses have already been advised of that and they may think it appropriate to take legal advice on the matter. They are reminded of the long-standing parliamentary practice to the effect that they should not comment on, criticise or make charges against a person or entity by name or in such a way as to make him or her identifiable or otherwise engage in speech that might be regarded as damaging to the good name of a person or entity. Therefore, if their statements are potentially defamatory in respect of an identifiable person or entity, they will be directed by myself to discontinue their remarks. It is imperative that they comply with this direction. I call on Dr. Joseph Ryan to make his opening statement.

Dr. Joseph Ryan: We appreciate this opportunity to discuss the expansion of the technological universities. We will not retrace the recent Covid-19 discussion other than to say that we are working closely with relevant stakeholders to negotiate our way through this in a manner that supports learners and protects our communities. Our desire is to realise some managed and early limited return of identified cohorts. Our institutions have offered their facilities and expertise to support the scaling of the vaccination programme. We are also working with the HSE locally to put in place whatever additional logistical framework is required.

I am pleased to introduce our delegation. We are led by the chair of THEA, Professor Vincent Cunnane. He is joined by the deputy chair, Dr. Patricia Mulcahy; the incoming president of MTU, Professor Maggie Cusack; and Mr. Paul Hannigan, president of Letterkenny Institute of Technology. With the recent commencement of MTU, we anticipate having five technological universities in the coming year.

The pathway to the technological universities, TUs, was set out in the national strategy for higher education. It recommended that a network of TUs should be established within the higher education landscape. Following the enactment of the statute in 2018, THEA worked with stakeholders to craft what has become known as the TU Research Network, TURN, report. It can be argued that this report documents more thoroughly the objects and character of a technological university than does the 2018 Act. It was a strength that the consideration was located within the integrated policy context framed by Project Ireland 2040 and the National Development Plan 2018-2027. These envisaged the role of the TUs in responding to Government priorities and societal challenges through the deepening of the talent pool and driving applied research and innovation. As provided in the TURN report, these strategies highlight the central role of developing digital literacy, skills and expertise across the entire workforce as a prerequisite for adaptation to and mainstreaming of digital technologies across all sectors of the Irish economy.

This committee will soon weigh the economic advice from the European Commission on the Cassells report. Determining a sustainable solution for the future funding of higher education at a level that can reflect the demographic demand and meet the ambitions laid out for the sector remains the major challenge. The TURN report has resulted in an injection of €90 million over three years. Continuing this scale of investment will be required in order to ensure the continuing integration and development of these universities. In a recent Dáil reply, the Minister reaffirmed the centrality of higher education to our progress as a country. All of the options within the Cassells report foresee a significant lift in Exchequer funding. Given the current pandemic and the anticipated consequences for the economy, it is not envisaged that there can be any increase in the student contribution in the foreseeable future. We have consistently advised against the introduction of student loans on grounds of equity and practicality. Central to that argument is the passionate belief that access to higher learning should be available for all who would benefit.

The final leg of the funding stool is the contribution from enterprise through the national training fund. While disbursements from this fund in the 2021 budget have fuelled the July stimulus and the skills package, there remains a sum of €700 million. Utilising a portion of this money to invest in the infrastructure of a TU sector, equipping laboratories and facilitating digital technology would respond to the recommendations within the TURN report and better position a growing sector to compete globally.

The landscape change we are experiencing will necessitate further reform of the funding model. Building on TURN, the most recent THEA pre-budget submission proposed a ten-year research and innovation capacity-building fund. A sum of €5 million was made available in 2019 and again in 2020. The Higher Education Authority, HEA, review of the allocation model recommended that this be increased over time to 5% of the overall recurrent grant funding for the sector. For comparison, the comprehensive university sector receives a research and innovation allocation of 10%. The THEA submission sought a phased increase in this allocation to €40 million in 2023. Committee support would be significant in realising the step change in high quality research concentrations, developed with a particular focus on industry collaboration and innovation.

In this context, it is worth reflecting on the baseline position. In October 2016, the HEA published a financial review of the institutes of technology. The review stated:

The sector has faced significant challenges, with the state grant falling by 34% between 2008 and 2015 while student numbers grew by 24%. This has led to total income per stu-

dent contracting by 25.5% over the same period.

This spoke to an unpromising foundation for the embrace of the scale of change envisaged.

Over the past decade, there has been a dearth of capital investment available from the State coffers. This is not a level playing field. The traditional universities have access to the borrowing framework as provided for in their legislation. We have similar facility, but it has not been enacted. As of 30 September 2019, the borrowings of the seven universities amounted to €741 million, provided predominantly and cost-effectively by the European Investment Bank. On a positive note, the State has a public private partnership programme that is providing for 11 buildings in the TU sector. It cannot be stressed sufficiently how vital these projects are. We ask that these continue to be given priority from the Government to ensure their timely delivery.

Research is identified as the key signifier of the step change demanded of the TUs. Building capacity enabling a transformation of research performance is the prerequisite to positioning the TUs as major engines of innovation and economic growth. This entails developing human capital, facilitating research activity and opportunities for existing staff and implementing a new career development and employment framework. Linking this to a focus on societal challenges of the 21st century consistent with the objectives of Innovation 2020 and its successor, and the Climate Action Plan 2019, is what can be expected of modern and dynamic centres of learning and research. This is consistent with equipping Ireland to compete for funding from Horizon Europe, helping to deliver on the sustainable development goals and leveraging the opportunities that are there, post Brexit.

Our institutions are grounded in their communities. The detailed socioeconomic profile data published by the HEA provides a valuable insight. In the most recent data set, our institutions demonstrate a negative deprivation index score. The HEA states that institutes of technology are effective in providing higher education to the population profile of their regions. Indeed, the overall profile of students enrolled in the sector matches the national population profile more closely than any other set of institutions. It points to the role of the technological sector in support of equity, opportunity and social cohesion.

The sector has been recognised for its close links to further education and for building pathways for progression and the integrated nature of the new department should assist further in this. A goal of the TUs is to facilitate a regional lifelong learning system with seamless transitions and pathways from a range of different starting points, transfer and progression within and between TUs and other higher educational institutions, HEIs, and progression to employment, further learning and participation in society. TUs will become centres of recognised quality and the focus for regional lifelong learning where people can learn at their own pace, anywhere, anytime, without barriers.

We will work closely with legislators, Government and its agencies to identify and agree a sustainable funding model for higher education. We will contribute to the development of legislation to realise what is likely to be the Higher Education Commission. Related to this is the consideration to be afforded reform of governance which the Minister, Deputy Harris, has signalled as a priority. Equipping our universities with appropriate organisational design and a suitable academic career framework will be essential to fulfilling the ambition invested in TUs and is consistent with the implementation of TU-apposite career structures which is the seventh in the focused recommendations from the TURN report. This technological sector with its links to enterprise, its unique balance between research, pedagogy, and skills, and its regional connectedness will be central to our collective national endeavour to recover from the ravages of

this pandemic. With targeted investment, we can deliver on the Government's resilience and recovery plan.

We highlight and recommend three priority areas for focus. The first is sustainability. To deliver on the recommendations set out in the TURN report, this includes reconfiguring the existing HEA landscape funding arrangements so that a dedicated funding stream is put in place to support TU development and organisation change in management.

The second is solidarity. This sector is cohesive and its institutions are closely integrated into their communities, which is key to broadening access and thereby affording opportunity to all. There is a well-documented ambition for this sector set out in national policy but first, we, as a society, must negotiate a period of recalibration and recovery. With targeted investment, our institutions can be central to this. We can assist the Government to achieve national goals.

Support is the final priority area in order to deliver on the capital investment through schemes such as the public private partnership projects and to afford our institutions access to them borrowing framework. Allied to this, research capacity should be enhanced through increased funding directed at developing researcher human capital in TUs.

Chairman: I thank Dr. Ryan. I will now go to the first questioner, Deputy O'Callaghan. I ask each Deputy or Senator to confirm that they are within the precincts of Leinster House before they start.

Deputy Jim O'Callaghan: I confirm that I am in the precincts of Leinster House. The first thing I want to do is to thank Dr. Ryan and all the other guests for attending. All of us on this committee can agree that when one looks at the 2011 national strategy, the 2018 Act and the 2019 TURN report, we are involved in a significant transformation of higher education in this country. I commend the people before us this afternoon for the role they are playing in transforming higher education.

My own vision for it, and I will ask a couple of questions in respect of it, is that the technological universities will become engines for the transformation not only of innovation in the education system in this country, but also as engines for regional development. I know that point of view is shared by the people at the meeting this afternoon.

I will raise three issues and I do not know who can answer them so I will let our guests decide that. One of the issues that we all hope technological universities will be able to ameliorate is the significant problem in Ireland and Europe when it comes to science, technology, engineering and mathematics, STEM, graduates. There is obviously a significant proportion of STEM graduates who come from the eastern part of the world, including China and India. There is a problem in Europe and Ireland with STEM graduates, particularly when it comes to younger women. How do our guests see the technological universities trying to meet the requirement of society and innovation to grow the number of STEM graduates that we are producing in this country?

Chairman: Would Dr. Ryan like to reply or to direct that question to somebody else?

Dr. Joseph Ryan: I might pass first to our chair and he can lead out, if he does not mind. Others can come in after that. I thank the Deputy for his questions.

Professor Vincent Cunnane: I thank the Deputy. I will say at the start that we hold with his analysis that the sector is heavily involved in the transformation of higher education as it has

been down through the years, but this particular step change is significant in that transformation. We see ourselves as engines of innovation change and, as the Deputy rightly said, regional development, which is close to all our hearts and which we can articulate strongly.

In regard to STEM graduates, that sector is very well represented here today by Dr. Mulcahy and Professor Cusack. The issue of attracting young women into the STEM area is very much to the forefront of what we are trying to do. I will hand over to my colleagues to expand on that.

Dr. Patricia Mulcahy: There has been a huge emphasis on STEM in recent years, supported nationally by the equality, diversity and inclusion, EDI, agenda. We are very excited and enthused by that agenda but it was not the start of efforts in this area. There are a lot of initiatives by our colleagues in the STEM area, including female lecturers, academic staff and others, to promote increased participation in STEM. However, the EDI initiative will help greatly in that effort. The HEA has established a centre of excellence for EDI. All institutions either already have obtained or are in the processing of obtaining Athena SWAN accreditation and will seek to move over time from bronze to silver to gold.

To bring it down a level, my institution was successful some two years ago in getting an institutional Athena SWAN accreditation which laid out a very ambitious gender equality action plan, published on our website, containing more than 60 actions. Importantly, the next step is to drill into departments. We have prioritised four departments, including two in engineering, one in computing and one in humanities. They are all doing their own detailed action plans and looking to achieve the bronze accreditation. It is not so much the badge that is important but more what it signifies. We would expect the three STEM departments to have those applications in, with lots of new initiatives, and the institution is supporting that. This is happening across the institutions; I am offering my institution as one example. Interestingly, the fourth department, humanities, is the one with the flip difficulty, namely, the lack of participation by males in humanities and social studies. There is a large benefit in seeking to redress that imbalance as well. It is a very active programme, we are committing a lot of resources to it and I think it will make a difference in time.

Professor Maggie Cusack: I agree entirely with everything that was said. I have led quite a few Athena SWAN initiatives over the years. It is quite a blunt instrument but it brings about really positive conversations that change the landscape in a positive way. At MTU, I am really keen to have equality, diversity and inclusion at our top table. It is a very important signal to send about how important EDI is for the university. We all have a responsibility to challenge ourselves in every decision we make as to whether we are inadvertently excluding anyone. It is not about any one approach. Rather, it is very much a multipronged approach and it is about continuing to ask ourselves those questions about inclusion and whether there is anything built into our systems that somehow excludes people.

I will give the committee one example. We have just launched, under pillar 3 of the human capital initiative, our iEd Hub initiative in collaboration with the college of medicine and health at University College Cork. We are bringing together bioscience aspects with engineering at MTU to look at innovation and different ways of learning. In my welcome address for the initiative, I specifically made the point that we have more female students in bioscience and that this was an opportunity to be a beacon and really drive change. It is really important that people see examples of women being involved in STEM subjects and having successful careers in the area.

Deputy Jim O'Callaghan: Is my time up?

Chairman: I am afraid it is.

Professor Vincent Cunnane: We will try to make our answers shorter.

Chairman: I have received apologies from Deputies Alan Farrell and Ó Cathasaigh. That will allow more time for members to put their questions and have them answered. I will be able to allow Deputy O’Callaghan back in before the end, if he so wishes.

The next speaker is Deputy Conway-Walsh, followed by Senator Dolan. I ask members to confirm that they are in the precincts of Leinster House.

Deputy Rose Conway-Walsh: The Chairman can probably hear the committee bell ringing in the background, which confirms that I am in the precincts of Leinster House. I thank Dr. Ryan for his presentation and all the witnesses for attending the meeting to discuss this really important subject. I very much welcome THEA’s stance in opposing any increase in fees or the student contribution charge as well as any plans to introduce a student loan system. Its submission states that the sector has faced significant challenges, with the total income per student contracting by 25.5% since 2008. The national strategy for higher education to 2030 was published in 2011, setting out the pathway for the institutes of technology to become technological universities. It seems very much as if the institutes are being asked to do more with less. What has this meant for them in terms of making the transition to technological universities?

We all accept that building research capacity is a prerequisite for the technological universities. Dr. Ryan rightly highlighted that competing for Horizon Europe research funding is a key objective. I completely agree with that. Since 2014, Ireland has drawn down more than €1 billion in research funding under Horizon Europe, €618 million for third level institutions and the rest for private companies. Am I right in saying that less than 10% of that total, or €53.7 million, has gone to institutes of technology and, of that modest amount, almost all of it went to Waterford, Cork and Dublin? To highlight the issue further, the institutes that make up the Connacht-Ulster alliance, namely, Galway-Mayo Institute of Technology, Institute of Technology Sligo and Letterkenny Institute of Technology, have been successful in drawing down only €1.9 million collectively since 2014, which is just under 0.2% of the total funding drawn down by Ireland under Horizon Europe. How do we go about fixing that imbalance?

Finally, how might the expansion of the technological universities change how we provide apprenticeships? Could some of the apprenticeships be awarded with third level qualifications? In Germany, Austria and Switzerland, for example, master craftsman qualifications are offered which provide pathways to higher-level technical qualifications within the relevant professional fields. This allows qualified apprentices, often with work experience, to acquire a higher level of professional skills through a free-standing examination following participation in the courses. Is this an approach the witnesses think could work here? If so, would the technological universities be best placed to support it?

Professor Vincent Cunnane: I will respond first before inviting my colleagues to come in. Dr. Ryan might have some numbers to offer. The Deputy identified several key issues. The first was about having to do more with less. We have got very used to that but it cannot continue. It is no longer sustainable or tenable to go on in this manner. We believe the Government is going to proceed on the basis of what is set out in the Cassells report. That report will be back before the committee, it is hoped, by the end of quarter 2.

A sustainable funding model has not been found for the higher education sector. That is

particularly so in the case of the technological sector. There are differences in the way the overall budget is distributed between the traditional university sector and the technological sector. That budget covers our day-to-day business and everything we do. The money is distributed in a particular way and we do not have enough of it. That has led to particular issues. In regard to transitioning, our laboratories and workshops - the face-to-face side of things - are very poor based on European comparators. There has been no investment in capital equipment on the scientific side of things for many years. Our funding has been augmented in very recent times in respect of the apprenticeship training model. That has had a major impact on the mechanical, electrical and other craft apprentices who are now benefiting from state-of-the-art equipment. Nevertheless, the underfunding year after year has had profound impacts on our equipment base. Has it impacted on the quality of the students? No, we have compensated for that. How much longer can we go on with that? That is the question. I would place systemic and sustainable funding as a top priority for us, irrespective of institutes of technology. In the transition to technological universities it is of paramount importance.

Senator Conway-Walsh rightly referred to the percentage of funding and the higher education research and development, HERD, survey, which covers the technological sector and has a concentration on several research-led institutions. That has traditionally been the case but it is changing significantly. Dr. Ryan might have the figure from the HERD survey - I cannot remember it off the top of my head. The last HERD review noted an increase by approximately 38% in terms of funding, although I may need verification of that figure. It has grown significantly in any event. That is the main point.

There has been a great widening of the research side. Those numbers are on research expenditure. The numbers for contracts won under Horizon 2020 and contracts co-ordinated by our various institutes have grown significantly in recent years. This has arisen in parallel with the technological university activity of growing research. As we have grown our research, we have grown our ability to compete for research funding. We have utilised increased State funding for research to grow our competitiveness on a European basis. It is growing but it is still a problem. We still need to see significant increases in that funding. As Dr. Ryan outlined, the recurrent grant allocation model for distribution of funding to the institutes of technology had no dedicated research funding. This changed only in the past two years and only a small amount - €5 million in total - is for distribution among us to recognise the core activity of research. That has to grow significantly. We have asked for the figure to grow to €40 million in the coming years.

Chairman: I will have to cut you off, Professor Cunnane. Do you have a final comment to make?

Professor Vincent Cunnane: The question was on apprentices. The Deputy rightly identified the progression from traditional apprentices into higher education apprentices. This is what we are embarked upon. The first graduates of this have actually come through in the past year. The advanced electrical qualification went from a craft apprentice to a level 7 qualification. This week Galway-Mayo Institute of Technology is outlining advanced manufacturing from a traditional base and into level 7. There are other examples in Sligo and elsewhere where we have transitioned craft apprentice qualifications into a higher education attainment. It had been an endpoint and there was little activity beyond that. Now, those involved have the ability to go on from level 6 or 7 to level 8 or 9 and PhD. The new apprentice model drives that but it is at the legislative heart of the technological university exercise. My apologies for going on and for not bringing my colleagues in. We have touched on emotive subjects.

Chairman: The next speaker is Senator Aisling Dolan. I ask her to indicate whether she is

in Leinster House.

Senator Aisling Dolan: I am in Leinster House. I welcome Dr. Ryan, Professor Cunnane and the team. We only recently heard from them so it was good to get an update.

I will comment on the opening statements. I welcome that Dr. Ryan mentioned digital skills and increasing expertise in this area. It is important in regional areas, especially for the digital skills divide. Dr. Ryan referred to three elements, specifically sustainability, solidarity and support. The first point relates to sustainability and reconfiguring the funding arrangements. I have engaged to get further information on this in terms of the Cassells report. From what I am aware, the Department officials and the Minister, Deputy Harris, are meeting the European Commission this week and engaging with several stakeholders. They anticipate a final report from the European Commission will issue by the end of quarter 1. The Commission will then present the outcomes to the Minister in quarter 2. These are timelines in respect of the Cassells report.

There is another aspect to sustainability. I was delighted when I saw the reference to Science Foundation Ireland funding for research centres. This relates to 17 higher education institutions and in particular is linked in with institutes of technology. We could see that GMIT is linked in and was getting funding. Limerick Institute of Technology was there with the Science Foundation Ireland Research Centre for Software, known as Lero. It was excellent to see that the funding coming from SFI is also coming through to the institutes of technology. I note Athlone Institute of Technology also benefited from research funding. It is important that our institutes of technology are able to step up.

I take on board the points made about research capacity. Horizon 2020 and Horizon Europe funding are complex. The programmes are seen as the *crème de la crème* and the height of excellence of science throughout Europe. This is about research capacity. In other words, for every member of the research staff, a total of 30% of time is dedicated to research. The idea is that we have strong research offices that are supporting researchers and lecturers to apply for funding.

What is the plan of the Technological Higher Education Association? How is THEA linking in with Enterprise Ireland? Another aspect of this is competitive industry. Some of the funding that comes through Europe is for the partnerships that each of the institutes and technological universities have in place. The institutes are already in a strong position as they have good relationships with industry and companies in their areas.

The last point relates to the societal impact of Horizon Europe funding. Reference was made to solidarity and how the institutes are integrated into the communities. We are already at the Pobal deprivation index for some of these areas. It is important to see that rolled out and I am highly supportive of that in the west.

Professor Vincent Cunnane: Mr. Hannigan may comment on the issue of THEA, the links and our plans on the research side.

Mr. Paul Hannigan: In recent years, THEA has employed someone specifically to look at research and development and engage with the research officers and managers in each of the institutes of technology. We are seeing outcomes now in terms of the improved performance under HERD, as Professor Cunnane outlined. The different collaborations allow us to get involved with bigger partners and this, in turn, allows us to access more funding.

Letterkenny Institute of Technology has been able to avail of INTERREG funding through interactions with the University of Ulster and Queen's University Belfast. This does two things. It allows funding to come into the institute to enable us to develop our own embryonic stage research. It also allows us to engage with more experienced partners and that builds capacity within our institution. That is happening throughout the country. We can see institutions taking on leadership roles in specific programmes. It is a journey we are on. We see it improving in each institution throughout the country. There is no doubt about that.

We also see real opportunities for the future and real prospects in terms of the technological university research network report, what the report saw for us and what is ahead of us as technological universities. We are mindful of what is expected from us. We are also conscious of the pathways that we have already started down and on which we will continue to build. We will see greater integration and interaction over a period.

I will come back to the connectedness point. Senator Dolan mentioned the deprivation index, etc. There is probably a fear among some people that as technological universities emerge, they may move away from their initial focus of dealing with the people in their communities. That is far from where we are. The legislation is clear that we need to be connected to our original mission as well as developing research activity and other activities that are necessary. The point Dr. Ryan made was important. The institutes reflect the populations in which they operate. What we are saying is we are lifting all boats in the context of the programmes we are providing. We are giving everyone the opportunity to step up. That is having a significant impact.

I will go back to the question Deputy Jim O'Callaghan asked about regional development. I had a meeting this morning with the country lead for Tata Consultancy, which is about to take over Pramerica in Letterkenny. Let us consider IDA Ireland employment and the Border region. Approximately 8,500 jobs have been created there, including some 4,000 jobs in Letterkenny. They would not be here if we were not here. We were here before those companies came in. That success has been built up over time. What we need to see is more jobs coming in on the back of that expertise. We hope the technological universities will continue to do that. As we have seen, Sligo has been successful recently in attracting several different companies.

Senator Aisling Dolan: I agree there has to be investment in research infrastructure. I would like to see that the research offices are supporting the teams in gaining access to funding. How the teams are supported in building their research capability is crucial. The people who attract the investment are key. How they will be recruited and retained within the technological university will also be crucial because they will win the funding at international level, including European level.

Chairman: The next speaker is Senator Pauline O'Reilly. Could she confirm she is in the precincts of Leinster House?

Senator Pauline O'Reilly: I am in the precincts of Leinster House. I thank everyone for attending. It is great to see the regional spread of the delegation. It is critical that the institutions make provision in this regard, as outlined very well by Dr. Ryan.

I met Mr. Hannigan previously. It is very clear from all the evidence I have seen that the witnesses' institutions are continuing to serve their communities. For me, one of the clear ways to do this, considering that we are looking to the future, involves climate action. Climate action is one of the key reasons my party went into government but everybody across all parties will agree it represents the future economically and socially for communities. Quite rightly,

there has been a lot of focus on research because more funding streams are required for the institutions, but one of the key ways to stay in touch with areas is through job creation in a very localised way. In order to do all the work we are committed to under the programme for Government, we need a major ramping up of apprenticeships. Where do all the representatives of the third level institutions see their role in that regard? Do the witnesses believe they are adequately supported in that role?

Professor Vincent Cunnane: Does Dr. Mulcahy want to take that one?

Dr. Patricia Mulcahy: In terms of the ramping up of apprenticeships to support-----

Professor Vincent Cunnane: Yes.

Dr. Patricia Mulcahy: We touched on this topic a little earlier. We talked about the traditional craft apprentices, and we also talked about the new apprentices. Certainly in respect of craft apprentices, my institution and, I am sure, all the others feel very well supported. We are currently facing challenges because of the nature of the craft apprenticeship programmes and the off-campus circumstances associated with Covid but we are seeing a very significant increase in craft apprenticeships across a number of areas. In my institution, the number is up by 50% in respect of electrical instrumentation. There are similar increases sector-wide in areas in which we are not necessarily involved but in which others are. I am aware, however, that there is a great deficit. All the institutes are examining it with the HEA to identify short-term and longer-term strategies to address it across the traditional areas. That will require investment. The big bottleneck concerns the actual building rather than the equipment, which has been extremely well supported. It is a matter of the infrastructure itself.

On the public private partnership projects that were talked about, six of the 11 went to tender recently and the next five are due to go to tender. That is right across the country. While they might not all be focused on apprentices, the decanting and the knock-on effect could very well free up space elsewhere to help. That is really important.

We talked about new apprenticeship programmes. These pertain to the computer and ICT, medical technology, insurance, finance, accountancy, logistics and hospitality sectors. In my institution, there is a new apprenticeship programme in geodrilling, for example. There is a lot of movement and focus in this area, but a lot more effort needs to be put in.

Senator Pauline O'Reilly: A couple of comments were made about Athena SWAN. I cannot remember whether Dr. Mulcahy or Professor Cusack mentioned it. It is a blunt instrument. Having served on a governing authority, I believe that despite everything put in place, it really comes down to the individual institution and the work it does. I offer my encouragement. We are keeping an eye on all this, and we are aware that the delegates are doing so also. It is important to see progress.

I have spoken to Mr. Hannigan about consent. This is an issue that everybody is taking very seriously. I thank Mr. Hannigan in this regard. Quite recently, we have seen things in the media, not in respect of Mr. Hannigan's institution but in respect of others. We would like to do anything we can as a committee to support the work in this regard.

Let me return to climate action. We have heard presentations from those involved with education and training boards in which they referred to the need to consider climate and sustainability in respect of every subject. Obviously, this is a different matter but I would be encouraged to hear that climate and sustainability are not just focus points in apprenticeships but

woven through every single course so every single student will be fully equipped to deal with what is the most important issue of our time.

Dr. Patricia Mulcahy: Our strategic plan very much approaches the matter in a very realistic way. We are committed to educating for sustainability, whether it is in engineering or humanities. It is right across the board. Every five years, we have a root-and-branch review of all our programmes. There are certain themes that we want to embed across all curricula. At present, we are going through a programmatic review, which will be completed this year. This is when educating for sustainability will be brought right through all the programmes. We have well-established processes and mechanisms to do that and, indeed, to address other important issues, such as internationalisation and equality, diversity and inclusion. That is what we are doing. I am aware that other institutions are doing the same. One can always have standalone programmes or standalone initiatives but we are really looking for a cultural change. That is the way we are approaching it.

Chairman: Our next speaker is Deputy Ó Ríordáin. Could he confirm that he is in Leinster House?

Deputy Aodhán Ó Ríordáin: I am. I can confirm that my captors are treating me very well here in Leinster House. I thank the witnesses for their presentations. I will keep my comments as brief as possible. Professor Cunnane mentioned a very inspirational discussion on funding, the Cassells report, etc. I was hoping that others will also get an opportunity to touch on that.

What has been learned from Covid in the sector? What has it exposed? There is a temptation for people to say “When we get back to normal” but for many people and many sectors, normal was the problem. Could the delegates speak to what normal was the problem in their sector, what can be learned from it and how we can make sure we do not waste a good crisis?

I am aware that the delegation has already touched on the engagement on equality and ensuring the existence of a student body that is representative of Irish society, including new communities, disadvantaged communities and the Traveller community? Could the witnesses speak to that? Could they refer to gender equality, which is also important? Could they speak about funding, what has been learned from the pandemic, the normal to which we do not want to return, and the issue of inclusivity?

Professor Vincent Cunnane: I thank the Deputy. Perhaps I will ask Professor Cusack to comment just after I say a few words, if that is acceptable. She may comment on funding. She is new in the system so she is used to a better-funded system. Therefore, she may have some parallels to bring into play.

People want to have definitive outcomes from Covid at a point where we are really just living with it. It is a little dangerous to make profound statements on what will happen in the future. There are definitely many learnings. On teaching and learning, the way that we were able to move to an online environment, or to remote emergency teaching, as we have been calling it here, was incredible. It was backed up by good IT systems and we have learned a great deal. We want to capture the very best of that and ensure that the lessons become part of what happens in future.

It has been less than a year since we moved into this space. Students have learned to deal with it, but would they want to do it this way for the long term? The sense of place, student experience and collegiality is missing. We are able to deal with the learning side. We provide

learning environments and we teach. The students get learning outcomes, which we can test. We have adapted everything to that. However, what about the rounding of the individual and the soft skills that industry asks for so much? None of us would say that we have learned from this situation and that its lesson will last for years. We must be careful. I am already hearing rumblings from the Department asking why we need lecture theatres if we have all gone electronic. That is loose talk, but we must think about this issue deeply. It is giving us an opportunity. We have not been able to reflect yet; reflection can only come when we are out of the crisis. We are still in crisis management mode. We want to get back so that our students can complete their necessary face-to-face practice. I have no idea what “normal” is, but we will work out what is best for our students and staff.

Turning to the issue of engagement disadvantage, I have been before this committee a number of times. We do not get praise for what we do on a daily basis. We are access institutions. Consider the report showing the Higher Education Authority, HEA’s statistics on spatial and socioeconomic profiles. This is our job and we do it every day. We provide opportunities to those from non-traditional backgrounds, for example, first generation students, who would benefit from them. We take pride in this. If the evolution of technological universities meant that we had to abandon those student cohorts, none of us would have stepped up to the mark and left people behind in order to get technological university status. Our journey must take everyone with us. I might have been emotional on the issue of funding, but the committee should hear me talk about disadvantage.

I will hand over to Professor Cusack. Mr. Hannigan might wish to contribute as well.

Professor Maggie Cusack: Professor Cunnane threw me the baton by way of funding. No system ever considers that it has sufficient funding. It would be important to have strength in a mixed portfolio of funding. Much of the conversation about funding relates to funding for undergraduates. We have spoken about the challenges for the step change in research. It is important that we work with colleagues, support them and help them to build the scale of the research projects we are leading and for that to become a significant part of our income, as well as the work we do with industry. There is strength in that mixed portfolio as well as benefits for our students in terms of employability.

We have spoken about the climate and the economy. They are often presented as enemies that go head to head. There is an opportunity for us to overturn that notion and, as we address the major climate challenge, ask how we do that in a way that upskills our learners and ensures that they contributing to the economy. That is the challenge for us all.

Professor Cunnane is right, in that we should not waste a good crisis or pandemic. Learning is ongoing. I have been amazed by the challenges that people have faced and what they have been able to do. There has generally been a great deal of positive feedback from our students about how online learning is better for some because, for example, it suits them to go back to asynchronous learning, listen to something again and think about what happened. Professor Cunnane is right about that sense of connection and community that we have worked hard to maintain when we are working virtually. We can come to a point where we will benefit from the best of both and make good use of the space, which was a topic that Professor Cunnane also raised.

Chairman: I thank Professor Cusack. Deputy Pádraig O’Sullivan would be the next questioner, but Senator Flynn is online. She is not on the precincts of Leinster House, though, so she has given me two questions to ask. Since this is her speaking slot, I will ask those questions for

her and hand over to whichever witness is most appropriate to reply. Before I do, though, Professor Cusack spoke about the sense of community and collegiality. Many third level students with whom I chat miss their college communities.

Senator Flynn's first question relates to how the pandemic has had a negative impact on the learning and leaving certificate experience. The newly imposed blended style of learning and the challenges it poses to students, in particular those from disadvantaged backgrounds who do not have access to adequate digital resources, have meant that students might not achieve their full academic potential. Will attempts be made by technological universities to carry out early interventions to encourage disadvantaged students to apply to and attend them?

The importance of apprenticeships and vocational education for disadvantaged students means that these are sometimes their only route into third level education. Will the witnesses speak to the strategy that THEA is working on to ensure the inclusion of students from disadvantaged backgrounds?

Mr. Paul Hannigan: I thank Senator Flynn for those questions. Living in Donegal like me, she is well aware of the circumstances that she is raising in her questions.

The question on the leaving certificate experience ties into the previous question. At the beginning of this academic year, we encouraged the students who entered college in 2020 to come to college. Some were talking about deferring or taking a year out. Everything that used to be available to them had been taken away, for example, their sporting and social outlets. Our advice was to come to college and engage with the programme. Most had to do their courses online, but we told them to make use of the year instead of wasting it. For us, the initial wish was to get as many students on campus we as could. The public health guidelines determined how many we could, so we had to reduce our September numbers to a lower number in December before moving everything online for the moment. I hope that we will return in March.

Students have been resilient in how they have engaged. The funding from the Department that allowed us to provide laptops to up to 400 students was important. They were signed up for immediately and taken on board quickly by the students involved. Now that the first semester has been completed, we are seeing a positive engagement by students with their course content, their examinations and their performance at same. We are not losing sight of the question. It is one that we must work on continuously. I am sitting in an office in Letterkenny but there is not a student anywhere in this place. I have not set eyes on many students at all this academic year, which is disappointing because, as everyone has stated, having community, engagement and life around the place is important. We want to get students back on campus as soon as we can, but only when it is safe to do so.

Regarding vocational education and apprenticeships, we must also consider that, in one way or another, all institutes provide access programmes and foundation programmes in various areas to allow different access routes into college, including through their full-time offerings. One access programme tends to get a higher profile than others, which is a source of annoyance for some of us around the table because we are doing this day in, day out. A few people around the table have heard me giving out about this previously. The access programmes that our colleges run are innovative and good at getting people back into second chance education. I will provide a statistic that came across my table again this morning and that I am seeing more frequently. We have had a significant number of mature students in full-time programmes in our 23 years plus, but that number is dwindling nationally. These people are in jobs and are now coming to us on part-time or flexible learning models or whatever that we could not pro-

vide previously online. The nature of the part-time student is changing to a certain extent. We are adapting, modifying and leading that to a certain extent. I get the questions that have been asked. It is a constant challenge day to day, but all of us in our own way are addressing that challenge. The issue is high on the agenda for THEA and all of the institutions as we move towards technological university status.

Professor Vincent Cunnane: Would Dr. Ryan like to comment on ITEC, apprenticeships and disadvantage?

Chairman: Dr. Ryan cannot hear Professor Cunnane. Would he like to call on somebody else?

Professor Vincent Cunnane: I will come in on the apprenticeships and disadvantage as the only route for disadvantaged students. There are many routes for disadvantaged students. It is important to signify the close links between our sector and the further education sector. The technological universities will maintain and grow the relationship with the further education sector. Many students come through that route. As a sector, we find that when students have been through a PLC or further education programme, they are more suitable for higher education at that point. They are ready and their retention rate within our systems is high. I would disagree with the Senator regarding apprenticeships being the only route into higher education. Apprenticeship is an important route for disadvantaged students but there are multiple entry points. As a sector, we recognise multiple entry points. As pointed out by Mr. Hannigan, we are there for mature students as well.

We would highlight to Deputies and others that there are multiple routes of entry into higher education in the context of access and for disadvantaged students, be that traditional craft apprenticeships or new apprenticeship levels 6 and 7 and level 8. The link and the recognition of credits from the further education system is also a key component of access.

Chairman: I thank Professor Cunnane. The next questioner is Deputy Pádraig O'Sullivan. I ask the Deputy to confirm that he is within the precincts of Leinster House.

Deputy Pádraig O'Sullivan: I am in my office. I do not want to detain people. Given my background as a secondary school teacher, I have an interest in all things to do with the leaving certificate and the return to schools. A process of leaving certificate reform will commence later this year. I would welcome the witnesses' observations or advice as to what real leaving certificate reform might or should look like.

Professor Vincent Cunnane: I will ask Dr. Ryan to address the issue of leaving certificate reform.

Dr. Patricia Mulcahy: Dr. Ryan is aware that he cannot be heard and is trying to reconnect.

Professor Vincent Cunnane: On leaving certificate reform, the sector is very much involved in that. Dr. Ryan is a member of a transition group on leaving certificate reform. One of the issues that we have to face as a result of the pandemic is that particular learnings will not be completed at second level. We will need to identify these gaps, which have occurred through no fault of the teachers, the schools or the students. Students have been on campus for a limited time only and so certain tacit skills as well as learnings which we would expect students coming in from the leaving certificate to have across a broad variety of areas will not have been achieved. It is important that there is early identification of the gaps in order that we can bridge those gaps and not assume that knowledge is there. This will be part of what we will have do,

particularly for the cohort which comes in this year because they were disrupted in fifth year and are again being disrupted in their final year. It is part of what we need to do and we will do that. As a sector, we sit at the same tables on the issue of leaving certificate reform. Would Dr. Mulcahy like to come in on this issue?

Dr. Patricia Mulcahy: I spoke briefly with Dr. Ryan and I think I know what he might have said, which is that there is a big discussion to be had around this issue and that THEA is fully committed to engaging in that discussion and having input into it. There is a great deal of talent and experience that can be brought to bear by our sector in terms of that discussion. Teachers work on this issue daily. I have two 15 year old daughters who have been through the junior certificate under Covid. With all of the changes that have happened, there is an opportunity to rethink the leaving certificate. Whether discussions provide for that is something we are all very interested in. THEA and the representatives from the institutes have many ideas that can feed into that process, but we do not have time to go into individual idea at this point.

Deputy Pádraig O’Sullivan: I thank the witnesses.

Chairman: Apologies have been received from Deputy Alan Farrell. The next questioner is Deputy Ó Laoghaire. I ask the Deputy to confirm that he is in Leinster House.

Deputy Donnchadh Ó Laoghaire: I am in Leinster House. As my colleague, Deputy Conway-Walsh, focused on the larger quality issues, I will be a little parochial and direct my questions to Professor Cusack. As this is my first engagement with her, I congratulate her on her appointment. The Munster Technological University is very historic. It is very exciting for Cork and I wish all involved the very best of luck.

On the transition to technological university status, Professor Cusack’s predecessor, Barry O’Connor, would have made the point that pound for pound the funding per student in the IT sector, now technological university sector, represents incredible value for money but ultimately that was unsustainable. The amount that universities were given per student then was much lower than is being provided now for the technological universities. I ask Professor Cusack to comment on that.

I understand there is a memorandum of understanding in regard to the agreement to implement Munster Technological University. Can Professor Cusack provide a timeline for full implementation of that memorandum of understanding? As I understand it, there are some outstanding issues in the context of phases 3 and 4. I would welcome an update on that issue and also on the Cush report and its implementation, particularly as it relates to contracts.

My final point is in respect of the learnings for other institutes of technology that want to transition. In Professor Cusack’s view, what challenges lie ahead of the technological university as it builds up steam and what are the learnings for other institutes of technology as they make the transition?

Professor Maggie Cusack: The Deputy has posed a number of questions and I will respond to them in the order in which they were asked. The value for money is an issue we have already touched on. It is a really important point. I think we are providing incredible value for money but there is a cost there in terms of staff time and effort to deliver real quality in the context of the learner’s experience. We have set ambitious challenges as a technological university in terms of upscaling the research and innovation. It is clear that more funding is required in the system for us to achieve all of the ambitions that we are keen to achieve.

On the memorandums of understanding and working through them, we are doing exactly that. We are working through them and addressing all of the points. We are working hard to bring everybody with us to realise the ambitions we want to deliver.

The question of contracts was raised. I was asked in general terms about the challenges that we may see in technological universities and lessons that others could learn. There will be opportunities for professional management and support staff. Hopefully there will be career opportunities for them as we develop a different type of organisation with different endeavours or additional endeavours and priorities.

The development of an academic employment framework is important for the technological universities. There is a point about contracts with researchers and this is an integral part of it. We are helping to support and develop early career colleagues in all aspects of academic endeavour, including learning and teaching, their own research and how they interact with industry and companies. The idea is to have all those aspects strongly all the way through. That is a really essential point to realise the full potential of staff. We all agree there is an extraordinary amount of exciting potential. That is certainly one of the steps that would really help us to achieve this.

There are other points around digital infrastructure. We heard mention of the technological university research network report earlier. The primary recommendation is about having outstanding digital infrastructure. We spoke about learning from Covid-19. We have learned many lessons from what can be done there. This has been a real opportunity for us to do things even better in terms of other teaching, how we engage and do research, interacting with companies and how we can do things in a virtual way to great effect.

Deputy Donnchadh Ó Laoghaire: I will not add much to that, but I look forward to meeting and engaging with Professor Cusack. It will be a novelty to see Munster Technological University teams in the Fitzgibbon Cup, but I wish them the best of luck in any event. I imagine MTU will have as much success as CIT.

Chairman: The next questioner was to be Deputy Ó Cathasaigh. I have apologies but I do not think he is here. Senator Rónán Mullen is next. I ask the Senator to confirm that he is on the precincts of Leinster House.

Senator Rónán Mullen: Yes, I am. Cuirim fáilte roimh gach duine anseo. I have met many of them before. I wish Professor Cusack the best in her role as well.

I wish to look back at what Deputy O'Callaghan raised in respect of STEM courses earlier. The answer was given, as I recall, in terms of diversity. Is it simply a question of diversity? This is a question coming from me rather than a statement. Is it simply a question of diversity or is it also one of quality? Is this connected with the question of whether we are losing ground in our education system at second level? Is it something connected with the subject we hope to have the witnesses in on in due course, namely, the question of leaving certificate reform? Does THEA see those as connected issues around assessment, the syllabus, attracting students and getting quality results? That is the first question.

I have one other question I want to ask. Why is THEA so against student loans? I can understand that there would be a revolution now if it were to be proposed in the context of the diminished student experience but we are facing major financial challenges in the country. I would have thought a student loan system does not automatically mean higher charges for stu-

dents. What is so wrong with such a system if repayment, the start date and the rate of repayment is tied to the future income level of the graduate and to his or her ability to pay?

Professor Vincent Cunnane: I will address the soft question at the end. Perhaps Dr. Mulcahy may look at the quality issue but I will take the second question. Others may come in after me. On the issue of student loans, we came out against it strongly for several reasons. First and foremost, the student body that we talk about includes first-generation students, access students and disadvantaged students. The idea of borrowing is not endemic in that group. I do not like to speak in generalities but it is a particular issue. We see this as a way in which fewer students would come in to higher education. When the matter was before this committee previously in respect of the Cassells report, I asked one question. I asked that we not do anything that would limit access. We hold by that statement. I appeal to members not to do anything that would limit access as they reflected upon the Cassells report. That includes the student loan aspect in particular. Our deeply held view, backed up by research from Trinity, is that the loan system would inhibit access. It is often quoted that in the first years of the student loan system in the UK and other places, access to higher education increased. That must be counterbalanced by the fact that in the years after that, the numbers dropped off significantly with debt accumulated to those students. Professor Cusack will be able to come in on aspects of this that pertain in the UK. We do a great deal of work in the social areas, including social sciences, early childcare, nursing and the caring professions. The graduates cannot clear their debts. It has been shown in the UK that many of the graduates in these areas are never in a position to clear their debts, never mind attract other funding such as mortgages etc. This is because they are poorly paid relative to others. Actuaries and those working in aspects of engineering and science will get good jobs that are highly paid but our sector has a large percentage of people in the caring professions. Again, it has been shown that it is difficult for them to repay loans and to have a life thereafter. We remain committed to the fact that student loans should not be part of the Cassells side of things.

This is a State investment on which the State receives many multiples of a return. When the committee comes to discuss the Cassells report, the issue of access should be to the forefront of the thinking of members. Aspects of our sector, including many first-generation students and many people in caring professions should be part of that consideration. Dr. Mulcahy might come in on the quality side of things and Professor Cusack might say something about her experience in the UK loan system.

Dr. Patricia Mulcahy: We looked at the quality perspective when we were answering that question. I have over 30 years of experience in higher education. As a biochemist with a deep passion for all things STEM for a long time, it puzzles me why more people are not attracted into STEM. Many studies have been done on it. It is a challenge. Delivery of science subjects in secondary schools has improved significantly. I see the kind of curriculum they are developing and so on and I do not believe that the issue necessarily resides there. Therefore, it must be elsewhere. There is a disproportionate number of male students coming in to some of the STEM areas as opposed to female students. There is a need for strong role models. I wonder if ultimately the difficulty is the attractiveness or identification with careers and future prospects in a number of STEM areas. Many efforts are going on right across the country to get companies more involved and to show students the types of career possibilities and what the day-to-day work of a scientist, a computing technologist or whatever it might be looks like. People can relate to games development and other things like that. It is more difficult when it comes to analytical science. Given the pandemic and the focus on science and the wonderful achievements in science in the past year, I wonder whether we will see a surge in people coming into

the sciences. I really hope that is the case. It is a rewarding career but we have to get better at promoting it. The regional skills forums that are scattered across the nine regions are working hard on that. I chaired the forum in the south-east region. The future of careers is attempting to do that. We are liaising with and supporting schools and their students to make this choice. It is a mixture of things.

I would also say that the facilities in the colleges are a part of that. If the laboratories are not modern and up to date when students come into the university and they see other areas that are shinier and newer, that is also an issue. The public private partnership projects are really important. Carlow's public private partnership is a science building and that is very much geared towards increasing students and graduates in that area.

Chairman: Our next speaker is Senator Malcolm Byrne. I ask him to confirm that he is in the precincts of Leinster House.

Senator Malcolm Byrne: Táim anseo, go raibh maith agat, Cathaoirleach. I echo Mr. Hannigan's comments about welcoming the continued commitments of the technological sector to providing access to education. I understand that much profile is often given to one access programme but the institutes of technology and technological universities, TUs, have a very strong emphasis on access and always have. It is fair to say, across a variety of matrices, that Letterkenny probably has one of the best records, if not the best, and that should never be lost.

I will ask a number of questions of our guests, starting with Professor Cusack. I congratulate her on her appointment. We are talking here about the future of the TU sector. The creation of Munster Technological University, MTU, has provided an opportunity for the Cork and Kerry regions and will be transformative. Those of us from the south east are looking forward to similar developments, as are others in other regions. We are looking forward to chatting around that issue. To be slightly parochial, I will come to Dr. Mulcahy and talk about a concern I know that the Chairman shares. Dr. Mulcahy might provide us with an update on the Wexford campus. We, across parties, are happy with the progress that is being made towards the TU in the south east. I certainly think it will be beneficial.

I have a more general question that Professor Cunnane or Dr. Ryan might want to address around the sector. As they are aware, the national development plan, NDP, is currently being reviewed. What messages would they be giving to Government on priorities around the review of the NDP? They will also know that a review is going on around the role of the Higher Education Authority, HEA, and university governance. What are the major changes that our guests would like to see happen in that sector?

I will also follow on from a question asked by Senator Mullen. We have continued to expand the sector but if additional public funding is not made available, should we then look at a cap on the numbers of students in higher education or allow continued expansion and the possible impact that has on quality?

Professor Maggie Cusack: I will answer the first of the Senator's questions. As we said at the start, I consider MTU an incredibly exciting opportunity, with all the changes that we are describing today in the landscape towards TUs. MTU has a lovely combination of the urban and rural and real synergy can play out in those two sectors in terms of the expertise of individuals, those different communities we serve and all of those industrial links that we have to benefit those across the entire MTU. I think it will be more than the sum of its parts.

I have received feedback from people on the ground in Cork city who are talking about the level of excitement that we have MTU here and now. We have University College Cork but there is a different flavour to the offering of a TU and we can really pick up on excitement for the opportunity. The situation is similar in Kerry. A number of people have said to me that people have left because there is no university in the area. The establishment of MTU really serves Ireland 2040 and its ambitions as they apply to the rural economy and the stickiness in allowing people to stay in the area, be a part of that community and contribute to society and the economy. There are many positives across that regional footprint and everyone is absolutely committed to building on the strengths of the institutes of technology so that connectedness in the community links with industry and companies and how we can take that and grow it, without diluting it in any way. We will grow that offering through the cutting edge research and innovation we deliver in co-production with companies. That will be to the benefit of all of our students and staff now and for generations to come. That is what we are building here so that long after we are all gone, there are great technological universities delivering in Ireland.

Professor Vincent Cunnane: Will Dr. Mulcahy take the question about the Wexford campus?

Dr. Patricia Mulcahy: As the Senator knows, the Wexford campus was established just over 25 years ago as a pilot. It has been a very long pilot study. Over that time, we have been operating in leased facilities which have been good as a pilot arrangement but, obviously, at this stage we have outgrown their capacity. We have almost 1,000 part-time and full-time students currently, with 100 part-time and full-time staff and 250 graduates per annum, up to master's degree level. The reason I am pointing that out is because I have heard all of the radio dialogue and sometimes when one listens to it, one would think there is nothing in Wexford. Wexford has that facility but it is time to move it on.

Approximately five years ago, we made a successful case to move it from the pilot stage and to purchase a greenfield site on which we could build a customised campus. We have, at the moment, a detailed proposal and business case for the Wexford site. The proposal is with the local authorities in higher education and we are awaiting their decision. I have seen the Minister's support for that and witnessed it in meetings with him. He strongly supports it. I would say that this is the third time we have been here. We had contracts signed and a deposit paid three years ago but the vendor withdrew. That took two years out of the five years. We have looked at many different sites, made strenuous efforts to get a site, and one would hope that we are now very close. The signs are good and I hope we will have a good result.

I must also say that we would not have been able to get to this point without the support of Wexford County Council. We will need its support as we take development to the next stage. We have included the build as part of our submission to the NDP through the HEA. The HEA took information and priorities from all higher education institutions and the Carlow Institute of Technology has included the Wexford site and the build on it as a part of that.

Professor Vincent Cunnane: Does Dr. Ryan have any data on the HEA and university governance side of things in which we are involved?

Chairman: Whoever is going to reply has about 30 seconds left.

Dr. Joseph Ryan: I will be brief. I thank the Senator for the questions. We have done a substantial submission on the NDP that I will happily share with the Senator. It obviously links in to the TURN report and determinations. As the Senator knows, there will be a look at

governance. The Minister has flagged that and I have referenced it. There are decisions to be made around size, competency and representation and we will be making a contribution to that.

Chairman: Is Deputy Nolan on the line? She is not. It is down to me in that case. I again welcome the representatives of the TUs before the committee. Deputy Jim O’Callaghan spoke at the outset of the meeting about the transformative effect of TUs on third level education. I agree with him on that. Having the witnesses appear before the committee twice in recent months highlights the importance of what the TUs are doing.

A question was asked about reform of the leaving certificate. In the coming weeks, the committee will begin a body of work on reform of the leaving certificate. This comes at a time of considerable debate on the leaving certificate of 2021 and 2020 as a result of the Covid pandemic. The leaving certificate has served us well, but we now have a different cohort of students. I believe the leaving certificate is outdated, beyond its sell-by date and needs reform. Dr. Ryan may have been offline when Professor Cunnane called on him to come in on the matter. I would be interested to hear Dr. Ryan’s views on reform of the leaving certificate. In particular, I believe we need to look at ongoing assessment.

Dr. Joseph Ryan: I sincerely apologise to the Chairman and members of the committee. I was caught by gremlins and I missed some of the questions. I will listen back and if there is any follow-up, I will contact members directly.

At the recent launch of Education Matters, the Taoiseach spoke about leaving certificate reform and express the view that the leaving certificate was too inflexible and used a very limited range of assessment. One of the things the pandemic has taught us educators is that the assessment concentration of the leaving certificate did not sustain in a time of crisis. This crisis gives us a chance to reflect on this as an instrument and as a measure of what people have achieved, and also as a measure of potential for going on to further education. We would be very happy to work with the committee on that and we would be delighted to get an invitation to come back to discuss it with the committee.

Chairman: I thank Dr. Ryan for that.

I have a question for Dr. Mulcahy that follows on from Senator Byrne’s question. I am being somewhat parochial in asking about the technological university in the south east and the Wexford campus. Is Dr. Mulcahy confident that the group will have its application ready for the technological university by the end of April and that it can be in place by January 2022?

On local radio yesterday, the Minister, Deputy Harris, spoke about the TU in the south east and also about the Wexford site. Buying the site is one thing, but the follow-on investment for infrastructure is required. The next stage in setting up the TU is deciding what courses and programmes will be available in the Waterford, Carlow and Wexford campuses. This is a fantastic opportunity for the TU in the south east and, more importantly, for the Wexford campus. I thank the president of IT Carlow, Dr. Mulcahy, for that institution’s commitment to County Wexford over many years. I have attended all the graduation ceremonies in recent years. They are absolutely fantastic.

Carlow has given Wexford students the opportunity they would not otherwise have had, had IT Carlow not had the foresight to put in the campus there. It was a pilot programme 25 years ago; I will not call it a pilot programme now because it has its successes and is absolutely fantastic.

I understand much of this needs to be worked out in the application, with the Minister and through the European assessment on the infrastructure investment, the future programmes for County Wexford and the site in County Wexford.

Dr. Patricia Mulcahy: The Chairman has been a great supporter of this development and has been at every conferring during my time in this role at the magnificent Wexford Opera House. It has always been a wonderful occasion.

As I mentioned, there is a commitment to purchase the site. Once that is done, we can start the work of designing the first phases and the phased development of the Wexford campus. That is a critical point to get to. As I said earlier, all higher education institutions gave details of their priorities under the review of the national development plan and we have included a significant amount for that first phase. We have made a business case on it to the relevant authorities in education, including the pros and cons of remaining in the leased building and the need for this new development as soon as possible to provide additional facilities to the students to accommodate even our existing 500 and to allow for a threefold increase in the number of students there within the coming decade. That deals with the build on the site.

There is much talk about a faculty being located on a particular campus. That is not the way we are thinking at the moment, but it will be a matter for the new organisation. We envisage faculties that are cross-campus so that one discipline is not confined to a particular campus but that it can serve the needs of the region. We already have a good portfolio of programmes available in Wexford that do not exist in our Carlow campus or in our Wicklow campus; they have been customised for Wexford. That kind of approach will be taken forward. How the programme portfolio is delivered across the campuses will be a critical decision for the new organisation and will take some time to develop.

On the Chairman's third question, we are fully committed to achieving designation on 1 January 2022. A number of steps need to happen before that, including the submission of the application. Both colleges, Waterford IT and IT Carlow, are fully committed to making that deadline. A significant amount of work remains to be completed in that time, but we are all committed to doing that. All the staff and students involved in the two colleges are very supportive. We also have good support from stakeholders. At this stage we are trying to demonstrate integrated activity and integrated thinking not just across the colleges but across the region. We are working on that with the help of all the stakeholders in the region and that will make it a success. As long as that can continue and we can build on that, I would have the confidence that the Chairman asked me about.

Chairman: I thank Dr. Mulcahy and Mr. Donnelly in Waterford IT for their ongoing commitment. I also thank Senator Byrne for organising the briefings in recent months which have been very beneficial for all the Oireachtas Members from County Wexford.

We will have time for other members to come back in; I do not want to be seen to be hogging the meeting. I ask Professor Cusack to compare her experience in Scotland with her present position as president of a TU in Ireland. What are her views on the direction of the TUs? What can she bring to Ireland from her experiences overseas? This is a new learning experience for all the TUs and other universities, which is absolutely fantastic. In third level education there is an equal opportunity for all students.

Professor Maggie Cusack: It was this incredibly exciting opportunity, to which I referred earlier, that attracted me to the role. There is so much that I see that is integrated and part of

the fabric of the technological universities about which I am really passionate. I am very much from what one might describe as a rough-and-tumble secondary school in Glasgow and my view is that education is genuinely transformative. This is a passion I have that everyone is committed to delivering.

I grew up in an academic system where I would be required to teach, carry out research and do administrative work. All these things would all be valued and one would be expected to have that broad portfolio. A lot of things that come through the TURN report that really speak to the highest ambitions of the technological universities are to enable our staff. The greatest benefit we can achieve is when our staff are self-motivated and driven, not by the hours they work but by what they can achieve and having that possibility to research, develop new knowledge, innovate and make a difference. The more we can follow the recommendations of the TURN report and get ourselves to a position where we are really delivering on the full potential of the technological universities, the more it will be a really exciting situation for Ireland to find itself in. I feel very privileged to make my contribution to those endeavours.

Chairman: I have one last question, which can be answered by Mr. Hannigan or Professor Cunnane. I am at looking at this topic through the lens of the TU in the south east and the opportunities that are there, be they through foreign direct investment, more jobs, allowing people to be educated and work in their own regions. This is what the TUs are all about. How do TUs increase and improve their relationship with the IDA in terms of getting more foreign direct investment into the regions? When companies come to a region, the first thing they look at the educational status of the region - whether there is a university or a technological university there. I am interested in hearing Mr. Hannigan and Professor Cunnane's views on that. TUs are all new to the regions. Where can we and the TUs improve on that? How can we, as Members of the Oireachtas, improve on that in assisting the witnesses?

Professor Vincent Cunnane: Does Mr. Hannigan wish to take that question?

Mr. Paul Hannigan: I referred to that earlier with regard to meeting one of the clients that is moving into Donegal. It is quite clear that the educational profile of the region is really important from the client's perspective. The possibility of retaining people in the region is really important as well in terms of giving people a first start and then offering them opportunities to develop within those companies. The Connacht-Ulster alliance, CUA, consisting of ourselves in Letterkenny Institute of Technology, Institute of Technology Sligo and GMIT will make an application for TU status imminently. We believe the growth and strength of the larger organisation will allow us to put even more support behind attracting foreign direct investment to the region. We have a very strong track record as institutes of technology in terms of our engagement with the companies. The example I gave earlier was interesting in that we have had no new foreign direct investment client in Donegal for about 20 years but the companies that came in 20 years ago have grown from very small companies that might have employed 100 to 200 people to having over 4,000 people employed in that area. To me, that is a really strong indicator of the transformative impact of education and the possibility of retaining people in the regions.

The TUs will bring regions closer together. I know we have always been very competitive with one another throughout the country in terms of the individual institutions competing for students and resources. As we come together as the bigger technological universities, hopefully, that will dissipate and we will come together stronger as regions to get more resources into the regions. There is no doubt that we will retain more people from our own regions. If we look at the current make up of the population of any of our universities or institutes of technology,

we can see that it is becoming increasingly a local product in terms of the retention of students within the regions. This will be even more pronounced once the technological universities are developed. That will be a really strong sign point for any of the regions regardless of which technological university it is.

Professor Vincent Cunnane: We just completed the international panel review for the Athlone Institute of Technology-Limerick Institute of Technology consortium. We await the outcome, hopefully some time in March. We got very little feedback on that but we did get one bit of feedback from the international panel, which met a lot of stakeholders with whom the panel was very impressed because the engagement of the potential of a technological university with external stakeholders is so high. Mr. Hannigan made a very important point. The technological universities are redefining the regions of Ireland. In a sense, the midlands and the mid-west will become a new region that nobody will call the mid-west or midlands. Whether it is the south east or the CUA, these things are being redefined based around not geographical limitations but access to the technological university sector and what that means. Ask Joe McGrath of Tipperary County Council about the impact of hopefully soon having university towns in Clonmel or Thurles or ask Clare County Council about the impact of a university town in Ennis, never mind Athlone - Limerick obviously already having a university. As these are real, deep, meaningful and transformative outcomes of technological university activity, a new chapter remains to be written in terms of regional development in this country.

Chairman: Senator Byrne was pre-empting what I was going to say next. If anybody wants to come in, they can raise their hands.

Senator Malcolm Byrne: On the last occasion, I asked about what choice would be available to the sector if more public funding was not available. Mr. Hannigan might comment on cross-border possibilities in the development of the CUA. I see Brexit as an opportunity for higher education and research even though there are challenges as well. Mr. Hannigan might talk about that.

In his opening remarks, Dr. Ryan made reference to the borrowing framework. When we talk about capital development, can we also talk about the development of on-campus student accommodation? Obviously, this has been quite a big challenge. Professor Cunnane referred to these university towns and what will make a heart of that will be the development of much-needed on-campus accommodation.

Professor Vincent Cunnane: After Dr. Ryan responds, I can talk about the student accommodation issue at the end.

Dr. Joseph Ryan: I will capture a couple of points. I noticed the number of people who mentioned EDI, which is really encouraging. I thank members for that. It is a priority for all our institutions and our sector. We are completing a propel project on consent, which we will launching next month. We see that as being very significant because it has been an integrated and cohesive response from the sector. We have also set out on delivering the first part of race training, which is around the broader understanding of the race background. We see this and intersectionality as really important work over the next while. I acknowledge the work of colleagues on that. I am delighted to hear Professor Cusack say that this will be sitting right at the top table.

Professor Cunnane addressed the learnings from Covid, which were mentioned by Deputy O'Callaghan. We see that the impact of that has been disproportionate. The disadvantaged are

more impacted. A lot of very good work has been done cohesively by the sector working with the Department of Further and Higher Education, Research, Innovation and Science and its agencies in delivering things like devices etc. for students. What we also see is disadvantage in terms of broadband access. I know there is very good work happening through my colleagues in HEAnet and EduCampus to extend that capacity throughout the country. We should also say that our staff have been hugely supportive with regard to the broader pastoral support for students even at a distance. We should not forget the professional and management support functions have been hugely important in this role as well.

Senator Dolan referred to Horizon funding and the disproportionate access to that by our institutions. She is absolutely right. That is exactly what the legislation is about. It is to build the capacity to compete better for European funding. It is worth noting that over the past few years, 33% of our funding has come from Europe. Our institutions are performing better on this front.

In response to Senator Byrne, I would not like to end this meeting without referring to the question that he and Senator Mullen raised about that part of the funding and the balance between quality, access and whether there is a universal right to access higher education. Ours is a wealthy society and there is a question of what we prioritise and invest in as a society. Professor Cusack used a lovely word, “stickiness”, earlier on. If we are to empower regions and stay in regions, we will have to invest in that. The key aspect of what we are doing here today is a plea to the committee for an initial injection of funds to ensure that these technological universities can do exactly what we propose they can do. Professor Cunnane can answer the Senator’s question.

Professor Vincent Cunnane: Senator Byrne highlighted a significant issue, which is student accommodation. Unlike the university sector, we do not have access to funding to build student accommodation. All of us would gladly build commercially oriented student accommodation which would allow for on-campus accommodation. We do not have that privilege because we lack borrowing capacity. We will never take our seat as equals until the borrowing capacity issue is addressed. Some €700 million is tied up in the borrowing capacity of the universities. It has allowed them to diversify their income streams, to attract more international students and to take necessary and innovative steps to increase their funding sources. It would help with Senator Mullen’s approach too. When members highlight accommodation, they highlight a deeper issue, which is lack of borrowing capacity for this sector. Even though the capacity is provided for in legislation, it has never been implemented. It needs to be implemented and it is a key requirement for us to fully realise the technological university ambition.

Mr. Paul Hannigan: On Brexit, we have been very involved in cross-Border activity over the years. A benefit of Brexit is that it has brought political focus back to the Border. There is not much benefit to Brexit, as everybody can see, but from our perspective, being selfish about it, it has brought our focus back to the Border. We are focused on it in the north-west city region with Letterkenny and Derry city. We also see that it can pay off with an ongoing injection from the Connacht-Ulster Alliance. That level of activity will continue and we are involved very much in cross-Border activity.

Senator Mullen referred to student loans. I accidentally came across a tweet from somebody last night, which states: “After 10.5 years and roughly £21,000 of debt- I finally paid off the last instalment of my student loan today.” That is a fairly strong argument. The person who wrote the tweet goes on to develop it further but it gives an indication of the level of debt that people can incur. He goes on to suggest that with the increase in fees in the UK, that debt could be around £50,000 or £60,000 for students leaving now as opposed to when he was going to

college.

Senator Rónán Mullen: I thank my old friend, Mr. Hannigan, for bringing that to my attention. It is important to make clear that it is not a question of one possible model or no model at all. Professor Cusack was invited by Professor Cunnane to address this as well but I had run out of time. If Professor Cusack has some thoughts on this, I would like to hear them. In response what Mr. Hannigan said, I would have thought it was possible to tailor a system so that lower-paid graduates in areas such as nursing are not penalised. One can imagine a system where repayment comes into play once certain income levels are reached and that the rate depends on the income level a person has attained. The glaring problem in our country is probably not so much that people will be unable to pay back student loans but that graduates will not be able to afford houses. That is a significant question but it does not take away from the merits of considering the question of student loans in a suitably tailored form. I am not doctrinaire on this point. I am interested in a free-flowing debate on the issue. Perhaps Professor Cusack might have something to say.

On the issue relating to STEM that I raised when I asked about quality and whether our education system is in some way lacking, I note what Dr. Mulcahy had to say. Do people have a view on whether aptitude tests at an early stage of the second level experience are a good indicator of people's capacity? The witnesses are already telling me with their heads.

Professor Vincent Cunnane: No.

Senator Rónán Mullen: The witnesses might address that subject. I had a personal experience that wisely kept me away from engineering. I would like to know more of the witnesses' thoughts on that.

Professor Vincent Cunnane: I would say that Senator Mullen is a loss to engineering.

Senator Rónán Mullen: My father told me to stick to the books and get off the building site.

Professor Vincent Cunnane: I say to all students coming in that we will not judge them coming through our door but that we will judge them leaving. To categorise people at early stages in their lives, whether it is the eleven-plus in the UK or other matters, is totally contrary to the ethos of the regional technological colleges, the institutes of technology and the new technological universities. We do not believe that people reach their potential at a particular age. We believe that they reach it at various junctures in life due to life experiences and financial and other reasons. We as a sector are always there for them when they are ready for us.

Senator Rónán Mullen: I am not asking Professor Cunnane whether his sector should admit them or not but whether-----

Chairman: Give Professor Cunnane an opportunity to respond.

Senator Rónán Mullen: -----a second-level examination might funnel people towards areas that they have an aptitude for so that they end up applying for those courses.

Chairman: I ask Senator Mullen to give Professor Cunnane an opportunity to answer.

Professor Vincent Cunnane: The Senator is opening up a substantial question. I will speak personally. It is my firmly held belief, which I will try to back up with evidence, that that is not how we should do things. The Senator rightly says that we should try to get more girls

into STEM. They are subject to other external forces at that time of life. Why do girls give up sport when they come to second level? External peer pressure is a factor. These issues cannot be resolved by a simple test but are complex and societal in nature. We should hold open the opportunity for people to explore all avenues until they are ready to make that decision. The beauty of the leaving certificate, for all its limitations, is that it is a broad-based examination which explores that and allows people to see where their real aptitude is, but that comes later. I do not like the idea of categorising people and limiting opportunities at earlier stages. We will look into that as a sector and come back with some evidence.

Chairman: I have one final question and know Senator Dolan wants to speak too.

Professor Vincent Cunnane: Professor Cusack did not get a chance to speak. She is dying to come in.

Professor Maggie Cusack: I have reflections if people want to hear them. My experience is of the Scottish system. Education is a devolved matter and is not reserved for Westminster. That means that we have a complex situation where Scotland states that students will not pay fees but can have access to a loan. They have the bond for their accommodation and living expenses, so students still finish with debt but it is not on the scale that students south of the border have, where, when they came in initially, the fees were £9,000, the highest in Europe. We then had a complex situation where we had home students, EU students, who are in a similar situation, and then what are described as “rest of UK” students. There were, therefore, all sorts of fee structures going on there.

I spoke about my passion and the fact that education is genuinely transformative. That is a debate for a society to have. We must ask if we genuinely want to have a meritocracy and is that what we are willing to support. I hope the answer would be “Yes”. We must think about how we best achieve that. This is a huge topic and one that warrants a lot of careful discussion to really understand as a society which direction we want to take. In England, the decision was made, as the committee knows, almost over a weekend. It is not as if the situation there is similar to the one in the United States where people can decide when their baby is born if they are going to invest for college fees. That was not an option. One then starts to see real differences in who can and cannot access quality education. That is a big societal debate.

Senator Aisling Dolan: I am very happy to hear about the panel review report which is coming through for AIT and LIT. I look forward to seeing it in mid-March. On education being open for all, I spoke to the regional skills forum recently, which pointed out that our education model is quite open. The graduates who come through the system have a very broad understanding of many subjects which is then pinpointed at third level. It must be open for all and I very much appreciate the apprenticeship model in further education and reaching NFQ level through many different ways. The advanced manufacturing in GMIT was mentioned as was how we can support students to reach career choice by many different paths. That is what is so amazing and wonderful about the TUs.

Chairman: afdafd

Professor Vincent Cunnane: The apprenticeship will continue to be a core part of what we do. The committee may rest assured on that.

If I could say a last couple of words, I thank everybody for their involvement. As Dr. Ryan said, there are a number of issues on which we will follow up. This sector that has transformed

not just Irish education but Ireland. It has been in existence for more than 50 years, having started as regional training centres, RTCs, before becoming institutes of technology and now technological universities. We have responded to the needs of Ireland and shaped the type of Ireland we have today. We are still doing that through our access and other issues. We have remnants of the RTCs still in operation and as we move forward, those remnants must be eradicated if we are to realise the full ambition.

On finance, we must ensure we have money for research and a borrowing capacity. There are contract issues that need to be resolved but we also have no academic promotion within our sector. These issues are related and hugely important. This whole session is about the future of the TUs and how we realise our ambition for them. There are limitations on us, which were imposed by historical issues that were never fully addressed. Until those issues are addressed, our ambition and the committee's ambition for the technological sector experiment will not be realised. Let us ensure it turns out to be a highly successful one. We are all behind it and thank the committee for its time and effort in this space.

Chairman: I have one last question. I was going to ask Professor Cusack about Scottish independence but instead I will ask about EU and international research funding. Do the TUs have greater opportunities post Brexit? Perhaps Dr. Ryan or Prof. Cunnane will answer that for me.

Professor Maggie Cusack: I can take that question.

Chairman: That is no problem. I would be very interested in hearing the professor's views on Scottish independence.

Professor Maggie Cusack: Brexit is very painful from my perspective. Growing up in the UK system, there was no doubt the UK punched way above its weight in terms of securing research funding from the EU. That provides an opportunity. Nothing is automatic but I emphasise everything we said about using the technological university transformation fund to upskill and support staff and to use any pump-priming initiative that might come from the Irish Research Council to help technological university staff compete for funding. That would have multiple benefits in upskilling researchers and then putting them in a position where they can be really competitive to lead on large European grants. The sector could then realise the benefits afforded to it.

Chairman: Does anybody else want to come in on that?

Dr. Joseph Ryan: I fully support what Professor Cusack has said and it is at the heart of what we arguing at the moment. Building the skill set of our own staff is key and is actually at the heart of the legislation. That will allow us to compete on a bigger scale because we certainly have the talent.

Chairman: I thank Dr. Ryan. We will have the Minister, Deputy Harris, before the committee next week when I will raise with him the specific issue of post-Brexit opportunities. I thank the witnesses for their attendance. The discussion has been very informative and productive. As I said, it is indicative of the importance of TUs that this is the second time in a short number of months that several of the witnesses have appeared before us. Everybody is very excited by the transformative plans for the technological universities and I commend all the witnesses on their hard work, dedication and commitment.

It is fantastic that we have two lady presidents in attendance. It says a great deal about giv-

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ing women equal opportunities at third level, which has been a male-dominated sector for a long number of years, if the men present do not mind my saying so.

This is a seismic shift and positive change for the Irish education system. I thank the witnesses for their offer to come before the committee when we discuss proposals for reform of the leaving certificate. Unfortunately, the meeting had to be held online due to Covid. We would prefer if witnesses could attend in person but hopefully when we all get our vaccinations, we will be able to gather in person once more.

The joint committee adjourned at 3.08 p.m. until 4 p.m. on Tuesday, 23 February 2021.