



**Cynulliad Cenedlaethol Cymru
The National Assembly for Wales**

**Y Pwyllgor Menter a Dysgu
The Enterprise and Learning Committee**

**Dydd Gwener, 25 Ebrill 2008
Friday, 25 April 2008**

Cynnwys
Contents

- 4 Cyflwyniad ac Ymddiheuriadau
Introduction and Apologies
- 4 Tystiolaeth i Ymchwiliad y Pwyllgor i Gyfraniad Economaidd Addysg Uwch
Evidence to the Committee Inquiry into the Economic Contribution of Higher
Education

Cofnodir y trafodion hyn yn yr iaith y llefarwyd hwy ynddi yn y pwyllgor. Yn ogystal,
cynhwysir cyfieithiad Saesneg o gyfraniadau yn y Gymraeg.

These proceedings are reported in the language in which they were spoken in the committee.
In addition, an English translation of Welsh speeches is included.

Aelodau'r pwyllgor yn bresennol
Committee members in attendance

Jeff Cuthbert	Llafur Labour
Gareth Jones	Plaid Cymru (Cadeirydd y Pwyllgor) The Party of Wales (Committee Chair)
Huw Lewis	Llafur Labour
David Melding	Ceidwadwyr Cymreig Welsh Conservatives
Sandy Mewies	Llafur Labour
Janet Ryder	Plaid Cymru The Party of Wales
Kirsty Williams	Democratiaid Rhyddfrydol Cymru Welsh Liberal Democrats

Eraill yn bresennol
Others in attendance

Huw Evans OBE	Principal, Coleg Llandrillo Cymru
Dr John Graystone	Chief Executive, Fforwm
Gerry Jenson	Assistant Principal, Coleg Llandrillo
David B. Jones	Principal, Deeside College
Dave Manley	Plant Training Manager, Airbus UK
Andrew Parry	Head of Corporate Communications, NEWI
Professor Michael Scott	Principal and Chief Executive, NEWI
Professor Wilkinson	Graeme Assistant Principal (Research, Scholarship and Postgraduate Studies) and Dean of the Faculty of Business, Science and Technology, NEWI
Dr Gareth Williams	Head of Performance and Improvement, Airbus UK

Swyddogion Gwasanaeth Seneddol y Cynulliad yn bresennol
Assembly Parliamentary Service officials in attendance

Dan Collier	Dirprwy Glerc Deputy Clerk
Dr Kathryn Jenkins	Clerc Clerk

Cynhaliwyd y cyfarfod yn Ngholeg Glannau Dyfrdwy, Glannau Dyfrdwy
The meeting was held in Deeside College, Deeside

*Dechreuodd y cyfarfod am 8.59 a.m.
The meeting began at 8.59 a.m.*

Cyflwyniad ac Ymddiheuriadau Introduction and Apologies

[1] **Gareth Jones:** Bore da, a chroeso i'r cyfarfod. Yr ydym yn falch iawn o'r cyfle i gael cyfarfod yn y gogledd, felly croeso arbennig i'r Aelodau sydd wedi teithio o'r de ac yn gwybod rhywfaint mwy yn awr am y pellter rhyngom ni yn y gogledd a'r de. Yr ydym yn falch iawn o'ch gweld. Yr ydym hefyd yn croesawu'r tystion a phawb arall sy'n ymuno â ni y bore yma.

Gareth Jones: Good morning, and welcome to the meeting. We are very glad to have the opportunity to meet in north Wales, so a special welcome to those Members who have travelled from south Wales, and who now know a little more about the distance between us in north Wales and south Wales. We are very glad to see you. We also welcome the witnesses and everyone else who joins us this morning.

[2] Mae angen gwneud un neu ddau o gyhoeddiadau pan yr ydym yn cyfarfod yn gyhoeddus fel hyn. Yr wyf yn eich atgoffa i ddifodd ffonau symudol ac unrhyw ddyfais electronig arall sydd yn eich meddiant. Ni fydd angen i chi gyffwrdd y meicroffon. Os bydd argyfwng, bydd yn rhaid i ni ddilyn cyfarwyddiadau'r tywyswyr a chael ein harwain o'r adeilad. Mae'r cyfarfod yn ddwyieithiog, fel y clywch, ac mae clustffonau ar gael i dderbyn gwasanaeth cyfieithu ar y pryd o'r Gymraeg i'r Saesneg ac i chwyddleisio'r sain. Bydd cofnod o'r cyfan a ddywedir yn gyhoeddus.

A few announcements need to be made when we meet in public like this. I remind you to switch off mobile phones and any other electronic device in your possession. You will not need to touch the microphones. If there is an emergency, we must follow the ushers' instructions and be led from the building. The meeting is bilingual, as you hear, and headsets are available to receive the simultaneous interpretation service from Welsh to English and to amplify the sound. There will be a record of everything that is said in public.

[3] Derbyniwyd ymddiheuriadau ar ran Alun Cairns a Christine Chapman, ac yr wyf yn deall y bydd Janet Ryder yn ymuno â ni yn hwyrach.

Apologies have been received on behalf of Alun Cairns and Christine Chapman, and I understand that Janet Ryder will join us later.

9.01 a.m.

Tystiolaeth i Ymchwiliad y Pwyllgor i Gyfraniad Economaidd Addysg Uwch Evidence to the Committee Inquiry into the Economic Contribution of Higher Education

[4] **Gareth Jones:** Mae newid yn yr agenda, a byddwn yn gwahodd Airbus i roi tystiolaeth yn gyntaf. Yr ydym yn croesawu'r tystion, Dr Gareth Williams, pennaeth perfformiad a gwella, a Dave Manley, rheolwr hyfforddi'r safle. Oherwydd galwadau eraill, mae Airbus wedi gofyn am gael bod yn gyntaf i gyflwyno y dystiolaeth i ni, ac yr wyf yn siŵr y byddwch yn cytuno i hynny. Ar ôl Airbus, byddaf yn galw ar dystion o Athrofa Addysg Uwch Gogledd

Gareth Jones: There is a change to the agenda, and we will invite Airbus to give evidence first. We welcome the witnesses, Dr Gareth Williams, head of performance and improvement, and Dave Manley, site training manager. It has other business, and so Airbus has asked to present its evidence first, and I am sure that we would all agree to that. After Airbus, I will call witnesses from North East Wales Institute of Higher Education, Fforwm and the colleges. I welcome you, Gareth and

Ddwyrain Cymru, Fforwm a'r colegau. Yr wyf yn estyn croeso i chi, Gareth a Dave Manley, a gofynnaf i chi roi cyflwyniad byr. Yr ydym wedi derbyn y papur ac yr ydym yn cydnabod pwysigrwydd Airbus fel cwmni nid yn unig i ogledd Cymru ond i'r Deyrnas Unedig. Yr ydym yn edrych ymlaen at yr hyn sydd gennych i'w ddweud, a fydd yn sicr yn berthnasol i'r gwaith a'r ymchwiliad yr ydym yn ymgymryd â hwy ar hyn o bryd. Felly, cyflwyniad byr, os gwelwch yn dda, a chawn ni fel Aelodau gyfle i ofyn cwestiynau wedi hynny.

David Williams, and I ask you to give a brief introduction. We have received the paper and we acknowledge the importance of Airbus as a company not only to north Wales but to the United Kingdom. We look forward to hearing what you have to say, which will certainly be relevant to the work and the inquiry that we are currently undertaking. Therefore, a short introduction please, and we will then have an opportunity as Members to question you.

[5] **Dr Williams:** First of all, thank you for the opportunity to present early in your session. I will start with a brief introduction to the company, solely to highlight the association that we make between our ability to generate wealth as an organisation and the close association that we have with higher education institutions, recognising, of course, that that is the principal purpose of your inquiry—to understand the economic contribution of higher education.

[6] In terms of the evidence that we have presented, it was intended to be an oral presentation—I have provided the notes that I will speak to as a reference, should people wish to come back to specific items. As you mentioned, Airbus is a significant manufacturing employer within the UK economy, and, importantly, it introduces a large amount of employment as a consequence of this high technology work. The derivation of the success of the business is based on the skills and technology within that business, and, as a consequence, not only does the underpinning need of the company rely on engineering capabilities and skills, but also on research and technology. Therefore, there are linkages in two ways to the higher education sector in terms of the development acquisition of technology and through the transfer of knowledge, whether it be through formal education and training at a National Vocational Qualification level 4 or higher, or through access to academics who have knowledge which they can impart through short courses or specific consultancies.

[7] In total in the engineering and manufacturing sector, there are over 2,000 suppliers in the UK to Airbus. It is typical to think of those suppliers as being aircraft part suppliers. However, of those 2,000, only 400 supply aircraft parts; a number of the remaining suppliers are higher education institutions.

[8] In 2007, Airbus spent £445 million on research and development work. So, there has been a significant investment in research and development. That has led to Airbus UK being ranked as number eight in the top UK companies for research and development investment.

[9] There is a focus in the company on developing engineering capability, as I mentioned in my opening remarks. We have a particular understanding internally of what that means. I thought that it might be worthwhile to briefly highlight for members of the committee who are not familiar with the manufacturing sector where that focus may lie. In terms of engineering, it would lie in the fields of flight physics, aerodynamics, structures, producing the wing that we are familiar with that comes from the factory in Broughton; probably less familiar are the aircraft subsystems and the integration of fuel, hydraulics and electrics into the overall aircraft structure, and, of course, landing gear systems and integration, which is an important consideration in the design of wings, but the focus of which is in our Filton facility in the south-west of the country.

[10] I will move on to the specifics with regard to why these technologies have a

relationship to the higher education sector. We typically pursue our research and technology agenda through collaborative research programmes. We undertake a proportion of activity internally, for the purpose of developing specific technologies and to retain that IPR ourselves. However, we typically undertake collaborative programmes with a range of partner companies and higher education institutions. I will give examples of those, which I have identified in terms of the scale and the focus of their attention.

[11] In structures and manufacturing, we have a programme called ALCAS, advanced low-cost aircraft structures, which has a UK value of around €30 million. A second programme, Damascus, examines a particularly interesting aspect of manufacturing called additive manufacturing, where components are built up from layers of materials—effectively growing components. Again, €6 million is targeted to the UK's activity there. In flight physics, we have three specific programmes totalling €71 million. In systems, there are currently two programmes totalling €21 million. Perhaps most significantly in terms of collaborations and the added value that institutions can bring, we have a field called multi-disciplinary integration. These are not the specialisms that are typically seen in higher education institutions or indeed within our company, focusing as they do on a narrow and deep area of technology, but we have the capacity to bring together three or four areas of technology for an economic outcome; in our case, a fully installed wing.

[12] One of the outcomes of the research and technology programmes being undertaken with a number of institutions is patents. Evidence has been provided to you in the form of a graph on the rate of patent acquisition that the company has undertaken in recent years. That is only one measure of the outcome of the research programme. There are technologies that we would identify as another outcome, which we have in various guises and forms. Ideally, they would be in a form that enables us to take that technology off a shelf and apply it specifically to a product. Typically, that is not the case, because collaborative research programmes need to be almost at a pre-competitive level. As a consequence, the development of technologies generated with universities will need to be undertaken subsequently within the company to get them to a state where they can be physically applied to a specific product.

9.10 a.m.

[13] Perhaps a helpful mechanism that we use there is the system for classifying technology readiness levels. It is a widely used system that derived from some software development programmes in Carnegie Mellon University in the States. To characterise it for you, blue-sky research may be at technology readiness level 1 and a technology that is ready and able to be applied to a product today or tomorrow is at technology readiness level 7, according to the classification. As the technology progresses through different levels of maturity and gets closer to commercial application, it passes through levels 1, 2, 3 and 4 and eventually reaches level 7.

[14] A large part of our funding of universities is for work in the region of technology readiness levels 3, 4 and 5 and we would then apply development work internally within the company. In fact, we would tend to translate technologies available from the university to our product internally; we would go from technology readiness levels 5 or 6 to 7 within the company. We would tend not to fund work that was at technology readiness level 1 or even 2, which is very blue-sky and there may be a 20-year horizon; its economic value is difficult to assess at the point at which the work is being done. I offer that as a means of understanding our structure for considering the preparation of work that may be undertaken by us or with a higher education institution.

[15] That obligates us to understand the way in which higher education institutions work. As a consequence, there is an active engagement of Airbus staff with different higher education institutions around the country, across Europe and even, to a lesser extent, around

the world. The range of universities that we deal with is predominantly in the UK for UK-based staff, although not exclusively so. It includes the usual suspects in terms of the aerospace sector, such as Cranfield University, which was originally set up to have an aerospace focus. It also includes, more locally, universities in Manchester, Liverpool, Bath, Bristol and, of course, the North East Wales Institute of Higher Education and Deeside College.

[16] To help scale the level of activity, I have provided a profile of our level of spend with different higher education sector providers during 2007. You will see that the focus of the company is not on a single institution—we deal with a range of institutions—and, as indicated before, for some of those, the focus will be technology development, but for others it will be knowledge transfer, training and development. So, there is quite a split in that regard. That concludes my introduction of our perception of the higher education sector and where it can help Airbus.

[17] **Gareth Jones:** Thank you, Gareth, for a very useful and helpful presentation: your reference to technological readiness levels is a new point for us as a committee. It is now over to David Melding for the first question.

[18] **David Melding:** I am delighted that we are meeting in north Wales. It is very important during an inquiry such as this that we do not just stay in Cardiff, which I do not think would have sent the right impression at all. I have to say that I think that all the arrangements have been splendidly handled.

[19] On the patent graph, which is very interesting, I am a bit unsure about one thing. It refers to:

[20] ‘Continued improvement in the generation of patents from the local Engineering community’.

[21] Are these your patents, the patents of your suppliers or generally of engineering firms in your vicinity?

[22] **Dr Williams:** They are patents for Airbus. The phrase ‘local engineering community’ refers to the fact that, within Airbus, there are engineering centres in the UK, Germany, France and Spain. Therefore, the reference is to the UK development.

[23] **David Melding:** That is fine. What proportion of the patents would be from higher education?

[24] **Dr Williams:** The derivation of the patents will come from a variety of sources. I do not have a specific figure, but I can find that out and provide it as a note to you afterwards.

[25] **David Melding:** That would be helpful.

[26] Do any of these patents spin off in slightly different directions when they go to market, or are they always for direct applications by Airbus?

[27] **Dr Williams:** That is a very good question. I am not aware of an application that has a wider exploitation. I am aware of the fact that some of these patents are in the fields of material science, so it is quite feasible that a wider exploitation could happen. To that end, the patent acquisition is exploited by Airbus and, indeed, is open for exploitation by its owner company, EADS. Therefore, with the range of different business sectors that EADS operates in, it is conceivable that one of these patents could get a wider exploitation. I cannot give you a specific example off the top of my head, but I am sure that if I ask colleagues, they can

provide one.

[28] **David Melding:** Given Airbus's involvement in the various universities and further education colleges in Britain—a significant number of which are in north Wales—the level of your engagement on the boards of various universities is impressive. I would therefore like an idea of how you shape some of the higher and further education provision at the planning stage. Airbus is probably a best-case example, but, obviously, we are trying to emulate good practice elsewhere and, given the size of Airbus and its expertise and record, I would imagine that you have this down to a fine art. How does it work? You do not just turn up at a board meeting that lasts for an hour and a half, after which you go away. I presume that there is a real interaction. A little sketch of that would help us.

[29] **Dr Williams:** It is a very perceptive question, because one of the factors that guide success between Airbus and universities—and from my past experience in the university sector, this is not exclusive to Airbus—is the depth of understanding between the company and the education establishment. The closer that relationship is, the more opportunity there is for the educational establishment to influence the direction of the company and vice versa. So, you are quite right; just turning up for a board meeting once a quarter for an hour is fundamentally insufficient to generate the depth of relationship required.

[30] The word 'serendipity' is frequently used in research, and when a serendipitous moment occurs in a researcher's mind in the university sector, it is always nice to think that, because you meet frequently and have a depth to your relationship, when they think of how that new idea or that novel technique could see its way into the commercial sector, they will think of you. Without some continuity of relationship, that connection does not happen. I have heard universities cruelly described, not as organisations but merely co-locations of individuals working on subjects in which they have an interest. That is clearly anathema to a company that has a single objective and is an organisation of people around a single objective. Bridging that divide is actually part of the challenge, but being in a commercial organisation and recognising that, and being in the university and recognising that, goes a long way towards making the relationship work and towards making it more productive.

[31] As a consequence, you will see in the list of panels that a number of the universities have either industrial advisory boards or, as is the case in Manchester university, an aerospace research institute. It is a good example as it has recognised the need for that relationship and has researchers working in the industry sector in all fields, from the medical field through to the traditional technology field. In fact, the engagement of the university with a given industry sector was not strong until this board was put together.

9.20 a.m.

[32] So, they have a dedicated resource in the university to act as a face towards the sector. It acts as a channel of communication from the sector to the various disparate academic groups in the university. That model is increasingly used by different universities, and we see some benefit from that. We know what we do with the university and the university knows what it does with us. That may sound like a rather trite point to make but, where you have a range of individuals dealing with a large industrial corporation, it is possible to have many one-to-one links while the corporate relationship gets missed altogether. Therefore, the opportunity to direct focus and derive value can be missed.

[33] **Jeff Cuthbert:** Like David, I am delighted to be here in north-east Wales. I am aware of the distance from south Wales. I have been here several times, most recently with Carl Sargeant, who is sitting at the back, when we had an interesting tour of the training facility in Airbus; I remember it well.

[34] First, on a point of clarification, on the higher education spend bar chart and the Y axis, I can see that it is thousands of euros, but how many thousands of euros does each line represent because it is not marked on my copy?

[35] **Dr Williams:** The highest bar is roughly €1 million, so they are €200,000 each.

[36] **Jeff Cuthbert:** Thank you. On that, interestingly, although it is a relatively small spend, I notice that you use the services of the Open University in Wales. Is that on the issue of management? Perhaps you could clarify that point.

[37] **Dr Williams:** Yes, we have a number of employees who will do Open University degrees. Typically, they are at a level where they will do a Masters degree but wish to do it on a modular basis or where they have gone through a traditional engineering development through apprenticeship HND and have reached a stage in their career, perhaps in their late 30s or early 40s, when they want to complete a degree within work. So, it will be in one of two fields: either specifically to develop an engineering career to a point where an individual is capable of then applying for chartered engineer status to which we attribute a great deal of significance or, as you say, moving into the management field.

[38] **Jeff Cuthbert:** I know that time is going on, so I will brief. On your relationships with higher education, the relationship with regard to knowledge transfer and the knowledge economy and science and technology is clear, but do you involve higher education often to develop bespoke courses, whether just for your immediate purpose or as part of, or credit towards, a vocational degree? On partnerships, are the sector skills councils involved at the higher level? The SSC for Science, Engineering and Manufacturing Technologies springs to mind, for example. So, is there a tripartite arrangement here?

[39] **Dr Williams:** There is a close relationship with SEMTA. On your original point on bespoke courses, we have developed specific management training courses with higher education institutions. We have also promoted a mechanism of cross-accreditation between universities. So, an individual could undertake a modular degree and do two of those modules in Manchester, one at Warwick and then a couple at Lancaster. Those modules are cross-accredited towards the award of a degree. That has been a useful mechanism for us.

[40] On the training that we have specifically arranged, the version that springs to mind is that with Lancaster University, which provides management training at different levels, specifically designed to lead to an award of an Airbus certificate in management. People move on from that to a programme that we call World Class Leaders. Through this training, we endeavour to make the best practices in management available to our junior and middle managers to learn from and to develop within the company.

[41] **Sandy Mewies:** I have always been impressed by the way that Airbus interacts with education establishments, and I want to develop David's questioning further. He talked about the relationships between you and the institutions, but how proactive are the educational establishments in providing you with what you want? Something struck me when you talked about a moment of serendipity when a researcher might think of you. We were talking about the Gibson review, which you may or may not know about, and there was a suggestion from Simon Gibson—which I think the committee was enthusiastic about—of having advisory panels. They were called advisory panels, but I saw them as being like football scouts, going into universities, seeing good ideas and developing them. The point that was being made was that, sometimes, ideas are developed in one way by academia, because that is the research focus, but that they may have a totally different application. Is there any room in that relationship between educational establishments and manufacturing and so on, for that third party? Do you see any value in that?

[42] **Dr Williams:** I do, but whether it should be an independent third party or a collaboration between the two respective parties is probably the key point. It is a difficult relationship to manage, if one is just scouting for good ideas and then offering them to companies. A good example is that an ex-colleague recently sent me a piece of work on a new material that is being developed and asked whether it could be exploited. In my field, at Broughton, it cannot, but perhaps it could be in the field of helicopters. So, a chain starts of passing that opportunity on to try to find the right location. It strikes me that if an idea is strong enough or well enough articulated, it will find the right home. However, it is difficult to identify the potential home of technology, if you are not familiar with the related sector of industry in the first place.

[43] I do not feel that I am making my point clearly; I am trying to make a point about putting an interlocutor between a university and a range of businesses. One imagines that small and medium-sized enterprises do not have the resources that we have to scout the university sector, so how do they gain access to the potential technology? That being the case, there is an obligation on the university sector to—I do not like this term—reach out to communicate what opportunities exist in their university for smaller companies to exploit. The key point, however, is that someone is trying to get a message across but the party on the other side must be listening; just because someone in the middle is telling you that you should be listening at a given point in time, does not necessarily mean that the university's idea will get heard.

[44] I followed a particular track in answering your question, but I am not sure that I hit the nail on the head. Certainly, we have a number of examples of where ideas are marketed, and the marketing can be too heavy for an idea that is at technology readiness level 2 or 3. You cannot be certain that that idea will generate economic value, because there is still a development phase to be gone through.

[45] **Sandy Mewies:** I have two short questions—

[46] **Gareth Jones:** Before you follow that up, Sandy, we were talking about getting messages across and there is some interference with the sound system. It may be that a mobile phone is still on, so please check. I have been told that there is some interference, and it could well be because of that.

[47] **David Melding:** I am innocent.

[48] **Gareth Jones:** As always. [*Laughter.*] Please continue, Sandy.

9.30 a.m.

[49] **Sandy Mewies:** You talked about the fact that you have relationships with education institutions, not only in this country but in the United States. Are there any differences in your relationship with those in the United States that make it better or worse than your relationship with institutions in the UK? If there is good practice, perhaps it can be utilised here. I have a third and final question. There has been an issue with basic skills; what is the current position on that?

[50] **Dr Williams:** I will take the question on best practice and ask Dave to answer the question on basic skills. One element of good practice that is abundant when dealing with the American universities in particular or the university sectors derived from the American model is that they are far more active and effective in exploiting the alumni network. The UK sector is particularly slow in that regard. As a consequence, each university generates its own potential market every year. I read in the papers that the North East Wales Institute of Higher Education has 8,000 students, with around 4,000 full-time equivalent students. Potentially,

therefore, it has a market of 4,000 to sell to each year. However, there is an investment on the part of the university sector to maintain that relationship and to keep track of those people.

[51] I will give you a good example of where it works. I was at a presentation in Liverpool, no more than a fortnight ago, by the vice chairman of Emirates Airlines, who was an alumnus of the University of Liverpool. The chairman of ARM Holdings, a significant industrial group, is another alumnus and a significant benefactor of the university. The American university model is very strong at exploiting that network. Undoubtedly, individual departments or individual academics maintain those networks, but institutions in the UK typically do not. So, there is a real opportunity for better practice.

[52] A second area where there is perhaps an opportunity is cross-accreditation, or joint degree provision, where, particularly with the emerging markets in China and India, there is now a trend towards universities accrediting degrees that are substantially delivered in India or in China. Indeed, recently, there was a good case of an American university establishing a campus in Dubai. The degree is awarded by the American university; the provision may be by some of the core staff of the university or by trained and accredited staff at a local level. That, again, is something that we need to be cognisant of, because there is an opportunity through that to gain access to a wider network and a wider potential marketplace.

[53] I will stop there and ask David to address the question of basic skills.

[54] **Mr Manley:** Airbus UK—certainly within the Broughton plant—was one of the first companies to sign up to the basic skills pledge. We have worked with basic skills since then and have subsequently obtained the pledge. We do a number of roadshows two or three times a year, working with our colleagues from Deeside College as well as through our learning and resource centre on site to engage our employees in basic skills and use it as an introduction to learning, e-learning, moving on through Learndirect and so on. Basic skills have also been introduced for all of our apprenticeship programmes. So, everyone undertaking an apprentice programme—whether a new craft apprentice or an adult apprentice—completes a basic skills assessment at Airbus UK.

[55] **Gareth Jones:** Thank you very much. I think that Janet Ryder has the final question.

[56] **Janet Ryder:** I was interested in what you said about universities that have encouraged—or, in some cases, forced—their departments to share research resources. We have seen excellent examples of that in York and in America. I can see huge advantages to the universities in developing intellectual property spin-offs across different departments. As a large company, I presume that you follow your own path and know exactly what you want to get out of it, but if we are looking at the situation generally within Wales, what do you think the benefits of that would be if we encouraged all of our universities to go down the track of looking at smaller and medium-sized businesses and the intellectual property that they could develop for them?

[57] **Dr Williams:** One of the clear advantages is that the traditional academic life has meant taking a path of developing a depth of knowledge in a specific subject, which becomes your subject—certainly in research terms, rather than in teaching terms. There is quite a challenge, therefore, in terms of openness and behaviours when it comes to sharing some of my subject with others. As a consequence, I think that opportunities are missed, unless there is a structure within the university or around the university that encourages some higher degree of collaboration. That portrays a somewhat pessimistic view of our academic institutions and I do not mean to do that: if anything, it is a source of pride to individuals that they have a very deep level of knowledge of their subject and they are passionate about their subject. However, in terms of deriving economic value from that, unless there is a very particular and unique set of circumstances, it would be typical that that knowledge would

have to be used in combination with others to derive a value from it. Secondly, I think that all the best research is done on the boundaries of subjects; in fact, it is where subjects interact with one another that knowledge is typically advanced. So, it is also of benefit to the university institutions to consider how they encourage their researchers to test those boundaries and develop them.

[58] I think that you made reference, if I remember correctly, to SMEs in particular. The opportunity does exist, and has been encouraged over many years, for universities to start spin-off companies or incubator units. This seems to me to be quite an elegant solution to the problem of how you can get technology into the smaller business sector—using the incubator units to develop the small to medium-sized enterprises. So, the real challenge, therefore, is how you get research results into well established small to medium-sized enterprises. There is a well founded approach to generating new small enterprises from universities. The OptIC technium, which is just along the road at St Asaph, is probably a good example, where there are a number of smaller business units and, in fact, it is good to see that the unit is structured so that they can grow within the confines of the unit and then spin off separately. I think that the need to encourage collaboration within the university sector is good for the university itself. Having a better understanding of the commercial world within the university is an advantage of the incubator units, but that is not to say that a degree of self-interest does not come into it if there is an opportunity for academics to develop those businesses themselves and generate income for the university and for themselves, as individuals, or as members of the company.

[59] **Gareth Jones:** On behalf of the committee, I thank you both for your attendance, in the first instance, but also for sharing your expertise and your knowledge in this field with us. You have certainly brought a new dimension to our review. That is something that we have identified and we are very grateful to you. I wish you and the company all the very best, because we know of the significance of this company; it is vital to us. It is also very pleasing to note that it means that we are at the forefront of technology and change in that respect. Therefore, many thanks to you and we wish you all the best. Diolch yn fawr iawn.

[60] **Dr Williams:** Thank you, Mr Chairman, and to Members.

9.40 a.m.

[61] **Gareth Jones:** Yr wyf yn ymddiheuro bod trefn yr agenda wedi newid, ond yr ydym yn cael cyfle yn awr i groesawu cynrychiolwyr o Athrofa Addysg Uwch Gogledd Ddwyrain Cymru. Croeso cynnes i'r Athro Mike Scott, prifathro a phrif weithredwr yr athrofa, a hefyd i'r Athro Graeme Wilkinson, prifathro cynorthwyol, ymchwil, ysgoloriaethau ac efrydiau ôl-raddedig a deon y gyfadran busnes, gwyddorau a thechnoleg. Yr ydym hefyd yn croesawu Andrew Parry, pennaeth cyfathrebu corfforaethol. Yr Athro Mike Scott, yr ydym yn ddiolchgar iawn i chi am eich papur; yr ydym wedi cael cyfle i ddarllen ei gynnwys, ac yr wedi ei ganfod yn dra defnyddiol, ac yr wyf yn siŵr y byddai Aelodau yn cytuno. Gofynnaf i chi wneud cyflwyniad byr o tua phum munud, a chawn gyfle wedyn i ofyn cwestiynau i chi.

Gareth Jones: I apologise that there has been a change to the order on the agenda, but we now have an opportunity to welcome representatives from the North East Wales Institute of Higher Education. I extend a warm welcome to Professor Mike Scott, principal and chief executive of the institute, and also to Professor Graeme Wilkinson, assistant principal, research, scholarship and postgraduate studies, and dean of the faculty of business, science and technology. We also welcome Andrew Parry, head of corporate communications. Professor Mike Scott, we are very grateful to you for your paper, which we have had the opportunity to read, and which I found to be very useful, as I am sure Members will agree. I ask you to make a short presentation of about five minutes, and we will then have an opportunity to question you.

[62] **Professor Scott:** Thank you. As you know, Chair, it has been announced by the UK Government that we will soon, subject to the Privy Council, be made into a university, and we are very grateful to the UK Government, the Assembly and our various partners for the help that they have given us in that development; however, we must wait, of course, for the decision of the Privy Council. I am delighted that we are here in Deeside College today—we see ourselves as a higher education institution with very strong partners in the further education sector, and in Deeside, Llandrillo and Yale colleges, we have three tremendously strong further education colleges that are working in partnership with us. We are also working in partnership with the schools sector; I hear on the grapevine that the St Joseph's Catholic High School in Wrexham will soon have some pretty good news about its inspection. This is all very good for north-east Wales, in that the schools sector, the further education sector and, I hope, our elevation to university status puts us in a very strong position to work in partnership.

[63] In becoming a new university, we will be a fledgling university and it is quite daunting in terms of the company that we have to keep. However, you are known by the company that you keep. We have been aided in this development by some big players; for example, Oxford University, through the Sutton Trust, worked with us for three years as we moved towards university status, allowing some of our students to experience Oxford, and also allowing us to have fellowships to help with our research. It is research that is the defining feature of a university, and it is research that underpins the type of work that we would do with industry and companies in the area. Other universities are helping us at the moment, such as the University of Liverpool and Keele University. Through the OpTIC technium, we have developed three research centres, but we are also working with other universities such as the University of Cambridge, University College London and Cranfield University. Further afield, we are working with universities in America, notably Georgetown University, in Russia with the Bauman Moscow State Technical University, and a number of universities in China and India. This is all relevant to what has just been said by our colleagues from Airbus.

[64] Linked to that, we also work with companies ranging in size from big companies to small and medium-sized enterprises, which include a range of institutions. I was very interested in the comment about the alumni, because our relationship with Jaguar UK, for example, is through an alumni who is now the technical director of Jaguar UK, just over the water at Harewood. So, all of that is helping us as we start off on this new venture as a new university, based, of course, on nearly 20 years as a HEI.

[65] I am privileged to sit on the industrial committee of Universities UK. It is chaired by Chris Snowden, the vice-chancellor of the University of Surrey, and Tim Wilson, the vice-chancellor of the University of Hertfordshire, is also a member. Universities UK and its industrial committee understand how modern universities in England interact with business and with industry—not only are they developing the research that is helpful for industry, they are also developing the curriculum. Under Chris Snowden's leadership, 80 per cent of the University of Surrey's undergraduate students now take part of their course in industry or in business. That goes across the spectrum, from the high-tech subjects right the way through to the performing arts. In Chris Snowden, you have someone who has experience of the higher education sector in America, experience of industry, and now he is the vice-chancellor of the University of Surrey. He is almost an iconic figure in terms of the development, or the revolution, going on within the context of universities.

[66] Again, that links in to some of the things that Airbus's representatives were saying about trying to move universities and their research from individual interests to some managed, strategic way forward. I believe that, as a new university, with this kind of help and

back-up, which we need to survive and develop, we can take those as models and develop our research and curriculum strategies.

[67] I will hand over to Professor Wilkinson, who might say a little bit more about research.

[68] **Professor Wilkinson:** As you will have seen from our written evidence, NEWI has established an important reputation for itself in a number of specialised areas of research. For example, our hydrocolloid chemistry research has been taken up by food companies globally and developed on the back of our long-standing expertise in water-soluble polymers. Our research and consultancy in this area provides income to the institute itself and to the local economy. In fact, applied research and consultancy is fundamental to NEWI, and it is undertaken across the institute in a wide range of subject areas. We have been a highly successful academic partner in a number of knowledge transfer partnerships, which are of particular benefit to local businesses and SMEs. During the last academic year, we had 13 such programmes, which is one of the highest figures in Wales.

[69] Overall, we at NEWI believe that applied research and development will create the new, high-value, knowledge-intensive industries and businesses that are the key to the future economic prosperity of our country. It is fundamental to the role of higher education institutions to carry out that research and development and to work closely with other public and private sector bodies, first to ensure that the fruits of such research are converted into sustainable businesses, and, secondly, to ensure a ready supply of highly trained, skilled employees at various levels to make those new businesses a success.

[70] **Mr Parry:** Hoffwn ddweud rhywbeth am yr ochr gymdeithasol. Yn ogystal â'r datblygiad economaidd mae'r athrofa addysg uwch yn gyffredinol yn ei sicrhau i'r gymdeithas, mae ochr gymdeithasol sy'n dod â manteision economaidd yn ei sgîl. Yr wyf yn meddwl yn arbennig yma am esiampyl o waith yr ydym yn ei wneud â theatr leol a hefyd ym maes chwaraeon a gorsaf radio gymunedol, Calon FM. Maent i gyd yn gwneud cyfraniad mawr tuag at ddatblygiad cymdeithasol, sy'n dod â manteision economaidd yn ei sgîl hefyd.

Mr Parry: I would like to say something about the social side. As well as the economic development that the higher education institute generally brings to society, there is also a social side that brings economic benefits. I am thinking in particular of the work that we do with a local theatre, and about sports and the community radio station, Calon FM. They make a great contribution to community development, which in turn brings economic benefits.

[71] **Gareth Jones:** Yr ydym yn ddiolchgar i chi am y cyflwyniad hwnnw. Yr ydym yn cydnabod y gwaith ardderchog mae NEWI yn ei gyflawni a'r ffaith eich bod yn ddigon dewr i ddweud bod lle i wella, symud ymlaen a sicrhau twf yn yr economi leol ac yn ehangach. Awn at Aelodau am gwestiynau, gan ddechrau gyda Jeff Cuthbert.

Gareth Jones: We are grateful to you for that presentation. We acknowledge the excellent work that NEWI has achieved and the fact that you have been brave enough to note that there are grounds for improvement, for moving on and for ensuring growth in the local and wider economy. We will now have Members' questions, beginning with Jeff Cuthbert.

[72] **Jeff Cuthbert:** Thank you for the written and the oral presentations, and I add my congratulations; I trust that you will get university status soon.

9.50 a.m.

[73] I will ask my questions together to save time. In point 2.1 of your paper, under

‘Background to NEWI’, you refer to widening participation. That concerns us greatly in that we want to ensure that higher education courses are made as available as possible to all sections of society, particularly those that traditionally have not seen HE as a way forward for them. So, could you say a little more about how you have developed your widening participation agenda and the inclusion arrangements?

[74] Linking into employers, you will not be surprised to hear me ask what type of partnership arrangements you have with the sector skills councils. I note that you work with Skillset, particularly in the development of your media centre, for the creative industries. Can you say a little more about that and whether you also work with other SSCs? We are particularly concerned about that because, given the preponderance of SMEs in Wales—we have heard from Airbus, but it is a powerful player in this—how effective do you find the SSCs in representing their various occupational areas, particularly where we have many SMEs?

[75] **Professor Scott:** I will take the widening participation point and my colleagues will come in on the SSCs. Two years ago, the figure for Welsh domiciled students who were studying at NEWI on higher education programmes was 67 per cent. They came from households earning less than £17,000 a year. That is a huge percentage. At the same time, we were able to say that 93 per cent of our graduates were going into meaningful graduate employment or into further study within six months of leaving the institution. Again, that shows the value added that is always the case with widening participation. There is also the issue of withdrawals between students coming in and the actual graduation, which we have to work hard at to ensure that we provide the necessary support to students who are coming in from communities that would never have thought that their children or partners, or in some cases, themselves could enter into lifelong learning and higher education.

[76] How do we do it? We started in 2001 by saying that we wished to be a market-led, student-centred university of international significance that is open to all. We had a lot of flak about that ‘open to all’. Universities are not open to all was the response. ‘How can you just be open to all? You will be dumbing down standards.’ People did not understand that we were saying that you had to make the university itself accessible and get away from the fear that some people have of just crossing the doorstep and going into a university. People might have the perception that we wear funny clothes and have funny titles: professors, PhDs, and so on. For many of us who have been to university—of three brothers, my eldest brother was the first to go to university and I went—we are used to it, but I remember the fear of going into university and finding that, at the one I went to, I had to wear a gown even to get my food. I did not even know how to wear a gown. Thank God those days have gone. However, we thought, ‘Look, people just do not know what it is like’, so we tried to bring people into the university and onto the campus without having to be enrolled. For example, we developed a recording studio, which opened things up for the kids who were trying out bands. So, they could come and have a disc made. We opened up the sports and arts facilities, and ensured that the arts facilities were not just for high art. We will still have the Royal Liverpool Philharmonic Orchestra, the Hallé Orchestra or whoever coming to us, but we open up the arts facilities for all kinds of things.

[77] We open it up for schoolchildren and get them in: make it their university. That has been a real aim and concept of ours, and it is why we opened Technquest@NEWI, where we have had nearly 200,000 visitors, mostly children, since it was opened in 2004, and also to try to get out into the community. Technquest goes out into the community, working with schools and community centres; let us do the same. We are trying to get away from the concept of a university that is up on a hill, which you must climb up to get to, and, often, when you have climbed up to it, you find that, after a little while, people throw you back down again. You must try to stop that from happening, without dumbing down standards. You must always keep a university standard, but must always encourage people. That has

been our philosophy, and it is absolutely embedded in everything that we do. It is fundamental to the institution.

[78] As far as the sector skills councils are concerned, yes, we do work with them. Perhaps Graeme can say something about that.

[79] **Professor Wilkinson:** We do work with the sector skills councils, particularly at the point of curriculum development, when we are developing new courses. To give you an example, we are about to start the construction of a brand new design, technology and media centre at NEWI, which is intended to be an innovative, interdisciplinary centre. It will bring together academics from our school of art and design, academics from our school of science and technology, and our computing and communications academics. The aim is to bring together people working at discipline borders, where they can create interesting and exciting courses. In doing that, we will be bringing art into computing, for example, in a course on computer games, which is an exciting, growing industry. We work closely with sector skills councils on those kinds of developments, and, in relation to that particular area, we are working with Skillset.

[80] In addition, we will shortly be introducing a new course related to instrumentation, automation and control, which is basically being developed for the utilities industry. That course has been put together by our engineering academics, working closely with the utilities industry, and also the sector skills council that represents that field. In a sense, it is a three-way partnership between the academics, the industries and the SSCs in that process. So, it is at that course-development stage that we work most closely with the SSCs. Having said that, I am sure that we could do more to work with sector skills councils, for, although we do work with them, I am sure that we could do more, and we need to work more on that in the future.

[81] **Jeff Cuthbert:** Quickly, on that last point, could they do more to work with you?

[82] **Professor Wilkinson:** I am sure that they could. We have held joint meetings with representatives from a number of sector skills councils at NEWI, and we need to do more of that, so that they will get to know more about what we do, and we will get to know more about them as well. We need to find mechanisms to encourage that kind of relationship.

[83] **Professor Scott:** We have certainly been proactive.

[84] **Gareth Jones:** It is all being recorded here. Thank you very much for that.

[85] **Kirsty Williams:** Thank you very much for the paper. I would like to concentrate on section 5, which is on the development of entrepreneurial skills and new business formation. I note that you employ an entrepreneurship developer, who takes the lead on this. Is that initiative funded by your own resources, or is it funded by resources for which you have applied from some Government programme? What kind of evaluation, if any has been carried out, has there been of the impact of that particular post?

10.00 a.m.

[86] I note the number of companies that have been established as a result of the knowledge exploitation fund programme, and you say that they now employ 50 people. Is that 50 people each or is it 50 people across all the companies that have been established? You say that you have been assisting them by providing business incubation spaces in your innovation centre. For how long do people stay in that innovation centre? Are they still there, or do they stay in your innovation centre for six months, 12 months, or even 18 months and then moved on? You state the importance that you place on entrepreneurial skills, but is that mainstreamed throughout your courses, or do you specifically target individual programmes

or individual courses that you offer?

[87] **Professor Scott:** I will start, and then I will hand over to my colleagues. Andrew will have a word about the business incubation units, but I will hand over first, in a moment, to Graeme.

[88] As far as entrepreneurship is concerned, the new university has decided that its mission is twofold. The first part is the employability of its graduates, and the second is the socio-economic development of its region—full stop. That is what this university is about. Other universities are not necessarily about just those two things, and I have no problems with that. Other universities might say that they are about pure research, or have research and development and so on as their fundamental area. I have no problem with that because I think that different universities need different missions, and then we can work together in a complementary way. If we are about the employability of our graduates, and if we are about the socio-economic development of our region, then every single course in the university, in going into validation, has to demonstrate to us, through the validation process, that it is marketable in terms of the students that go out from the course, that the students will be employed and that the course is adding to the region's economic development and social development.

[89] I will just say something about how universities are measured. Traditionally, they have been measured according to how many people get first-class honours degrees, how many get upper second-class degrees, and how many came in with three grade As at A-level. You get all these league tables that are based on those traditional measures. I want universities to be measured by how successful their graduates are once they are in employment. Are they good in employment? Are they good in business? Are they doing the job they should be doing? I was on a committee in London, where a man called Chris Hayes said that he had talked to a bunch of vice-chancellors and asked, 'Where are the best engineers in the world? Where do they come from?'. The vice-chancellors said, 'They come from Britain, of course; they come from our universities'. He said, 'Well, if that's the case, why is it that we can't build a bridge across the River Thames without it wobbling? Why is it that we can't actually develop the Jubilee line without getting the Italians in to help us?'. There is something about the non-relationship between very high profile scores in the form of first-class and upper second-class degrees and so on from universities and what happens afterwards. We have to look at that very carefully in the university sector, and we have an opportunity to do so. I will now hand over to Graeme.

[90] **Professor Wilkinson:** If I recall correctly, you asked about the entrepreneurship developer that we employ. I believe that that individual has been employed using money that we obtained in the form of a grant from the Government. I forget exactly which scheme it is that provides that support, but I think that it is supported by external funding at the moment. However, that is time-limited, and I strongly believe that we will wish to continue with that kind of post long-term, whether or not there is support from the Government for doing so because, in a sense, we feel that that post has been fundamental to what NEWI is doing. There are individual rounds of workshops and events for students across the institute in almost all subject areas, and large numbers of students have participated in related programmes. It is not just about giving students the knowledge and the skills to set up their own businesses; it is about making them more entrepreneurial in their attitudes as well, so that when they join even well established companies, they become very good employees with bright ideas, and they look for ways to turn those ideas into good business opportunities. It is about creating that kind of culture and feeling among those graduates—it is not just about them setting up businesses.

[91] You asked about the number of employees. I believe that the total of 50 is probably for the companies overall. They are mostly small companies in the early stages of start-up.

We do have business incubation space and the companies in there are given the space for a certain fixed period of time; it is normally around a year. They can request extensions, but whether they get those depends on the availability and demand from other companies. So, overall it is time-limited for them, but the idea is to give them a good start in life, so hopefully they will then go on and become successful after that.

[92] **Professor Scott:** Only the day before yesterday, we had a business breakfast, with 50 companies coming to the campus. That was organised by Mary Bradley from the enterprise unit. So, we are bringing the businesses to us, which, again, is part of opening up the whole of the institution to everyone.

[93] **Mr Parry:** I just want to say more about the incubator units. They have 100 per cent occupancy rate at the moment and there is a waiting list, so they are highly successful. One example of a business that has developed from there is a company called iGroup, which has developed software to help people working outside offices so that they can collect data and get that back into the office. It now has a turnover of £500,000 and it has been in existence for only a couple of years, so it is a good example.

[94] We are also hoping to further develop the incubator unit. With many of the capital investment programmes that are taking place at NEWI, it is hoped that more units will be available, so we will be able to take up some of the demand.

[95] **David Melding:** It strikes me that some of the entrepreneurial work that you do is dependent on public funds and the continuation of those as well as of structural funds in terms of the GO Wales initiative. Do you have any comments about how your core aims will sustain that activity if those funds are withdrawn?

[96] I was impressed by the fact that, under the link-ups that you have with SMEs, around 74 per cent of your placements turn into graduate-level jobs; that strikes me as extraordinary. I suspect that we are not talking about many people. Could you give us some indication of how many there are? We do not have a number here. I do not want to be disparaging because this is difficult and new work in many respects for our economy, but some idea of the volume of placements might be helpful. We have covered the other questions, so I just ask for those points to be addressed.

[97] **Professor Scott:** Sorry, I am not sure—

[98] **David Melding:** I am sorry. In paragraph 4.3, you outline the cost of the GO Wales programme: part of that is from European structural funds and the rest is from that specific GO Wales initiative. You say that feedback from most companies has been mostly positive and that, since 2005, 74 per cent of placements have turned into graduate-level jobs. Could you quantify those placements?

[99] **Professor Scott:** I am not sure how many there are, but I can provide a note on that. It would be wrong for me to have a guess and I do not have that to hand. Our dependency on public money is a big issue for us. We are far too dependent on Government funding across the whole of the institution, and we have set ourselves targets to reduce that year by year. We have started to be able to do that. You do it by being successful in the marketplace and by bringing in funding from elsewhere. We are gradually becoming known for certain areas of research. We are getting grants and money from research and setting up our own spin-out companies. We just set up a spin-out company called Aquaheal Ltd, which produces gels that you place over wounds, whether after an operation in a hospital or just for minor wounds. The gels that have replaced plasters that are currently on the market do not allow the skin to breathe. However, through the researchers at NEWI, Aquaheal has come up with a gel that allows the wound to breathe, and so to heal better. So, we set up that company.

10.10 a.m.

[100] We have just signed a contract with the largest concrete additives company in the UK for a polymer compound that will be added to concrete, which gives a smoother flow of concrete. This particular additive manufacturer has a contract with the middle east. We are pretty hopeful, because they are building quite a few buildings over there, that we are going to start to get some real input there.

[101] On our new research, yesterday we were at IQE in Cardiff, which is an incredible company that grows semiconductor wafers for the optoelectronics industry. Like the growth that our colleagues from Airbus were talking about yesterday, that industry is advancing so quickly that you can work with it only to get the right research ready, to look at the markets, and to then get some income back in. One big research area that we are currently developing in is smart clothes; we will not need mobile phones soon—the data sets will be in our clothes.

[102] **David Melding:** They will not be in mine. [*Laughter.*]

[103] **Professor Scott:** I do not believe that we will market to our age group—if I may say so.

[104] **David Melding:** That is a fair point. [*Laughter.*]

[105] **Professor Scott:** I think that we will market to a different age group, which wants it.

[106] **David Melding:** Touché.

[107] **Professor Scott:** It frightens me to death. However, if we can capitalise on these new markets, gradually, like the universities that I have mentioned, such as the University of Surrey, we will become far less dependent on Government, and I believe that you and we will be happy.

[108] **David Melding:** I welcome the note on numbers, but I do not want to lose sight of the point that 74 per cent of these placements seem to be turning into graduate-level jobs. Can we verify that? Even if it is a fairly small scheme, that seems to be a remarkable success.

[109] **Gareth Jones:** Yes, that must be acknowledged.

[110] **Professor Scott:** We will get you written evidence on that.

[111] **Gareth Jones:** Diolch am hynny. **Gareth Jones:** Thank you for that. Sandy Sandy Mewies sydd â'r cwestiynau nesaf. Mewies has the next questions.

[112] **Sandy Mewies:** I do not believe that anyone can deny the growth that there has been in NEWI—I have seen it happen over the years. However, what I am particularly interested in and wish to discuss with you is your relationship with OptTIC technium at St Asaph. My first question is about OptTIC technium, and the second is general and is not meant to refer specifically to that.

[113] You have three research groups in the OptTIC technium at present. How will being there help them realise their commercial potential? Secondly, we have heard evidence again from the Gibson review and from Professor Ken Board, who was involved in the original idea. They have expressed some disappointment that, while the techniums were intended as a flow through—you went in, you did the business, and moved out—there was a feeling that they had become somewhat of a property initiative. Is that your perception, and, if so, is it

stifling developments from academic institutions, or do you not see that at all?

[114] **Professor Scott:** No, we do not see it as a stifling. The OpTIC technium has been a huge asset to north Wales. We began with a research unit there, working within holography, which was led by Professor Hans Bjelkhagen. Some of the work that is being done is hugely complex in developing three-dimensional imaging. However, if you can get that right, and it does take time, some of the issues that you can tackle are amazing. For example, I have had discussions with Professor Bjelkhagen about creating a 3D image of someone's head showing where all the blood vessels are, and so on, to allow a surgeon to operate at a reduced risk. That is major research and it takes time to perfect it and get it out into the marketplace, but the point of the OpTIC technium is to try to get that kind of thing out into the marketplace.

[115] The other areas that we have looked at are polymers and solar panel development, and one of the reasons that we visited IQE yesterday was to try and link the work that is going on within solar panel development with a business in Cardiff that is clearly exploiting it in the right kind of way. The researchers in the technium are working in a slightly different way to the people in Cardiff, and we are trying to bring the two together—but Graeme is more of an expert on this than I am.

[116] **Professor Wilkinson:** Immediately after this meeting, I will be going to the OpTIC technium where our researchers are meeting with this company from Cardiff, which is already very well advanced in the semiconductor industry. We will be looking at how we can link developments in the solar energy technologies with their production facility with a view to creating a potentially world-leading industry. That meeting will take place immediately after this one. We feel that the OpTIC technium is a considerable asset for north Wales and for NEWI—we have expanded our activities there recently, going from one research team to three. We are also working there to introduce a foundation degree to train highly skilled technicians for these high-value industries, and we are using the OpTIC technium's photonics academy as a means of training those specialists.

[117] **Professor Scott:** I must say, Chair, that I am still recovering from yesterday because the chief executive of IQE is a Dr Mike Scott and, like me, he was born in the midlands; it was bizarre to be Mike Scott talking to Mike Scott, I can tell you. [*Laughter.*]

[118] **Sandy Mewies:** Can I just come back in? I did say that there were two different questions, really. My first point was specific, and my second point is about the evidence that we have been given that the techniums may not be operating in the way that was originally intended. Companies were supposed to come in, establish themselves and then move out, creating room for others to come in. I wondered, and I am not referring particularly to St Asaph, whether you have seen any evidence of that.

[119] **Professor Scott:** I was talking to someone last week who has a company in the OpTIC technium, who was telling me that they were staying in St Asaph, but moving out to a building opposite the technium. That is anecdotal evidence. I would not like to comment on the techniums in the south, but I think that the OpTIC technium has been very good for our development. Whether they work for the more established universities is a question for them. I could not comment.

[120] **Sandy Mewies:** Fine—so it seems to be working well for you.

[121] **Professor Scott:** Yes.

[122] **Gareth Jones:** Thank you for raising that, Sandy. Just before I ask Huw to come in, you mentioned quite rightly that there is a gap, sometimes necessarily a prolonged gap, between the idea, the identification of intellectual property, and the commercialisation.

However, there is a tendency in many of our institutions for the IP to be identified, and then for there to be a delay in the commercialisation—sometimes simply for economic or monetary reasons, rather than letting the idea go, letting it be commercialised, and benefiting in terms of shareholding or whatever. That point was made quite strongly, so I just ask you to reflect upon it, because it is obviously vital that, in this ever-changing world, once the IP is identified, it is made use of to benefit the economy. That point was made by Professor Board, and I think that I am right in presenting it that way.

10.20 a.m.

[123] **Professor Scott:** I agree. You should get it out, market it, develop the spin-out companies with it or go into partnership with other companies as fast as you can. As soon as you have done that, you can get on with some other work. The university is there, and is central to the economy; the kind of university that I am talking about is not there just for itself.

[124] **Gareth Jones:** We hope that the review will enable that to happen. If there are barriers, we need to break them down.

[125] **Professor Scott:** If you can do that through a very young university, Chair, we would be happy.

[126] **Gareth Jones:** Fine. Huw Lewis has our final question.

[127] **Huw Lewis:** I have always been impressed by Professor Michael Scott's commitment to, and understanding of, access issues in the wider sense, but I want to tease out a little more detail on your children's university initiative, which caught my attention immediately. What is the philosophy behind that? How does it work? Is this a sort of annual event, or is it ongoing through the academic year? Are you committed to keep going with it? What kinds of successes are you seeing? Has it grown out of concerns about access to higher education, or is there a broader social purpose to it?

[128] **Professor Scott:** It has a broader social concern, but it has also grown from the philosophy that we are open to all. The idea came from a model that started in Birmingham, but we were the first to develop it in Wales.

[129] Many children have nowhere to go during the holidays, and dysfunctionality begins in society at an early age, we believe. If you can make learning fun through the holidays, perhaps you will start to change attitudes and cultures. So, the children come in, they go through grades—bronze, silver and gold—they have a graduation ceremony, and they work their way through. We then link that activity to schools, which we have a relationship with in any case, and our students volunteer to mentor in schools. That work is part of their own development, which is terrific, but it means that they are also working for society by working with kids and helping them to get their certificates. We also hold graduation ceremonies for them throughout the year.

[130] It started well in Wrexham, and it developed at Trinity College Carmarthen where we opened a branch, and we have since developed it across Wales. We had a visit from a headmaster working in Mexico City, who was originally from the Rhyl area and had come home to visit his parents, and he asked whether we would like to develop the initiative in Mexico City, and so that is what we are doing. It is incredibly successful, and it is just about breaking down barriers. It is a children's university, which means that children are on campus, dealing with students and staff, which is terrific. It is great for our education department, because it originally arose from our strengths in initial teacher training, and it grows from our relationship with Technique@NEWI. So, it is all part of the philosophy,

which, as I said, is ingrained in everything that we do.

[131] **Huw Lewis:** It sounds very interesting. We will not have the time to explore it this morning, but it sounds absolutely fascinating. Do you resource this yourselves?

[132] **Professor Scott:** Yes. Like Techniquet@NEWI, we go for grants, but we provide the accommodation free of charge, and we get students who might be postgraduate, and so, as part of awarding them bursaries, they undertake this work. That goes back to the American system, in that the students become part of the community, so it is not a them-and-us relationship.

[133] **Gareth Jones:** Ar ran y pwyllgor a'r Aelodau, diolchaf i chi am eich cyfraniad a oedd yn diddorol iawn. Diolch i chi am rannu eich gweledigaeth a'ch hathroniaeth gyda ni; bu'r rheiny'n oleuedig hefyd. Mawr obeithiwn y byddwch yn llwyddiannus o ran cael statws prifysgol—ac yr wyf yn sicr y byddwch—ac y gwelwn wedyn y strategaeth a'r athroniaeth sydd gennych yn lledaenu ymhellach ac yn newid bywydau pobl o'n cwmpas er gwell. Dymunwn y gorau i chi fel sefydliad, a diolch i chi am rannu eich profiadau a'ch harbenigedd gyda ni heddiw.

Gareth Jones: On behalf of the committee and Members, I thank you for your contribution, which was very interesting. Thank you, too, for sharing your vision and philosophy with us, which were also enlightening. We greatly hope that you will be successful in securing university status—and I am sure that you will be—and that we will then see your strategy and philosophy spreading far and wide and changing the lives of people around us for the better. We wish you all the best as an organisation, and we thank you for sharing your experiences and expertise with us today.

[134] **Yr Athro Scott:** Diolch yn fawr iawn.

Professor Scott: Thank you very much.

[135] **Gareth Jones:** Yn olaf, ond yn sicr nid y lleiaf, croesawn gynrychiolwyr y sector addysg bellach. Mae'r ymchwiliad hwn yn ymwneud â chyfraniad economaidd addysg uwch, ond yr wyf yn siŵr y bydd pob Aelod yn cytuno â mi y bu cyfeiriad yn yr holl dystiolaeth yr ydym wedi ei chael, bron yn ddieithriad, at rôl bwysig ac allweddol addysg bellach. Yr ydym yn cydnabod ei bod yn cwbl berthnasol eich bod yma heddiw, ac edrychwn ymlaen yn arw at glywed eich sylwadau. Yr ydym yn hynod ddiolchgar hefyd am eich papurau, sy'n ddefnyddiol.

Gareth Jones: Last, but not least, we welcome representatives from the further education sector. This inquiry is about the economic contribution of higher education, but I am sure that Members would all agree with me that reference was made to the important and key role of further education in all the evidence that we have received, virtually without exception. We acknowledge that it is entirely appropriate for you to be here today, and we look forward very much to hearing your comments. We are also extremely grateful for your papers, which are useful.

[136] Hoffwn estyn croeso cynnes Dr John Graystone, prif weithredwr Fforwm, a David Jones, pennaeth Coleg Glannau Dyfrdwy—diolch am y croeso yma heddiw. Hoffwn groesawu hefyd Huw Evans, pennaeth Coleg Llandrillo Cymru, a Gerry Jenson, a ddaw o'r coleg hefyd—dyma goleg sy'n agos iawn at fy nghalon i. Deallaf fod gennych gyflwyniadau i'w gwneud. Gofynnaf i chi eu cadw mor gryno â phosibl, a chawn gyfle wedyn i ofyn cwestiynau. Dechreuwn gyda

I extend a warm welcome to Dr John Graystone, chief executive of Fforwm, and David Jones, principal of Deeside College—thank you for welcoming us here today. I also welcome Huw Evans, principal of Coleg Llandrillo Cymru, and Gerry Jenson, who is also from the college—and the college is close to my heart. I understand that you have presentations to make. I ask you to keep them as brief as possible, and we will then have an opportunity to ask questions. We will start

John.

with John.

[137] **Dr Graystone:** Diolch yn fawr. I assume that you have read the paper, so I will just pick out a few highlights before handing over to my colleagues. We very much welcome the fact that we have been asked to give evidence, and are grateful for that.

[138] Further education colleges make an important contribution to the economy of Wales. In the paper from Fforwm, we have set out the various ways in which we provide our education courses. We are still small in relation to our delivery of further education, compared with England and Scotland, but we think that there is huge potential for growth. I have included some statistics in the paper. I will not go through them now, but we are a growing sector. What is important is that our learners are primarily adults taking part-time courses. We work very closely with employers, so we are fulfilling a need that relates very much to the economy of Wales. On page 2, we have included some evidence from research to show the impact that colleges make to the economy of Wales. The figure of £1.4 billion is very close to the contribution of higher education institutions to the economy, and there is a lot of research to back that up.

[139] I also wish to emphasise the partnership agenda. We are very committed to working in partnership with employers and higher education institutions, and we also work with schools and local communities. However, our strength is that we are primarily local institutions that work very closely with local communities.

10.30 a.m.

[140] One point that we have emphasised particularly is that of foundation degrees, and I know that my colleagues will take that point forward. In Wales, we are underperforming in relation to foundation degrees. Following the Leitch report and others, we see huge scope and potential for the development of higher technical qualifications, and we think that further education colleges are ideally placed to take forward and push on that agenda. We are hoping for a strong commitment to the concept of foundation degrees from this committee. In that context, we see FE colleges playing an important and significant role, and we would also urge for colleges to maintain the right to award foundation degrees in some cases. That is what has happened in England, and we would like that power extended to Wales.

[141] Finally, we believe ourselves to be the can-do sector. Give us the lead and we will do it and respond. There is a difference between 'Can I?' and 'I can'. We can, as a sector.

[142] **Mr Jones:** Bore da. Estynnaf groeso ichi ar ran myfyrwyr, staff a llywodraethwyr y coleg, a diolch am y cyfle i siarad â'r pwyllgor y bore yma. Gobeithiaf fod y papur yn glir o safbwynt y pwyntiau a gyflwynwyd, ond fe ganolbwyntiaf ar ambell beth allweddol.

Mr Jones: Good morning. On behalf of the students, staff and governors, welcome to the college, and thank you for the opportunity to speak to the committee this morning. I hope that the paper is clear on the points that I put forward, and I will concentrate on some key issues.

[143] Rhan go fach o ddarpariaeth Coleg Glannau Dyfrdwy sydd ym maes addysg uwch, ond mae'r gwaith yr ydym yn ei wneud, ar y cyd ag Athrofa Addysg Uwch Gogledd Ddwyrain Cymru, yn bwysig, ac mae rhai o'r sectorau a'r cwmnïau yr ydym yn eu cefnogi yn bwysig iawn, gan gynnwys Airbus, sy'n un ohonynt. Wedi dweud hynny, credaf fod lle a galw i ddatblygu addysg

Only a relatively small proportion of Deeside College's provision is in the area of further education, but the work that we do alongside the North East Wales Institute of Higher Education is important, and some of the sectors and companies that we support are very important, including Airbus, which is one of them. Having said that, there is scope and demand to develop higher education in

uwch yng ngogledd-ddwyrain Cymru. Un canlyniad positif ar yr ochr economaidd yw bod diweithdra yn go isel yn yr ardal hon, ond nid oes cynifer â hynny yn astudio addysg uwch o'u cymharu â'r niferoedd mewn manau eraill o Gymru. Y ffordd i ymateb i hynny yw sicrhau bod mwy o gyfleoedd ar gael i bobl wneud cyrsiau addysg uwch yn y gweithle, a chredaf fod y colegau, gan gynnwys Coleg Llandrillo, ninnau ac eraill, mewn sefyllfa dda i wneud hynny, oherwydd y cysylltiadau sydd gennym, o ran prentisiaethau a myfyrwyr addysg bellach sydd wedi symud ymlaen i gyflogaeth yn yr ardal. Mae'r colegau wedi datblygu perthnasau felly, a gallant roi'r cyfle i bobl gymryd y cam nesaf, sef dilyn cyrsiau addysg uwch, yn enwedig cyrsiau graddau sylfaenol y mae John eisoes wedi'u trafod.

north-east Wales. One positive outcome on the economic side is that unemployment is relatively low in this area, but there are not that many studying higher education here, as compared with other areas of Wales. The way to respond to that is to ensure that there are increased opportunities for people to study higher education courses in the workplace, and I believe that colleges, including Coleg Llandrillo, us and others, are in a strong position to do that, because of the links that we have, such as apprenticeships and further education students who have moved on to employment in the area. The colleges have developed those relationships, and could give people the opportunity to take the next step, namely higher education courses, particularly foundation degree courses, which John has already talked about.

[144] Tynnaf sylw at ddau fater sydd yn y papur. Mae'n bwysig bod addysg bellach a cholegau addysg bellach yn chwarae rhan strategol ym myd addysg uwch yng Nghymru. Ni allant fod yn ôl-ystyriaeth neu'n rhywbeth sy'n digwydd os yw'r cyllid ar gael. Mae gennym ran glir i'w chwarae ac yr ydym eisiau gweithio ar y cyd â'r prifysgolion. Rhaid i'r prifysgolion fod ar y blaen, a rhaid inni weithio gyda nhw. Yng ngogledd Cymru, mae gennym lawer o golegau addysg bellach sydd o'r safon orau yng Nghymru a thu hwnt, o bosibl. Yr ydym mewn sefyllfa dda i helpu a chyfrannu.

I will draw attention to two issues in the paper. It is important that further education and further education colleges play a strategic role in higher education in Wales. They can never be an afterthought, or something that happens if the funding is available. We have a clear role to play and we want to collaborate with the universities. The universities must take the lead, and we must work with them. In north Wales, we have a number of further education colleges of the highest quality in Wales and possibly beyond. We are in a strong position to assist and contribute.

[145] Mae'r pwynt olaf sydd i'w wneud yn berthnasol iawn i'r coleg hwn, fel coleg sydd ar y ffin. Ambell waith, mae problem oherwydd ar y rhestr o brifysgolion y mae cyflogwyr yn gweithio gydag hwy, mae'r rhan fwyaf ohonynt y tu allan i Gymru. Gwnaed y pwynt hwnnw gan Airbus y bore yma. Rhaid bod modd galluogi colegau a phrifysgolion yng Nghymru i weithio gyda'r cwmnïau hynny. Mae'r ffactor o orfod gweithio gyda phrifysgolion a cholegau addysg uwch y tu allan i Gymru yn mynd y tu hwnt i Airbus ac mae'n effeithio ar gwmnïau eraill. Ambell waith, gall amharu ar ein gallu fel sector addysg bellach i ymateb yn ddigon cyflym i anghenion cwmnïau. Gobeithio bod hynny'n rhoi rhyw syniad o'r pwyntiau allweddol.

The final point to be made is highly relevant to this college, as a college that is right on the border. Occasionally, we have problems because on the list of universities that employers work with, most of them are situated outside Wales. Airbus made that point earlier this morning. There must be a way of enabling Welsh colleges and universities to work with these companies. That factor of having to work with universities and higher education colleges outside Wales goes beyond Airbus and it also affects other companies. On occasion, that can have an impact on our ability as a further education sector to respond quickly enough to the demands of companies. I hope that that gives you some idea of the key points.

[146] **Mr Evans:** Thank you very much for the invitation this morning. Currently, Coleg

Llandrillo attracts well over 23,000 students as part of its operational base. A small, but significant number of those students are higher education students. The college focuses on three very clear segments of the market. The first is the 14 to 19 further education; the second is work-based and adult education; and the third, which is the point of interest this morning, is higher education.

[147] Higher education for a college such as Coleg Llandrillo is very much about providing a local opportunity that gives real progression for the large student base that it serves. As you can see from the evidence submitted, the provision is highly vocational and is highly relevant to the needs of the local community and is, by and large, developed in conjunction with local industry. For example, approximately 80 per cent of our provision is part-time. This makes a significant contribution to what is going on locally. The other aspect of provision within a college such as ours is the fact that we take widening participation very seriously indeed. Many of our courses are targeted at segments of the population that have missed out on initial opportunities.

[148] In summary, I can only say that there are real opportunities here for FE colleges in particular. There are real opportunities in the context of becoming hubs of delivery for the local economy, in terms of working with local industry and making a direct contribution to economies within local communities. We feel that the foundation degree development has the potential to seriously unlock, and make a significant contribution within, localities.

[149] **Gareth Jones:** Diolch am hynny. Mae'r graddau sylfaenol o bwys mawr a deallwn y pwyslais ar hynny yn eich cyflwyniadau. Yr ydym, fel pwyllgor, wedi ymateb i bapur ymgynghorol y Dirprwy Weinidog dros Sgiliau, John Griffiths, 'Sgiliau sy'n Gweithio i Gymru'. Yr ydym wedi dweud y byddwn yn sicr yn cefnogi cais y sector hwn i sicrhau bod graddau sylfaenol ar gael ac yn cael eu datblygu. Mae unfrydedd yn hynny o beth.

Gareth Jones: Thank you for that. The foundation degrees are very important, and we understand the emphasis placed on those in your presentations. As a committee, we have responded to the consultation paper of the Deputy Minister for Skills, John Griffiths, 'Skills That Work for Wales'. We have said that we will certainly support the sector's desire to ensure that foundation degrees are available and are developed. There is unanimity on that.

[150] **Janet Ryder:** I have a few questions. The impact on the economy and close working with the economy is the basis of Leitch and Webb, along with the impact on you and on higher education and providing the courses that industry needs. In a few of the papers, you welcome that move towards working more closely with employers. What effect will it have on courses if employers are to have a larger say in which courses are funded? What effect will this have on colleges and their ability to offer general courses, if the courses become purely employer-led? When you are developing courses with employment, how closely do you work with those sector employers to ensure that the courses that you are putting on meet the needs of those employers, particularly in areas where—for example, this college—students come from both sides of the border? If we take the example of the care sector and the childcare sector in particular, we know that the demands that will be placed on training for foundation childcare assistance will be totally different to the demands placed generally and those that are currently provided through the national vocational qualifications, which is a UK-wide course. How do you meet the needs of Welsh employers when you have a mixed intake?

[151] I appreciate what you said about foundation degrees, but colleges are also being asked to take students from the age of 14 through the learning pathways. An age range from 14 years old to the end of foundation seems to be a wide stretch; it is even further than an intake ranging from 12 years old to A-level in schools—it seems a very wide stretch for a lecture. How will the structure or funding of colleges have to change to enable that pastoral care to take place and to make sure that we are looking after the needs of the learners as well

as offering the very high academic standard up to foundation degree level?

10.40 a.m.

[152] **Dr Graystone:** I will respond and then pass over to David. In terms of your first point about being employer led, there is a recommendation in the Webb review about top slicing about £40 million to £50 million from college budgets that would then go to employers so that they can then buy back provision from colleges. At the moment, that is in a sort of consultation phase and we will be looking to make sure that that works effectively. We are not scared of that, because we feel that we can compete with other people in terms of quality, but it will involve a considerable shake up of the way in which we work with employers. Our worry is that some bureaucratic elements may come into it. What we do not want is something that is going to stop us from responding quickly.

[153] On your last point, in terms of education from 14 up to foundation degrees, colleges do that already. I think that one of our strengths is that you can have progression within an institution. You can have students at entry level, but you can have graduates and postgraduates as well. It is one of our strengths as a sector that we have always been able to do that. We are very learner centred. A final point on that is to just remind the committee that, over the age of 16, every learner in a college is a volunteer—they do not have to be there. We have spent many years responding to the needs of our customers, because they can walk at any time. So, we have to be responsive to their needs. I will now pass over to David.

[154] **Mr Jones:** Yr wyf am ymateb i ddau o'r pwyntiau'n gyflym cyn symud ymlaen at y cwestiwn arall. Yr ydym yn pryderu rhywfaint am rai o'r pethau sydd yn Webb, ynglŷn â'r ffordd y bydd arian efallai yn cael ei roi'n uniongyrchol i gyflogwyr, ond yr wyf yn credu mai dogfen ymgynghorol yw honno ac, fel rhan o'r drafodaeth, yr wyf yn siŵr y bydd hynny'n datblygu dros y misoedd nesaf. O ran y pwynt ynglŷn â graddau sylfaenol, credaf fod y gair 'gradd' neu 'degree' o fewn 'foundation degree' yn drysu pobl, i raddau; mae'r math hwnnw o gwrs ar y ffin rhwng addysg bellach ac addysg uwch. Bu colegau addysg bellach yn cynnig y cyrsiau hyn ers blynnyddoedd ac maent yn parhau i'w cynnig yn awr hefyd. Yr wyf wir yn teimlo nad yw Cymru fel gwlad, hyd at yn awr, wedi cynyddu nifer y myfyrwyr sy'n gwneud graddau sylfaenol yn ddigon cyflym nac yn ddigon uchel. Mae gan y cysylltiadau rhwng colegau addysg bellach ran fawr i'w chwarae i ehangu hynny. Nid wyf yn pryderu gormod am oedran, ond y gwir yw, fel y dywedodd John, mae gennym bobl o bob oedran sy'n gwneud cyrsiau mewn colegau addysg bellach beth bynnag. Cytunaf y bydd yn sialens pe bai addysg o 14 yn datblygu yn y ffordd a awgrymwyd gan Janet.

Mr Jones: I wish to respond to two of the points quickly and then I will go on to the other question. We are somewhat concerned about some of the things in Webb, about the way in which money may be given directly to employers, but I think that that is a consultation document and, as part of the discussion, I am sure that that will develop over the coming months. On the point about foundation degrees, I think that the word 'degree' in 'foundation degree' throws people to some extent; that type of course is right on the boundary between further and higher education. Further education colleges have been offering these courses for years and they are continuing to offer them now. I really feel that Wales as a country, up until now, has not increased the number of students who do foundation degrees quickly enough or high enough. The connections between further education colleges have a big part to play in expanding that. I am not too concerned about age, but the truth of the matter is, as John said, that we already have people of all ages doing courses in further education colleges anyway. I agree that it will be a challenge if education from 14 onwards were to develop in the way that Janet suggested.

[155] O ran cysylltu â chyflogwyr, yn y papur a gyflwynais i'r pwyllgor, gallwch

In terms of working with employers, in the paper that I gave to the committee you can

weld un o'r ffyrdd yr ydym yn gwneud hynny. Gwnaeth Gareth Williams o Airbus y pwynt hwn yn gynharach: os ydych yn mynd i weithio gyda chwmmi ac yn bwriadu ymateb i'r hyn y mae ei eisiau, ni fyddai'n gweithio'n dda iawn pe bai'r cwmni'n dod atoch y bore yma gan obeithio y byddai popeth yn ei le erbyn dydd Llun nesaf. Nid ydym yn gweithio felly. Mae popeth yn cael ei seilio ar bartneriaethau tymor hir, a dyna'r hyn yr ydym yn ei wneud. Yr ydym yn gweithio gyda chwmmiau mawr fel Airbus ac wedyn, fel y gallwch weld yn y ddogfen, gyda chwmmiau sydd o fewn y cadwyni cyflenwi neu fusnesau bach a chanolig eu maint sydd yn yr un sectorau. Yr ydym yn cydweithio â nhw'n gyson ac yn cwrdd â nhw'n gyson er mwyn darganfod beth y mae arnynt ei eisiau. Y bartneriaeth honno, y ddealltwriaeth o'u busnes a'r hyn y maent yn ceisio ei wneud sy'n sylfaenol. Pan awn at gwmnïau, nid ydym yn mynd atynt i werthu cwrs iddynt; awn atynt i ganfod yr hyn y maent yn ceisio ei wneud i fod yn llwyddiannus, ac wedyn yr ydym yn edrych am ffyrdd i ymateb er mwyn eu helpu i gyflawni eu cynlluniau strategol.

see one of the ways in which we do that. Gareth Williams from Airbus made this point earlier: if you are going to work with a company and intend to respond to what it wants, it is not going to work very well if the company came to you this morning expecting that everything would be sorted by next Monday. We do not work like that. Everything is based on long-term partnerships, and that is what we do. We work with big companies like Airbus and then, as you can see in the document, with companies that are part of the supply chains or small and medium-sized enterprises in the same sectors. We co-operate with them closely and we meet with them regularly to discover what they want. That partnership, understanding their business and what they are trying to do, is crucial. When we go to companies, we do not go to sell them a course; we go to them to discover what they are trying to do to keep going and to be successful and then we look for ways to respond in order to help them to achieve their strategic plans.

[156] **Mr Evans:** It is always important to maintain a balance in the context of the employer-led provision and so on, because, at the end of the day, we are charged with providing a comprehensive range of provision. When it comes to developing courses with industry, to develop local industry and so on, I welcome the involvement of local employers. In terms of the foundation degrees that we are currently running, I think that all of them have been developed in close association with local employers, which range from the police force in north Wales to small automotive companies that come together with groups of college staff to work on and deliver that provision.

[157] Yes, there have been some worrying developments in the context of money being taken out of the FE budget, but we are hoping that we can bid back for that money, because we feel confident that, as a group of college providers, we can provide a quality service to local industry without destabilising what is going on elsewhere.

[158] On your question about the breadth of provision, from the age of 14 and then all the way through, that is why I evidenced the fact that, currently, we, as a college in Llandrillo, work to three very distinct markets, and we have very distinct quality, funding and accountability regimes within the institution, which is why that can be done.

[159] **Janet Ryder:** When you are working with employers to develop courses, as has been said, you need a long lead-in, or some lead-in—it is not an overnight thing that an employer comes along and says that it needs a workforce by next week, because you cannot train people that quickly. How do you interface with small and medium-sized businesses? Is it much more difficult than working with larger businesses? Are the sector skills councils—I am probably pre-empting a question that Jeff is going to ask—really doing the job that they should be doing in leading that course need?

[160] **Mr Jones:** Hoffwn ymateb yn gyflym, ac efallai y bydd gan Huw bwyntiau i'w codi. O fewn ardal Llandrillo, mae llawer o gwmnïau llai ac mae mwy o sialens, mewn ffordd, oherwydd hynny. Mae'n sialens, ond hoffwn fynd yn ôl at y strwythur sydd gennym. Mae'n fater o edrych ar y farchnad leol a chanfod, drwy'r wybodaeth am y farchnad lafur, pa gwmnïau sy'n bodoli ym mha sectorau a beth yw eu maint, fel y gallwn wedyn gysylltu â nhw a dod â nhw at ei gilydd er mwyn eu helpu.

Mr Jones: I wish to respond briefly, and then Huw might have some points to make. In the area around Llandrillo there are many smaller businesses and it is more of a challenge, in a way, because of that. It is a challenge, but I wish to go back to the structure that we have. It is a matter of looking at the local market and finding out, through labour market information, which companies exist in which sectors and what their size is, so that we can then contact them and bring them together in order to help them.

[161] Mae un peth sy'n dipyn o fonws i'r cwmnïau. Os daw 20 o gwmnïau bach iawn o fewn un sector i'n gweld, drwy siarad gyda ni am yr hyn y maent eisiau ei gyflawni, hyfforddiant ac ati, maent yn gwneud busnes gyda'i gilydd. Yn aml iawn, yr ydym yn cael e-bost wedyn sy'n dweud, 'Yr ydym yn gweithio gyda'r cwmni hwn yn awr'. Mae'n sialens, fe gytunaf, ond credaf fod gennym strwythur llwyddiannus, a gwn fod gan golegau eraill strwythurau tebyg.

There is one thing that is quite a bonus for the companies. If 20 very small companies within one sector come to see us, by speaking to us about what they want to achieve, training and so on, they often do business with each other. We then receive an e-mail that says, 'We now work with this company'. I agree that it is a challenge, but I believe that we have a successful structure in place, and I know that other colleges have similar structures.

[162] **Mr Evans:** Very simply, the SME issue is a huge challenge for any college. We work with federations of employers and employer groupings—it could be a hotel group or a group of motor vehicle employees that come together in defined communities. It is only by working with such groupings that you can get the critical mass to make it work.

[163] **Jeff Cuthbert:** Janet quite rightly acknowledged that she has pre-empted, in part, the question that I wanted to ask. You have the advantage of having heard the questions that were asked to the other presenters this morning. I will ask Fforwm the first question. On sector skills councils, you make the rather telling statement:

[164] 'However, SSCs are starting to adopt a leading role in employer-led demand for training'.

[165] I know that some councils are well organised, such as ConstructionSkills and the Sector Skills Council for Science, Engineering and Manufacturing Technologies; they are, beyond all doubt, doing the business for their occupational areas. Are you in a position to expand on your comment? The SSCs have been around, UK-wide, for some time now, and I believe that they are coming before us to give evidence next Wednesday. It would be useful to know from Fforwm or the individual colleges which are the ones that are doing the job now for their occupational areas, especially bearing in mind the number of SMEs in Wales, and which ones are really trying to catch up. We can help—it is not a question of trying to penalise or embarrass any organisations—but we need to see where we need to focus resources and effort. I agree that it is critical that, if we are not providing training, at a higher level in this case, that matches the needs of the employers and the economy, we are not really doing the best that we can. It is not a case of dragooning young people or adults in particular areas, but they must have an informed choice.

10.50 a.m.

[166] I also note in the evidence from Deeside College—and I am not sure whether or not

you are playing devil's advocate a little—that you say in point 3, under the heading 'Existing barriers to HE learning' that

[167] 'The bureaucratic nature of HEI approvals and funding processes often slows down or prevents responsiveness to employer demands.'

[168] Are you, in effect, saying that higher level courses that have a clear vocational bent are perhaps best organised through the FE sector because of the way that you have worked historically? Is that the under message there?

[169] **David Melding:** I think that it is the over message. [*Laughter.*]

[170] **Jeff Cuthbert:** Perhaps so. Finally, I have a question for Llandrillo College. You alluded to your focus groups in your response to the last question. Can you say a bit more about those? You meet with business regularly, so, taking that literally, there is therefore a focus and an agreement on how your courses will meet the needs of industry, and is that fairly typical of the FE sector as a whole?

[171] **Dr Graystone:** To speak to the first question on the sector skills councils, I do not think that I would want to go on record as saying that, 'These are good, and these are bad'. As Fforwm, as an overarching body, we work very closely with some of them. Individual colleges will work closely with particular sector skills councils that are relevant to their employment sector. For example, I sit on Lifelong Learning UK sector skills council for Wales, and we have a college principal serving on that, and we have a close relationship with Construction Skills and SEMTA, and so on. We have also set up a group to liaise with sector skills councils, which meets regularly. It was chaired by Skills for Business, but that has now obviously moved on, and we will probably take on that role. We have a network of business development managers and we have a target of meeting every sector skills council within the next 12 months.

[172] As a general point, some sector skills councils were slow to grasp the devolution agenda. An early criticism that we would make about some sector skills councils is that they saw Wales as being half of an English region, and they would put one person in Wales and expect them to grasp the whole nation of Wales. I think that they are changing their attitude on that, but we were concerned initially that they were being Anglo-centric rather than focusing on Wales, but they are now moving forward on that.

[173] Secondly, they were somewhat understaffed in respect of Wales, so they were given an almost impossible job. I know that one sector skills council, which had responsibility for tourism, in its early days had one person covering the whole of Wales and south-west England, including Devon, Cornwall, Dorset, and so on, but that is now changing.

[174] Thirdly, sector skills councils need to have a higher profile with some of the employers. In his report, Webb stated that there is still a low level of recognition of some sector skills councils among employers. Perhaps I could invite the committee to do a little test: if I sent you the names of the 25 or so different sector skills councils could you match the name to the sector? I have done this with colleagues of mine, and we always fail disastrously, so the SSCs also need to be promoting themselves. This is not meant to be a criticism—they are moving forward and they have a massive job to do, and we are very keen to work with them. It has been hard for them, but they are now moving very quickly, I think.

[175] **Mr Jones:** To respond to your question about the bureaucratic nature of higher education institutions approvals, the answer is that they are too bureaucratic. It is not about cutting corners or lowering standards, but about realising that it is 2008. In the same way that our companies across Wales and the UK have to operate in a lean way in order to compete

globally, we need to get rid of some of the red tape that does not add value. We had an example this week of a revalidation, and we had almost the whole world around the table doing something that I did not think was needed. We need to make things happen more quickly, and minimise the resource so that we can sustain the provision.

[176] **Mr Evans:** To pick up the point about the focus groups, currently we have about 15 focus groups that are directly tied in to the vocational areas within the college. Each one has about 12 to 15 representatives of local industry, which adds up to about 30 local employers—by local, I mean in Conwy and Denbighshire—who are involved in this focus group’s structure. They look at planning and quality of provision, and that feeds in to a business and economic development group that is a sub-committee of the board, so the employer voice is heard all the way through the organisation.

[177] **Gareth Jones:** David Melding is next.

[178] **David Melding:** Most of my questions have been covered, but I want to raise one specific point. The Welsh Assembly Government has rejected one of the central recommendations of the Leitch review, namely to raise the level of intermediate skills to benchmark level 3. We have been told that that will not happen in Wales. What are the implications of that? Setting the benchmark for intermediate skills at that level would have involved FE colleges very considerably, and while I understand that the early agenda of Leitch is looking at low-level skills, if we want to be a highly productive and competitive economy by 2020—or whatever date is set in the report—it seems to me that we need a revolution in terms of what we expect of people, and we need to have confidence that they can achieve that. Given that disappointing response in terms of intermediate skills, there must be a danger that that will lead to a reduction in our ambition for the higher skills levels, and principally foundation degrees. Do you share that concern?

[179] **Mr Evans:** I will pick that up on behalf of the team here. First of all it is a question of priority. There are identified level 1 issues and level 2 issues in Wales, but I believe that they are issues of today, and we cannot very well ignore the level 3 issue of tomorrow. You are absolutely right to link that to level 4, because there are some ambitious targets set at level 4 within foundation degree territory. If we do not get level 3 provision properly in place, level 4 will not be achieved either. However, I can understand the reasoning behind the policy, because of the scale of the problem that we have at levels 1 and 2. However, there are real concerns here, in the context of the 14-19 strategy that is evolving within Wales, because, increasingly, young people will be achieving at level 2 by the end of key stage 4, which is at 16 years. That will create quite a serious problem if they repeat that work at 16—there should be built-in progression as part of a logical sequence of events. I do not know if you want to comment on that, Gerry.

[180] **Ms Jenson:** I would agree. As the 14-19 strategy kicks in and becomes more successful, it will be important to develop those pathways so that they are coherent. To go back to an earlier point, the fact that we can develop pathways with FE from age 14 through to foundation degree level is an intrinsic strength, because you are raising the aspirations of 14-year-olds who might not be thinking of progressing to higher education. So, the 14-19 pathways agenda underpins much of what we are talking about.

[181] **Sandy Mewies:** Most of my points have been covered, but I am glad that the committee has come to north Wales and seen the high standard of FE here. A good case has been made for delivering the foundation degree in your establishments, but to ask a question that I think David alluded to, what is the main obstacle? What is the single thing that the Welsh Assembly Government could do to make that easier?

[182] **Kirsty Williams:** Ask for the powers.

[183] **Sandy Mewies:** That was a question to the panel.

11.00 a.m.

[184] **Mr Evans:** Again, I will start. Fundamentally, powers for colleges would unlock potential that people have not quite realised as yet. I am talking about quality institutions delivering a quality product, and that needs to be made clear. I am sure that some institutions will not take up the awarding power, the opportunity to do it. Some will continue to work in partnership, and some of the institutions that take up the powers will also work in partnership. Working with a university in partnership is important to most of us. The biggest barrier in Wales is the fact that funds have not been targeted, through the Department for Children, Education, Lifelong Learning and Skills, the FE sector or through Higher Education Funding Council for Wales, to develop this important part of provision. I would welcome some kind of pilot imitative to see whether we can drive this forward.

[185] **Mr Jones:** Linking back to my earlier point, this has to be strategic and we really have a role to play. I think that Wales is failing when you consider what we could be achieving with foundation degrees, and we now have to play catch up. I agree entirely with Huw; I do not think that every FE college in Wales would want to get involved anyway, and we would welcome stringent standards for those that should be involved in terms perhaps of the volume of provision that they offer, and the quality of profiles that they have, and then give them the opportunity to do that in partnership. By doing it in that way, there is a great opportunity to make up the ground where we are currently falling behind, and there are some key sectors in Wales that colleges can support. Going back to the theme that has come through strongly this morning about the economy, I do not think that we can afford not to do it through FE colleges because a large proportion of the links with companies—large, small and very small—in Wales are through FE, because that is where it starts.

[186] **Sandy Mewies:** May I just make the point that an aside does not go on the Record, but the evidence does.

[187] **Gareth Jones:** It is now over to you Kirsty.

[188] **Kirsty Williams:** Apart from the fact that we do not have powers under the 2007 Act to take this forward in Wales, can you outline some of the other challenges that would face your institutions if we were to move down this particular route? I am especially concerned about issues of capital investment in your institutions, in that you might need to improve to respond to this agenda.

[189] **Dr Graystone:** I will just give a general answer on capital. The Webb report drew attention to the underinvestment in terms of capital in FE colleges, and there is a striking table showing where we were compared with Northern Ireland, Scotland and England: we were right at the bottom. I think that Northern Ireland has about three times as much investment as we do. If we mirrored what England has, we would have at least £50 million investment in capital every year in colleges. At the moment, we have about £20 million, of which a lot is for special projects, so the general capital is much lower than that. We would want a strong capital investment programme to develop this. Webb is sharp in his comments on this, and states that we must invest properly if we are to have higher class facilities, because we are competing with elsewhere. That is particularly the case in north-east Wales, because just over the border there are colleges that are getting £60 million, £70 million or £80 million of investment. That would take up the entire investment in colleges in Wales for the next four years. So we want a strong steer on that.

[190] **Mr Jones:** That is a good point, and I agree with John, but there is a need for

strategic investment. The involvement of FE colleges has to be based on key sectors. We have talked a lot about sectors such as the aerospace sector and OptIC and so on this morning, but there may be other more traditional areas that are important, such as the land-based sector in Wales. As a Welshman originally from Ceredigion who is now firmly planted in rural Dyffryn Clwyd, that is another important sector for me. What we need to be doing is building on the partnerships that exist at the moment in Wales, for instance the recent link between Aberystwyth University and the Institute of Grassland and Environmental Research. However, to go back to my point about looking over the border, we also have to look sometimes to work with universities in England. Another good example, which again involves Aberystwyth University, is between it, Coleg Sir Gâr and the Royal Veterinary College. That is a good way by which Wales is getting the veterinary training that it needs without having to develop its own veterinary college. I know that there is a parallel development in north Wales, where Coleg Llysfasi in Rhuthin has strong links with Leahurst college, part of the University of Liverpool. It is through that strategic development that we can be realistic about the capital investments that we can make within our own country, but also benefit from the investments that have been made elsewhere.

[191] **Mr Evans:** There is a clear strategic need to rethink a system that was essentially designed as a post-war system, and, to be honest, I think that the system has now run out of steam. There needs to be a real look at how the whole thing is configured within Wales and there needs to be a proper look as well at how FE and HE are configured, because the world is changing and the demands made of us are changing. There is an obvious need for a step change, going back to the discussion on level 3 and level 4. To achieve that will require additional funds for this pot. You are right in that there is an FE college in Chester that, I believe, has a massive capital programme, and there are also various colleges on the border. We could use loads of examples in that context.

[192] We are funded according to adequacy and delivering to our mission, but, at this time, we cannot really move with the modern agenda, the new agenda that is evolving, and the new expectations that young people and adults have.

[193] **Gareth Jones:** Diolch. Mae gan **Gareth Jones:** Thank you. Janet Ryder has a Janet Ryder bwynt i'w wneud. point to make.

[194] **Janet Ryder:** This point was raised by Airbus on the development of alumni. If, as you say, you want to see an increasing merger of the borders between FE and HE, HE must work increasingly in the same way as FE to develop alumni. How well set are colleges in Wales for that?

[195] **Mr Evans:** My guess is that they are probably underdeveloped across the board. Our institution is moving in that direction and we are using people, particularly in the hotel industry, who have national roles at present, to link back into the college. I know that other colleges are doing something similar. However, on financial investment, we are at only the very beginning. When you compare our situation with that of the average American community college—and, let us face it, we perform similar roles—you see that the investment that it gets back from local industrialists and so on is significant greater.

[196] **Janet Ryder:** There is quite a clear differentiation between the levels of colleges in America.

[197] **Mr Evans:** At the end of the day, the American community colleges are, in effect, offering foundation degrees, are they not, which is the first part of the degree system?

[198] **Gareth Jones:** Rhaid dirwyn i ben **Gareth Jones:** We must now wind up our yn awr. Ar ran y pwyllgor, hoffwn ddiolch i'r discussion. On behalf of the committee, I

pedwar ohonoch. Yn sicr, yr oeddem yn benderfynol o gael y sector addysg bellach i gyflwyno tystiolaeth i ni. Mae'n sector allweddol, ac nid wyf yn gwenieithu wrth ddweud hynny.

[199] Gwrandewais arnoch yn ofalus a'r hyn sy'n fy nharo i yw eich bod yn gwybod y ffordd ymlaen. Mae gennych eich strategaeth a'ch hathroniaeth, ond mae rhwystrau ar hyn o bryd. Serch hynny, yr wyf yn cydnabod ac yn falch eich bod wedi cyfeirio at y Gymru ddatganoledig sydd ohoni. Efallai fod angen i ni ystyried hynny o ddifrif ac addasu'r cyfundrefnau yng ngoleuni'r Gymru ddatganoledig. Credaf fod honno'n neges bwysig i'n hannog i gydweithio.

[200] Gall y siwrnai fod yn un faith, ond bwriad a gobaieth y pwyllgor yw ein bod yn gallu uniaethu â'ch negeseuon pwysig chi y bore yma. Mae'n bwysig ein bod wedi gwrandao arnoch a'n bod yn medru ymgorffori eich tystiolaeth yn yr adroddiad terfynol a fydd, gobeithiwn, yn hwyluso'r sefyllfa. Yr ydym yn cydnabod eich brwdfrydedd a'ch gweledigaeth, ac yr ydym yn hynod ddiolchgar am eich cyfraniad.

[201] Wrth sôn am y siwrnai faith, dylem gydnabod y marathon y bu i David ei redeg ar ran Cymdeithas Alzheimer. Llongyfarchiadau i David am hwnnw. Diolchaf hefyd i David am ei letygarwch a'r croeso a gawsom yma ar Lannau Dyfrdwy. Gobeithiaf y bydd argymhellion yr adroddiad hwn yn hwyluso pethau ac yn symud pethau yn eu blaen. Mae lle i ni wrando a sicrhau ein bod yn gallu gwella pethau. Felly, diolch i chi am eich cyfraniadau allweddol i ni y bore yma. Bu'n sesiwn werthfawr, a dyna ddiwedd ein cyfarfod.

thank all four of you. We were determined to get the further education sector to provide evidence to us. It is a key sector and I am not trying to flatter you in saying that.

I listened to you carefully and what strikes me is that you can see the way ahead. You have your strategy and your philosophy, but there are currently barriers in your way. However, I acknowledge and I am pleased that you referred to the devolved Wales that we have. Perhaps we need to give serious consideration to that and change our systems in the light of Wales's devolution settlement. I think that that is an important message to encourage us to collaborate.

The journey could be a lengthy one, but the intention and hope of this committee is that we can identify with your vital messages this morning. It is important that we have listened to you and that we can incorporate your evidence in the final report that will, we hope, improve the situation. We acknowledge the enthusiasm and vision that you have displayed this morning, and we are grateful for your contribution.

When we talk about lengthy journeys, we should acknowledge the marathon that David completed for the Alzheimer's Association. Congratulations to David on that. I also thank David for his hospitality and the welcome that we have been given here in Deeside. I hope that the report's recommendations will help the situation and move things forward. There is room for us to listen and ensure that we can make improvements. So, thank you for your crucial contributions this morning. It has been a valuable session, and that is the end of the meeting.

*Daeth y cyfarfod i ben am 11.08 a.m.
The meeting ended at 11.08 a.m.*