



Northern Ireland
Assembly

**Committee for Enterprise, Trade and
Investment**

**OFFICIAL REPORT
(Hansard)**

**Inquiry into Developing Northern Ireland through
Innovation, Research and Development: Belfast
Metropolitan College**

1 March 2012

NORTHERN IRELAND ASSEMBLY

Committee for Enterprise, Trade and Investment

Inquiry into Developing Northern Ireland through Innovation, Research and Development: Belfast Metropolitan College

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Members present for all or part of the proceedings:

Mr Alban Maginness (Chairperson)
Mr Steven Agnew
Mr Gordon Dunne
Mr Phil Flanagan
Mr Paul Frew
Mr Paul Givan
Mr Stephen Moutray
Mrs Sandra Overend

Witnesses:

Mr Damian Duffy	Belfast Metropolitan College
Mr Justin Edwards	Belfast Metropolitan College

The Chairperson: Briefing the Committee today are Mr Damian Duffy, director of business generation and learner services, and Mr Justin Edwards, assistant chief executive, of Belfast Metropolitan College. Gentlemen, you are very welcome. Please make an opening statement and then we can move on to questions.

Mr Justin Edwards (Belfast Metropolitan College): Thank you. We are delighted to be here today to meet the Committee and to take the opportunity to share our views on research and development and innovation. My name is Justin Edwards, and I am the assistant chief executive. I represent Marie-Thérèse McGivern, the chief executive of the college. I am joined by my colleague Damian Duffy, director of business development and learner services. Between the two of us, we will take a moment to outline the college's contribution to the agenda.

I know that many members of the Committee are aware that the college was founded in 1906. It currently has 35,000 learners and an annual turnover budget of £54.3 million. We have 1,003 staff engaged in education and training over a very wide range of curriculum areas, from entry-level qualifications through to postgraduate qualifications at level 7. Primary delivery is through our five main campuses, and our flagship campus in the Titanic Quarter opened recently. Our new Springvale E3 campus will be coming on line in April.

In terms of our provision, we have not only our five main campuses but a heavy engagement with industry, offering training and learning development through further and higher education with employers in the Belfast region and beyond. Our education provision reaches out to international work as well. With that overview, I will hand over to Damian, who will take us through the research and development and innovation side of Belfast Metropolitan College.

Mr Damian Duffy (Belfast Metropolitan College): For clarification, it is important to point out that we have added the element of innovation to the debate because we see that as part of an encompassing framework. Following up on the briefing paper that we submitted on our work at the minute, Belfast Metropolitan College is one of the most successful colleges in Northern Ireland and the United Kingdom in respect of knowledge transfer partnerships (KTPs). We have delivered over 20 KTP programmes to date. As Justin mentioned, we are about to open a brand new facility on the Springfield Road in April. It is a high-tech digital hub, a unique facility. The £15 million spend was supported by the International Fund for Ireland (IFI) and the Department for Employment and Learning (DEL). It provides us with new facilities for digital media, composite materials and renewables.

We collaborate with Queen's University and the University of Ulster on the Connected programme, which is managed by Colleges NI and focuses on bringing in expertise on innovation and product development to companies and small and medium-sized enterprises (SMEs). We have recently signed a memorandum of understanding with BioBusiness Northern Ireland to explore opportunities for sharing expertise and skills with the bioscience industry. Belfast Metropolitan College and Queen's are also collaborating on a JISC-funded programme called Engage to develop a portal that, again, will promote the joint capability and expertise between Belfast Met and Queen's University.

Along with the other FE colleges across Northern Ireland, we recently submitted to DEL a three-year strategic plan for the DEL-funded employer support programme. Through that programme, we have identified a number of strategic priorities: Information and communication technology (ICT); bioscience; digital media; renewables; advanced materials in manufacturing; and tourism and hospitality. The six FE colleges will collaborate across those priority sectors over the next three years to deliver a range of mentoring and business support programmes to SMEs.

It is important to highlight the fact that not only is Belfast Metropolitan College the biggest further education college in Northern Ireland but the sector itself presents a significant resource to the Northern Ireland economy. We have six regional colleges, employing 4,100 staff, with over £250 million in turnover. We deliver 18% of the higher education output of the region. So, we see ourselves as a very strong piece of the innovation ecosystem in Northern Ireland. We are keen to explore the opportunities to develop our role in the sector by working closely with the sector skills councils and the universities. In order to align our academic curriculum, we have just developed a five-year curriculum strategy that ensures that the delivery of the courses and programmes that we put forward in the years to come will be plugged in to the Northern Ireland economic strategy.

I will share with you more of the innovative ideas that we are working on. We recently submitted an application through the INTERREG programme, working with the Institute of Technology, Sligo and the University of the Highlands and Islands in Scotland. It is a £4 million programme to develop a virtual enterprise platform to put a range of toolkits around creativity and innovation and to share them through a digital and online medium.

We recently submitted a project, again through INTERREG, and this time Belfast Metropolitan College is leading the project in partnership with the Southern Regional College, and the South West College and three institutes of technology, Dundalk Institute of Technology, Institute of Technology, Sligo and Letterkenny Institute of Technology. It is a £3.8 million project entitled Colleges Actively Driving Digital Delivery, and it is focused on improving progression routes for higher and further education students on a cross-border basis. We are also active in a number of other European programmes, including Erasmus and Leonardo Da Vinci, and work on e-learning programmes and various sustainable design initiatives with our other European partners.

Uniquely, Belfast Metropolitan College is the first FE college in Northern Ireland to take on the development of a project under the European Commission's seventh framework programme (FP7), which is a significant challenge. We have a very interesting project in the connected health field, and we hope that we will be successful in the future.

In order to support the embedding of the curriculum of culture, creativity and innovation, we have developed an award-winning programme called FRESH, which won a national business education award last summer. That programme works with young people to help them to work and think outside the box.

Mr Edwards: We know that the 10 biggest spenders on research and development (R&D) in Northern Ireland account for 60% of the total contributing spend of R&D. A small number of companies engage in high-level R&D, such as Almac, Randox and First Derivatives. We have interacted with all those companies to help us to develop the skills bases and the ability to support R&D. We have significant connections with the three universities — the two local ones and the Open University — in developing our research and licensing capacity and our spin-out arrangements. When our E3 centre goes live, it will have a new composites tool called an autoclave, which, we understand, will be the only one in Northern Ireland. We have already had engagement with the universities to use that tool for research and development work.

For the majority of the SMEs that we engage with, we have to engage on small parts of innovation through the likes of our E3 centre and opportunities through some of our training. They are also picking up opportunities through our higher-level skills and our part-time higher education programmes to learn about streamlining business or improving business productivity.

As Damian has already outlined, we have reflected the Programme for Government and the Northern Ireland economic strategy in our whole-college quality improvement plan and our whole-college curriculum strategy over the next five-year period. We have identified the areas that Damian outlined, and we will be directing our curriculum to develop those areas, the first priority of those areas being digital media, interactive media and IT. For this year alone, we will increase the number of placements available in interactive IT and digital media by 4%. We will also bring on stream the first mobile learning and open source level-3 qualification in our E3 centre, working closely with local providers, such as Fujitsu IT, to help us support and deliver that to learners and bring on the next generation of IT.

The whole-college quality improvement plan is making sure that what we deliver is of outstanding quality, and we aim to be an outstanding college, comparable to the colleges in southern Ireland and England, and we have been working closely with those colleges.

If I may, I would like to outline some opportunities that we see as curriculum related, and Damian might take the opportunity to outline some of the funding opportunities.

Outside Northern Ireland, we notice that new opportunities are developing in higher education apprenticeships. We believe that the college is particularly placed to work with innovation and industry to develop higher education apprenticeship models. We would like to see the development of that opportunity here in Northern Ireland. We have had approaches from employers about extending beyond level 3 into level 4 and level 5. We have also been working closely with awarding bodies as they develop higher education apprenticeships in England and Wales. We see opportunities in the Scottish model, such as progression degrees of two years plus a further year between HNDs and degrees, and the opportunities that foundation degrees present with regard to our higher-education offer and accelerated learning paths, particularly for part-time and online learners. We see opportunities starting to arise in England, where awarding powers are being taken by colleges to offer such courses as foundation degrees in financial services. They are engaging with those particular industries. Again, we see opportunities in those areas should they arise in Northern Ireland.

We also see more collaboration in Northern Ireland between the six further-education colleges to explore areas such as renewables, digital IT and open source, where we collaborate through the sharing of source materials and our staff skills and capabilities in delivering programmes directly to industry. We think that, as a sector, we are maturing in that regard and can develop that further.

I will hand over to Damian, who will cover the EU aspect.

Mr Duffy: I will make points on areas where we see opportunities. We talked earlier about EU funding opportunities through the INTERREG and FP7 programmes. We think that there is significant scope for higher-education institutes, further-education colleges and the business community in Northern Ireland to extend their reach and engagement in those programmes, such as on a cross-border basis using the INTERREG and FUSION programmes and in strategic collaboration on the benefits of all-Ireland partnership on Europe-wide programmes in order to secure a bigger return.

We also believe that there is scope to build on the work of collaborative networks, which are supported by Invest NI. A lot of very good work is being done by Momentum, Digital Circle, Whisple, BioBusiness NI and other collaborative networks that have already been established. It is about trying to bring the work of those networks into a holistic system and to have a composite view of how we maximise the benefit of the work that they do and the opportunities that they identify. In order to achieve that, there may be a possibility of establishing some sort of overarching research and innovation council, as we have referred to it, to bring all of that research, development, innovation and implementation of opportunities together and to co-ordinate and facilitate the work of the various networks.

One difficulty that we have found with regard to the KTP programme, in which we have had recent great success, is that, often, it is not completely suited to the needs of SMEs. Therefore, we have tried to develop a route through the innovation system, starting with low-level innovation vouchers, which are low cost, moving to a KTP-lite scenario, which is a short-term KTP over six or 12 months, into mainstream KTPs, which are of longer duration. We see the possibility for some businesses to progress through that life cycle to the point where they could be ready for submission of FP7 proposals, which are quite onerous and labour-intensive with regard to finding relevant partners around the European Union.

In another area where we think that there are opportunities, there may be a role for Invest NI. It makes significant effort to support and bring the necessary information to the table. However, the fact is that the Horizon 2020 programme will increase spend in research, development and innovation from €55 billion to €80 billion. We need to get a bigger slice of that. The Republic of Ireland's share of the cake significantly exceeds that of Northern Ireland's. We are at the point now where we are looking at the next programme. We need to sit down and think solidly about how we improve our chances in that particular programme in the future.

I will finish on another issue with regard to opportunities, which is that, when we developed our curriculum strategy, we had a sense that we had to pin our colours to the mast and identify a number of sectors that we thought would be strong growth sectors. We will reshape our curriculum and course offering to meet those challenges. We often feel that Northern Ireland Plc needs to take a risk. It needs to identify some priority sectors where it feels that there are global growth opportunities, take long-term calculated risks and invest. Clearly, on the research and development side, the payback period on investment requirements on some high-level research and development, and even on innovation for SMEs, can be medium to long term. Therefore, that requires us to have a long-term vision of where we would like to go with regard to renewables, financial services, digital media or biosciences. We must choose the sectors where we think there are opportunities, take calculated risks and align our economic strategies and curriculum to respond to those needs.

The Chairperson: Thank you very much, Mr Duffy. I thank you both for your presentation and written submission, and I commend you on the good work that is being done.

If I may be so bold, your submission states that there is considerable emphasis on knowledge transfer projects, and that is a key element in the work you are doing in this area. I would distinguish that from what I have referred to as pure research at first instance, as it were. What you are really doing is going further, perhaps using research and applying it to a practical situation, seeing how it works, reporting back to companies and assisting them in skilling up their workers in a sort of bespoke fashion. Is that, effectively, the type of applied research work you are doing?

Mr Duffy: The reality is that, to date, the research and development arena has been the sole preserve of the universities. Our remit has been on the innovation part of the life cycle. We are looking at the implementation of —

The Chairperson: There is no point in having research and development unless you innovate. That is the whole point of it.

Mr Duffy: Our role is to support the implementation or skills development. We are the primary provider of support to Bombardier on apprenticeships programmes. We have a £2 million composites autoclave. That is a state-of-the-art facility. There is nothing like that on the island of Ireland, never mind in Northern Ireland.

What we are trying to do for ourselves and the FE sector is to have a conversation about how we move forward in a relationship with the universities from fairly sanitised co-operation or co-existence to real collaboration. How can we add value to the research and development work of the universities? That is what we presented in one of our slides about the innovation ecosystem. Our role is on the innovation side, and the success of the whole system can be improved if the FE colleges and the contribution that we have to make are clearly mapped out in the broader ecosystem. That requires us to have a more-structured dialogue with the universities about what our role can be and what capabilities we can bring to the table.

The Chairperson: But you are not trying to replicate the universities.

Mr Duffy: Not at all. It is a completely different thing.

The Chairperson: Your submission states that changes were made recently to the knowledge transfer project criteria, which made it more difficult for the partnerships with the FE colleges. When did that happen and how has it made the partnerships more difficult?

Mr Duffy: The knowledge transfer partnership programme was managed on a national basis. There is regional representation, and it is jointly funded by Invest NI. The changes happened around the tail end of last summer. The knowledge transfer partnership criteria were a wee bit more open-ended in the preceding three or four years. That meant that smaller companies could put marketing or export development proposals on the table.

The change in the criteria meant that it went back to being more pure research-driven and, let us say, more academic. Therefore, we were in a position where we had quite a number of successful big companies interested in KTP programmes. However, because the criteria changed and the focus seemed to shift backwards into research and development, their projects were not seen as being innovative enough.

At one stage, our KTP manager had a conversation and asked, "What would you see the success of a KTP programme being?" The answer was: "A good journal paper." For us, the success of a KTP is increased turnover, job opportunities and the opening up of export markets. We are having a good dialogue and conversation with Invest NI to try to address the situation, so the discussion is ongoing.

The Chairperson: This is a national, UK-wide thing that has been brought in?

Mr Duffy: Yes, but it works against our regional interest, because, if you think about it, a small number of companies in Northern Ireland are hi-tech, hi-spec and invest in research and development. Sixty per cent of the investment comes from 10 companies, and the majority of other companies are SMEs. They are working in the innovation field and are in that slice where small incremental steps or new products or new services can move them into a different space. Our question is this: how does Invest NI support those companies in that space? A KTP was a key tool, but the change in criteria works against the fabric of —

The Chairperson: The change in criteria is pushing the whole thrust of things backwards towards more pure research rather than applied research.

Mr Duffy: That is right, and the key thing for KTP companies is to remember that they contribute a third of the costs, and that might be for a £60,000 programme. There are small companies that are prepared to put their own money on the table to be part of a knowledge-transfer process.

The Chairperson: I want to move to another aspect, and then I will open up questions to colleagues. You talked a lot about the importance of networks in your paper, and it is clear that you are networking throughout the UK and throughout Ireland and, indeed, even beyond that. The important thing is networking. You referred to the benefits of the Club Met knowledge network. Can you expand a little on that?

Mr Duffy: In my opinion, Belfast Met and the FE sector in general are much closer to the ground and to small businesses and are much more connected, flexible and responsive. Club Met is a vehicle through which we try to connect with businesses. The outcome of that engagement with Club Met and the various networks and groups that we set up is that we have structured dialogue with businesses around their needs. A recent example was that we set up a renewable energy steering group. We invited DONG Energy to come to talk to us, and we are working with a company called B9. DEL and Invest NI were involved in the discussions, and, as a result of those discussions and that networking process, we identified the need to develop a wind turbine maintenance qualification for the simple reason that we were going out to attract investors to come into the wind turbine market but there were no accredited qualifications. Therefore, we set ourselves the challenge to go through the process to ensure that Belfast Met is the second college only in the UK to offer an accredited wind turbine maintenance programme. The programme was financed and its development went through the DEL assured skills programme, so it is matched closely to the needs of business.

The real benefits of the process on the networking side are that we have had the opportunity, in a structured way, to listen to the needs of a number of companies. We have reflected on that, and, in discussions with DEL, we have been able to put a solution on the table. A lot of good work is done in the sector skills councils and in the various collaborative networks that have been established, but some of the implementation of that is lost. The strategic vehicle to translate that good work into the priorities and the skills needs is lost in some way because of the lack of an overarching body to facilitate that and cherry-pick the good ideas. We come up with good ideas from partners that we meet, and we would like to feed in to the business community, but, sometimes, we set up our own networks to do that.

Mr Dunne: You are welcome. We are impressed with the presentation that you have given to us so far. Has the college any plans yet to become involved in Horizon 2020, and, if so, how would you go about that?

Mr Duffy: We would like to be involved, but, in reality, under our current strategy, we have one FP7 project that will probably come to fruition next year. Horizon 2020 is an ambitious programme that will run over six years. It involves a big amount of money, and we would like to be involved. We feel that, although we are the largest college in Northern Ireland and the fourth largest in the UK, we are small in our size and experience. That is why the relationships with the universities are important, and it is through collaboration with the universities that we will have something to bring to the table. If the universities, the FE colleges and businesses can put clusters together, we could, legitimately, create sizeable projects to secure funding under Horizon 2020. There is such a broad range of sectors. What work against us are the time and resource commitments that are required. We do not have any dedicated resources for that, and we try to do it on the fringes of our existing business development activities. With their large knowledge transfer resources, the universities are probably much better placed to do that than we are.

Mr Dunne: Do you feel that the system is too complex?

Mr Duffy: FP7 is an inherently complex process. The institutes of technology in the Republic of Ireland evolved from a vocational setting to take on a degree-awarding status. One of the things that we have learned from our contacts with the institutes is that the Republic has had much more success. It seems to have a better set up and it is more actively engaged in FP7 and the opportunities that are presented by Horizon 2020. It also realises the benefits of putting together the European clusters and the return that can be made by doing that. We do not seem to be as well tuned in to that.

Mr Dunne: You mentioned that Northern Ireland companies will have to try to get more out of Horizon 2020. As a college, can you do anything to develop a programme for customers on how to source EU funding? Is that a possibility?

Mr Edwards: If that was to fall within the remit of education and training and providing people with that as a service, the college could explore that. That could be a possibility.

Mr Dunne: We were impressed by how you customise your programmes to meet the requirements of industry and your various customers. I think that that would be worth looking at.

Mr Duffy: Our engagement with the Leonardo Da Vinci and Erasmus programmes has been beneficial. The Erasmus student exchange programme will be massively expanded under the next round of EU funds. It is now called the Erasmus for All programme, and it really opens up the possibilities of student and staff mobility across Europe. Our staff get learning opportunities from those programmes, and two of our business advisors have just returned from Germany, where they were looking at the cradle-to-cradle approach to sustainable design that was developed there. We are involved in those programmes to learn from them and to bring back tools and techniques and look at their application in Northern Ireland. From an education and skills point of view, that type of engagement in European programmes is very useful. However, we need to work on and fund the mechanisms by which we share those skills and experiences and transfer them to the businesses that we engage with.

Mr Dunne: Is the challenge in getting the necessary funding to run the training or mentoring that is required?

Mr Duffy: Yes. The previous regional innovation strategy provided funds that supported companies to engage with and secure FP7 funds. I do not have the detail on the success of that, but you probably do.

Mr Dunne: On a general note, you mentioned the autoclave. I have been to Bombardier and have seen its impressive set up. Were you involved with it in the earlier stages?

Mr Duffy: Yes, we worked hand in glove with Bombardier to develop the spec for our autoclave. We are the main providers of apprenticeship programmes in Bombardier, and Michael Ryan and others fed into our discussions on what that autoclave would look like and how it would be used. We are also trying to ensure that Belfast Metropolitan College is a member of the new Northern Ireland Advanced Composites and Engineering Centre (NIACE) in the Titanic Quarter.

Mr Dunne: Is that the new building that has just opened?

Mr Duffy: Yes. If someone is doing an MSc in aeronautical engineering at Queen's University or the University of Ulster, the chances are that he or she will train on our autoclave. That is an example of the odd connections between the FE sector and the universities that people are not always aware of. If those connections were enhanced and we had a structured discussion, those connections could be much more beneficial in trying to link together the different pieces of the jigsaw. We do collaborate, but it is a matter of broadening that collaboration.

Mr Dunne: Would you say that composites technology is moving further beyond aircraft production?

Mr Duffy: Wrightbus is using composites, and composite materials are used in body armour. There are all sorts of applications for composite materials.

Mr Edwards: We directly link composites capability into various areas of our curriculum including the motor vehicles side. We also have the sports motor vehicle academy running in Mallusk, so we are taking opportunities to take in learners at all levels and expose them to the technology so that, as they progress through to higher education, they are already aware of facilities and have an underpinning knowledge of how to use them.

Mr Flanagan: Gentlemen, thank you for your presentation. I think that Belfast Met is making fantastic progress, and the new building is tremendous. I hope that all works out for you in the future.

In your response to the Committee's request for information that was sent before Christmas, you mentioned that Belfast Met will hold an FP7 event in February or March. Has that happened yet? Can you give us any more details on that?

Mr Duffy: It has not happened yet. We are working with Belfast City Council to secure, through Enterprise Ireland, an expert, who has a hell of a lot of experience and a track record in success, to present to businesses and give his perspective. There is actually limited experience in Northern Ireland. There are a few people who have experience of FP7. So, we have not organised that yet. We are in discussion with Belfast City Council about funding for it. The event would be open to any of the businesses that we work with and to anyone who has any interest in it.

Mr Flanagan: It would be useful if this Committee were to be given an invite and were able to attend. Once again, I hope that goes very well for you.

We heard from the Confederation of British Industry (CBI) when we were in Newtownards last week. It has advocated that a champion should be put in place to drive forward research and development here or that an organisation should be established by Government that would co-ordinate all R&D work here. Would you buy into that opinion? What are your views on that?

Mr Edwards: As Damian has outlined, collaboration is happening, and connectivity needs to come beyond collaboration. We would welcome the idea of exploring how we could better collaborate or better engage to benefit from each other's research and application. Joined-up education services can only support Northern Ireland further.

Mr Duffy: If you look at the model that we have presented to the Committee, you will see that there are different pieces to the jigsaw. It all needs to work together. If it is fitted together, then the engine can run quite well. We — the CBI, the Northern Ireland Science Park and the FE colleges — are all doing very good things. There is just a bit of glue missing that needs to hold all of this together and facilitate it. It does not need to be an expensive body; it just has to be a framework to facilitate the next piece of this discussion to really work through the research and come up with action plans to say that this is what we are going to do. There are the regional innovation strategies, which we have had for the last two iterations, but we need a bit of a push to try to bring the various parties to the table. At present, we have no vehicle to bring any ideas that we have to the table unless we were to have bilateral discussions with each university. There is no overarching framework to have a discussion around research, development and innovation and to co-ordinate the strategic policy approaches to delivery against that.

Mr Flanagan: That is the view that we are getting from most stakeholders, so I presume it will be an important facet of our report eventually. In your collaboration with institutes of directors and businesses in the South, which are really ahead of us in innovation and R&D, can you give us an example of a practical success or a win you have had as a result of working with an organisation in the South?

Mr Duffy: Good question.

Mr Edwards: We would have to go back and look, but we could report back to the Committee on the range of companies we have engaged with and had success with.

Mrs Overend: Thank you very much for your presentation. It was very interesting. From reading through your submission, it seems often to be the case that research and development requires a longer-term investment and the available funding is available only in the short term and there is no return within that. Is that something that you are finding or is your innovation work more short term?

Mr Duffy: The funding available for research and development from Invest NI and other sources usually has a three-year time frame. The employer support programme, for which we have just developed a strategic plan with DEL, looks at strategic interventions across a number of priority sectors, and that is

a three-year programme. So, funding sort of runs in three-year slices, which is probably tied in to the budgetary processes in some way.

Mrs Overend: That is what I am saying. The funding has that sort of time frame, but does that match your project? Do you have to re-adjust?

Mr Duffy: We have an action plan that will try to deliver a range of activities over a three-year lifespan, or we will engage staff to deliver on a programme in one three-year slice and then the next three-year slice. The employer support programme, to which we have just submitted a plan, was the successor to the DEL innovation fund, which was also a three-year programme. The Connected funds and so on run in cycles of three years rather than any longer-term commitment.

That is not necessarily a bad thing. Things can change quite quickly in three years. The priority sectors we identified in the regional innovation strategy five years ago, and those we identified in the current Northern Ireland economic strategy, have changed. Three years is a reasonable time frame, but the assurance of a role in the delivery is more important than the timescales of the programme. We would like to feel that we had a long-term role and engagement in the delivery of research, development and innovation, whatever that role may be, and were assured of where we fitted in the ecosystem. We could then get on with that.

Mrs Overend: Your presentation mentions that curriculum development is part of the long-term development. Surely that requires tailored careers advice to make sure you have the appropriate students coming into those roles?

Mr Edwards: We identified the seven areas through our curriculum strategy and mapped those back to the various strategies on economic engagement. With regard to a delivery package for that strategy, there were nine key areas, one of which was careers advice and guidance to learners prior to entry and increasing the amount of pre-entry advice and guidance that the college was giving, particularly around those curriculum areas.

We implemented that in September of this academic year and have had a significant increase in engagement from the public on that. We now require learners to attend a pre-entry session, regardless of where they are going to take up a place on the course, to make sure they have to hand all the information about what is involved with the industry directly.

With regard to developing the curriculum, Damian outlined how we are engaging with industry the other way. We are also able to use that back the way, so that we can ensure that what we are offering in assessment and curriculum areas is what the industry wants through our full-time learning. For example, Bombardier came in to tell us not just about the autoclave but the skills that are required to make best use of that autoclave and then adapting it. There was also the work with B9, where we were writing the qualification with them, because there was no qualification there, and putting it on the framework with major awarding bodies. The college uses its links with industry to shape its curriculum.

The institute is talking to our colleagues in Dundalk Institute of Technology (DkIT) in about the benefits they have in being able to do that at higher education as an independent body, whereas, as further education colleges in Northern Ireland, we are constantly going to various awarding bodies to try to work with them, which brings another party into the mix. Many of the awarding bodies that we work with have picked up the challenge and have become more responsive to industry. However, specialist areas can slow the process, and we just want to be as fast as we possibly can in delivering back to industry.

Mrs Overend: That is very interesting. On balance, do you do more work with the larger enterprises or small and medium-sized enterprises?

Mr Duffy: We do about £3 million a year of apprenticeship programmes with a large number of big employers. On balance, because of the scale of the programmes, a larger amount of money comes through big employers, but there are more engagements with SMEs, because the fact is that 90% of the businesses in Northern Ireland are SMEs. Uniquely, we have delivered KTPs all over Northern Ireland, for example, in Fermanagh and Warrenpoint. The KTPs that we have done have been across

the piece from small businesses and niche businesses to large, hi-tech ambitious companies with big plans and big turnovers. Depending on the needs, we can respond to different requirements. We are working with Citigroup, Allstate and Liberty IT — big companies and small companies. That is not unique to us, but is particular to the Belfast metropolitan area, where there is a large number of big employers that we connect with in different ways. Other FE colleges in other parts of Northern Ireland are in the same position in that they have a mix of interactions with large and small businesses.

Mr Edwards: One of the interesting developments is that large employers are seeing the relationship with the college developing with their suppliers, particularly in the IT industry, where we are developing relationships with small, innovative suppliers around mobile technology. Therefore, although we are doing the training for the large companies, they are then asking us what we are doing directly back with their suppliers and whether there could be an opportunity to roll out that training or education into the supply base. At that point, that hits the SME base. They spin off in the two directions in that balance and mix between big and small.

Mr Duffy: Let us say that Almac, a big company that we talked about earlier, has 2,000 employees. Probably only 200 of those are high-level, PhD-qualified with a costly input. The vast majority of the other 1,800 jobs will be technician-level, logistics and management jobs. We are in the volume skills-development-capacity game. Our bioscience laboratories at Belfast Met are industry standard and are as good as you can get in the whole of the European Union. Some of the historical perspectives around the role of the tech have completely changed, and we will be delighted to invite you to our new E3 facility when we get the keys. You will get a feel for the future of further and higher education, because we deliver further education and degree-level qualifications, so we are an FE/HE institute. We are keen to expand on our ambition to have a responsive and ambitious curriculum, and we are flexible enough and able enough to do that.

The Chairperson: We will look forward to that invitation. Are you happy enough, Mrs Overend?

Mrs Overend: Yes, I could probably go on, Chair, but thank you.

The Chairperson: There are no other questions from members. I have one final question on innovation vouchers. I am not sure how they work. Can you explain briefly how they work?

Mr Duffy: It is a very quick and easily accessible scheme. It uses innovation vouchers, probably of around £4,000. The company identifies a project and connects with Invest NI. If Invest NI agrees that they have a particular piece of work that they need done, it will give the company a voucher, through which that company can buy in a particular input.

The Chairperson: It is a very simple system.

Mr Duffy: It is a very simple process, and Invest NI has tried to make it as easily accessible as possible. You can have three or four innovation vouchers to look at different aspects. In the presentation, we were trying to say that that initial engagement around the pretext of an innovation voucher can lead to a discussion with the company about a bigger opportunity around KTP and so on. It applies to all sorts of businesses, including retail and agricultural businesses. It is a very open-ended brief.

The Chairperson: Thank you very much for your reply. That is very helpful.

Mr Agnew: Sorry, Chair, for not indicating earlier. Thank you for the presentation. As was mentioned, we were at the Ards campus of the South Eastern Regional College (SERC) last week, where Thompson Keating spoke about DONG Energy having a contract for offshore wind projects. If I remember correctly, it will manufacture in Germany and do the assembly and installation in Kent. Basically, it was felt that Northern Ireland was not in a position to take on those contracts. I hope that colleagues will correct me if I get this wrong, but one of the reasons for that, which he highlighted, was that we do not have sufficient training in health and safety in working offshore. I see that offshore energy is mentioned with regard to your Titanic Quarter campus.

You also mentioned work with DONG Energy and B9, which are key players in the industry; B9 is a local industry. What work is being done with the likes of B9, DONG Energy and Harland and Wolff to ensure that we have the capabilities to go right through the process, namely the manufacture, assembly, installation and retail of renewable energy projects? There are so many aspects of the business. Green energy is now one of the few growing sectors. It is a big question, but where are we now? Where do we need to get to, and how do we make that journey?

Mr Edwards: You talked about supporting the offshore industry from design to production to maintenance. As has been highlighted, Belfast Met, as a college, has the full qualification at the maintenance end. That includes the health and safety component and all the training requirements to allow for offshore maintenance support works. We are in a position to support the industry right now. We are already working on the delivery of that training. We had to completely innovate the way that we deliver and assess the courses, inventing new equipment to record the activity taking place at a windmill and deliver it through FlickKey. We had to integrate technologies. Therefore, not only did we have to redevelop the curriculum, we had to redevelop approaches to the delivery of the curriculum. We are in place. We are one of only two colleges in the UK that is capable of delivering that training. We are at the leading edge of that technology.

As has been outlined, in respect of manufacturing capability, we have foundation degrees on composites at both level 5 and level 3. With the new autoclave facility coming online in April, we will have the technology to deliver composite design and manufacturing as well as to support those skills areas. We are moving on with that agenda, and it will go live for delivery with our mainstream curriculum in September.

We already have the design skills capability in the college. It is not necessarily specific to wind farm or green technology, but it is design in construction manufacturing and, therefore, goes across that field. As you identified, Belfast Met has worked with the companies. It is that collaboration with companies that will deliver the skills as they roll this out. It is a growing area of the economy, and B9 itself is a growing company. As opportunities arise, we are stepping in.

You talked about the development of qualifications from start to finish. We are reducing the development time of qualifications significantly so that, as soon as the demand arises, we put in place the qualification for the skills. B9 is an example of exactly how we want to operate in future. Although some points of that are not on stream right now, they are very near to coming on stream and have the capability to do so.

Mr Duffy: In the centre for business excellence, we have now appointed a dedicated renewable energy sectoral adviser, whose full-time job is to look at and understand opportunities and participate in European programmes to bring back expertise. Our E3 facility is a BREEAM category-1 building. We have made any sustainable input that we could make. It has a wind turbine, a woodchip pellet burner and so on. It will probably be one of the most sustainable buildings in Belfast.

In the sector, a working group has been established to work with SERC to explore and understand the DONG opportunity, what it constitutes and how we, as a sector, respond to the renewable energy agenda. It is the same for the other priority sectors that we have identified. There is a lead college in each of those six or seven sectors. SERC has an expertise, and we have a capability. We will bring those capabilities together and offer a collaborative solution to the likes of DONG and other investors and say, "Listen. The FE sector in Northern Ireland has a capability to respond to your skills requirements, whatever they may be." DONG has been in Belfast Met, and we have presented to it. We have also talked to Invest NI and DEL. The discussions are ongoing. When we looked at the workings of wind turbine maintenance and operation, we found that the electronic bits and pieces inside the wind turbines are being developed by Siemens. That led us off to Dublin to talk to Siemens about the contribution we may or may not be able to make to the electronic boards that control the wind turbines. We are trying to get up to speed quickly and to be able to offer a solution.

To go back to the point that I made about making decisions and taking risks, renewables would be one of those areas. The Northern Ireland economic strategy says that work is still ongoing to identify the opportunities. Let us tune in quite quickly to those opportunities, because there is tremendous scope. We, as a college and as a sector, are trying to respond to those opportunities.

Mr Agnew: I appreciate that. You will not be surprised to hear that I absolutely support you in taking a risk in renewables. As risks go, it is one of the safer ones. It is inevitable that the industry will grow further. Are you aware of any other barriers to Northern Ireland getting those contracts? If so, is there more support that you could be getting from the Department of Enterprise, Trade and Investment or any Department?

Mr Duffy: Scotland has a £70 million or £80 million renewable energy fund in place to support the development of the industry, attract foreign investment and so on. I am not sure that we plan to set aside that sort of money. However, if we think that it is a priority sector, and if we want to compete in a global market place and gain a foothold quite quickly, we need to think about how we can use the likes of Horizon 2020 and other programmes to attract funds to do that.

The Chairperson: I think that that brings our session to an end. Mr Duffy and Mr Edwards, thank you for attending and for your important input into the inquiry. If we need to write to you about any other matters, I am sure that you will be able to respond.

Mr Duffy: Thank you.