Interview: Una Halligan – Chairperson, Expert Group on Future Skills Needs (EGFSN), Ireland



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Una Halligan, Chairperson of the Expert Group on Future Skills Needs (EGFSN), outlines the findings of its recently published report on the biopharma industry, the advantages Ireland can offer the global biopharma industry, and her thoughts on the importance of open communication and collaboration between industry and the educational sector.

As Chairperson of the Expert Group on Future Skills Needs (EGFSN), can you outline your mandate?

Essentially, our main mandate is to advise the government on the skills and education needs of industry, both current and future, in order to promote enterprise and employment growth. We reach out to industry, both indigenous and international, to gather feedback, we compile them in our sectoral reports, and then we convey our findings to training providers at all levels of education and skills as well as to the public sector to inform the government's action plan for jobs.

The group was set up in 1997 initially as a response to intense competition within the Information and Communications Technology (ICT) sector for skills. We wanted to find out what companies wanted to position Ireland to better attract foreign investment, and we worked alongside the investment agencies, IDA Ireland as well as Enterprise Ireland.

This new 2016 EGFSN report on biopharma industry updates on the 2010 one. Then, the main recommendations were for the industry to adapt to the patent cliffs and increase

the level of formal academic-industry collaboration. What has the progress been on those fronts?

Firstly, the patent cliff issue has more or less worked its way out and the industry on the whole as responded admirably to it. Notably, the decrease in employment has not been as high as was expected as it has been offset by new industry advancements and investments. This is very positive.

Secondly, there has indeed been recognition within the biopharma industry of the need for strengthened collaboration with academia to ensure the relevance of programmes – and this general wake-up call has been heard across all sectors within Ireland in the last few years. Our Springboard programs have facilitated this substantially by mandating work placements with industry. Industry-led work placements are very focused because once a company is sponsoring work placements, they start defining a clear set of skills and responsibilities they want, and this leads to significant industry-academia collaboration. On the other hand, academics involved in these programs are exposed to industry research and they start to see potential opportunities for collaboration on that level.

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Particularly within the biopharma industry, this cross-transfer of experience and expertise is quite strong, with the cluster in Cork being a great example. The Cork Institute of Technology (CIT) and University College Cork have been highly involved in such collaborative efforts since the early 2000s.

In terms of alignment between industry needs and training, there still remains a gap but this is mainly due to the expansion of the biologic space since 2010. Within this space, catch-up still needs to happen and it is understandable because this is a new area for Ireland and it is increasing very significantly. There will be an inevitable time-lag before supply meets demand but we are seeing very encouraging progress on multiple fronts.

Understandably then, the 2016 report focused on biopharma manufacturing. Can you take us through the main findings?

The biopharma industry is one of the fastest growing sectors in Ireland, employing 28,200 people in 2015 and accounting for over EUR 30 billion in exports, an increase of 36 percent over the previous year. Headline figures are that the biopharma sector will contribute an additional 8400 jobs, with 5000 being new jobs and 3400 through replacement demand, in the next four years.

Ireland is also winning significant investments in biopharma, with capital projects amounting to over EUR 4 billion in the pipeline for the upcoming years.

There has also been a specific focus on biologics manufacturing as a growing subsector within the industry. For instance, the number of biologics manufacturing sites in Ireland has risen sharply from 2 in 2003 to 18 in 2015.

In terms of opportunities for further growth, we see there is limited general awareness of the scale and success of the industry within Ireland, with a resulting gap in the supply of skilled labor specifically relevant to the biopharma sector. We also found the need to promote soft skills like problem-solving and communication in our workforce – and this applied across all sectors.

EGFSN looks at the entire labor force for Ireland across a variety of industries. What lessons do you think the pharma industry can learn from other sectors?

A common finding across all our reports is that if people are unclear about the potential or expected career progression or prospects within an industry, they are less likely to pursue it. There needs to be more clarity around this. The ICT sector is a good example, as they have done a very good job of telling the story about their industry and the job opportunities within it. They had to become very aggressive in selling themselves because there was such a skills shortage and the industry itself was growing so quickly. Through sheer necessity, the ICT industry became very good at promoting themselves and sharing the diversity and excitement of working in the industry with the workforce.

It is all about communication – not just to students but also their parents, who may not necessarily understand the full potential of the industry, particularly if it is, as the biopharma industry is, undergoing significant transformation.

The report also look at Ireland’s competitors for biopharma manufacturing, most notably Switzerland and Singapore. What are Ireland’s comparative advantages?

Ireland has many strengths, as evident in the fact that nine of the top ten pharma companies are based here. That robust ecosystem, which you will see in all the clusters we have around in the country in places like Cork and Dublin West, is itself an attractor. It means there is a strong talent pool for companies to choose from, and that is very important. We also have a strong demographic, with the youngest graduate population across Europe.

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The stability of our political system is also very attractive, not just in terms of overall political stability but in the consistency of our industrial policy. MNCs, when they are looking to sink multimillion investments in a country, are looking for stability. Here, not only do they know that agencies like IDA Ireland are actively supporting FDI, the overall industrial policy of staying open to international investment has remained consistent through all government transitions.

This stability also means that the public sector can have the foresight to invest in game-changing initiatives like the National Institute for Bioprocessing Research and Training (NIBRT), which has been a significant anchor for international biopharma investment. It is unique in being an experimental training facility set up under the same stringent regulatory conditions as any industry manufacturing facility, which allows companies to send their employees there for training. Nearly 1000 unemployed people have been trained under a one-year Springboard biologics program through NIBRT.

We also have a very strong private sector who are very proactive in setting up skills development programs, for instance, BioPharmaChem Ireland (BPCI), the manufacturers' association, who is taking the report's recommendations very seriously.

To discuss EGFSN's work more broadly, as an intermediary between government, educational institutions and the private sector, how do you manage the different priorities and motivations that must exist?

The most important thing is transparency. EGFSN is very careful to stay neutral – we do not want to put all our eggs in one basket and lobby excessively for any particular sector. Naturally, we do pay attention to strategic industries like the ICT and biopharma, because these are both huge growth sectors and we foresee continued substantial growth. That said, we have also looked at other important sectors like hospitality and freight transport, most recently, and we always try to apply a balanced approach.

We are also directed by requests from government ministers, who may be interested in having a study done in their particular portfolios. An example of this is the recent report we did on the marine sector.

Another aspect of this transparency and balance is that we try not to overemphasize graduate sectors and third-level recruitment. PhD and Master students do contribute to Ireland moving higher up the industry value chain but there are also many people who are looking for jobs that are not in that graduate space. As an organization, we are very conscious that we must take a holistic perspective and consider the education and skill needs of people across a variety of sectors.

The EGFSN functions as an advisory group, so how do you ensure accountability of stakeholders to your recommendations?

All our recommendations have defined owners – the groups or entities that are responsible for implementing them. For instance, if we say there should be more graduate positions within an industry, we list the relevant entity that we think should be in charge of delivering on that. Six months after the report is launched, we go to the relevant stakeholders and assess their progress. This approach promotes accountability.

What is important for us, on the other hand, is that we remain flexible and adapt our recommendations to the changing needs of the industry. For instance, when Hewlett-Packard (HP) first came to Ireland, there was a huge need for technicians because they were manufacturing ink cartridges and the like here, along with their competitors like Intel, Xerox and IBM. A few years later, Ireland's position on the value chain shifted and these tech companies suddenly wanted more R&D here, so demand for PhDs increased. In these cases, we need to return to our reports and update them. This is why, for instance, we just released our second report on the biopharma industry, which updates our 2010 report. We need to always be receptive to changes in business needs, and I think we are doing well on this front but we can always do better.

Higher-level education providers particularly need help with this, because they find it more difficult to change direction, especially the university sector, due to the longer duration of their courses. It is harder for them to predict the industry skills needs at the end of four years. We have been exploring ways of facilitating this, most notably through our Springboard programs, which are shorter programs that focus on reskilling or upskilling. For instance, a graduate with an art degree can use Springboard as a way of converting his degree into an ICT or engineering one.

What is your final message for our international audience?

As the Taoiseach said, we are very much open for business. Ireland's value proposition, it seems to me, is that our small size means companies have great access to policy influencers. The public sector is very receptive to industry and companies are able to communicate their needs directly to them, through organizations like IDA Ireland, for instance, without sacrificing transparency. Given the strategic importance of the biopharma sector, companies would be able to deliver very strong messages.

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