'The Future of Work'

Ann Riordan's Address

to

British Irish Inter-parliamentary Assembly Plenary

Monday 31 March, Royal Hospital Kilmainham, Dublin.

- "Did You Know?/ Shift Happens" is a series of videos which you can view on YouTube, which asks us to consider some thought-provoking points about the Future of Work. I think several of them are highly pertinent to our deliberations today:

-The US Dept of Labour estimates that today's learner will have **10-14 jobs by age of the 38**

- **1 in 4 workers** have been with their employer for **less than a year**, **1 in 2** for **less than 5 years**

-The **top ten in-demand jobs** in 2013 did not exist in 2004

-We are preparing students for jobs that don't exist, using technologies that haven't been invented, to solve problems we don't even know are problems yet

-**3.5 zetabytes** of unique new information will be created this year; that is more than in **the previous 5000 years**

-the amount of new technical information **is doubling every 2 years**. For students starting a 4 year course this means that half of what they learn in their first year will be outdated by the third.

-Predictions are that by 2049 a $1000 computer could exceed the computational capabilities of **the entire human species**

- These are **daunting challenges** that we as policy makers and leaders need to **embrace** if our economies are to succeed in the 21st century

- We need to consider whether our **educators are equipped** to train the next generation to deal with the **information avalanche**.
- **Enquiry based learning** and the ability to **access and analyse information** are absolutely critical skill sets which we need to have embedded within our education systems and in turn our young people. Because, while we don't know the challenges they will have to face, we do know that we have to equip them with the confidence, skillset and ability to drive solutions to those challenges. The rate of change is such that what they learn, content-wise, could be out of date by the time they graduate so how they learn to use information to **deliver solutions** will become the real value of education for them.
- This needs to begin at the earliest levels. We need to reflect on the time spent in our schools on **science, technology and mathematics**, on the **quality of the teaching** for these subjects. **Teachers need to be valued** if we are to attract the best into that profession.
- Science Foundation Ireland is currently providing additional training to primary school teachers through the SFI Discover programme. **Discover Primary Science and Maths** provides problem-solving based learning material, and gives teachers the tools to deliver that content.
- We are all conscious that the demand for **flexible, creative and skilled ICT staff** is not a future need, but an immediate deficit.
- Last year European Commission President, José Manuel Barroso called on Europe's digital businesses, governments, training and education sectors to join a **Grand Coalition for Digital Jobs** to address up to 900,000 ICT job vacancies expected to exist in Europe by 2015.

- Ireland currently has over **4,500 unfilled ICT vacancies** and the potential to generate over 10,000 new ICT jobs in the short term if it can unclog the 'skills bottleneck'
- Despite the current levels of unemployment, the number of digital jobs in the EU is **growing by more than 100,000 per year,** but the number of additional ICT graduates and skilled ICT workers is not keeping up.
- When I set up **Microsoft Ireland in the early 90s** there was a serious IT skills shortage which was impeding the growth of the company and the roll out of technology into the market place.
- I met this challenge by working with organisations supporting the long-term unemployed and offering **certified training programmes**. The programmes that were developed provide a fast track to **marketable technical skills** for those most vulnerable to sustained long term unemployment, and have provided thousands of qualified staff to the Irish ICT sector over the years.
- Given the dynamic nature of today's workforce it is important that we develop a range of talent to meet business needs. Science Foundation Ireland, through initiatives like the **Insight Research Centre** in Data Analytics, is producing essential fourth level graduates with Masters and PhDs. These students are given the opportunity to interact with industry throughout their studies to ensure that they are "**work-ready"** by graduation.
- Fourth level graduates are **not the only requirement of industry**; we need to ensure that all of our graduates, from diploma to PhD level are prepared for the world of work.

- Science Foundation Ireland, through the **Smart Futures programmes**, is working with industry to provide science, technology, engineering and maths careers information to second-level students, parents, teachers and careers guidance counsellors in Ireland. The programme is a great example of working together to achieve a common goal.
- We should be very proud that **CoderDojo** originated in Ireland. I believe that many local industries have opened their doors to support some of the almost 150 dojos in Ireland today. As well as supporting the next generation to learn an important skill, by opening their doors those companies are allowing the children to ask the question – "do I want to work here?"
- In rural Ireland, a **'meitheal'** was a band of reapers or a working party. Neighbours would gather together to support one another and work collectively to bring in crops. I believe that we need to channel this community spirit today. I echo President Barroso's call that government, industry and educators need to come together to create the workforce of tomorrow.